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"Change the way you look at things and the things you look at change."
— Wayne W. Dyer

Behavioral biases are common and widespread in the investing world. For instance, when we hear "bonds," the preconceived notion is they are generally safe investments. In this seemingly endless period of low rates, investors are squeezing everything they can out of fixed income and are reaching further out on the risk curve to generate higher yield. Despite the riskier nature of these higher yielding investments, the fact that they are still bonds gives comfort and security to investors. However, is this perceived security warranted?

Many times, investors will sacrifice credit quality, liquidity and diversification for a few extra hundred basis points. Imagine not knowing any of these factors and having to choose between two bond funds using their historical 15-year performance. Which is better?

	Bond Fund 1	Bond Fund 2
Avg Annualized Return	5.9%	7.5%
Annualized Volatility	5.1%	4.0%
Sharpe (0% risk-free rate)	1.2	1.9
Worst Daily Return	-4.7%	-3.0%
Best Daily Return	2.3%	1.6%
Worst Drawdown	-30.3%	-15.1%

Based on the numbers, Bond Fund 2 is superior. A couple hundred extra basis points annually, lower volatility and half the worst peak-to-trough drawdown of Bond Fund 1. What if Bond Fund 2 returns are generated by selling option straddles on the S&P 500, delta-hedging them every day all wrapped into a bond?

Some investors believe selling option straddles is dangerous because of the short volatility exposure. This belief may lead them to switch their choice to Bond Fund 1, despite its inferior performance. Investors can be biased to believe that *all* volatility or options exposures will blow up with the one-hundred-year storms experienced in the market every five years. This bias is extremely costly.

Bond Fund 1 is the total return of the Vanguard High-Yield Corporate Bond Fund. Many believe that a high-yield bond investment is safer than a strategy that sells index options and delta-hedges every day. *The perception of risk may far outweigh the actual risk.* Selling straddles can be risky when executed the wrong way. There is a significant difference between a naked straddle versus a delta-hedged straddle.

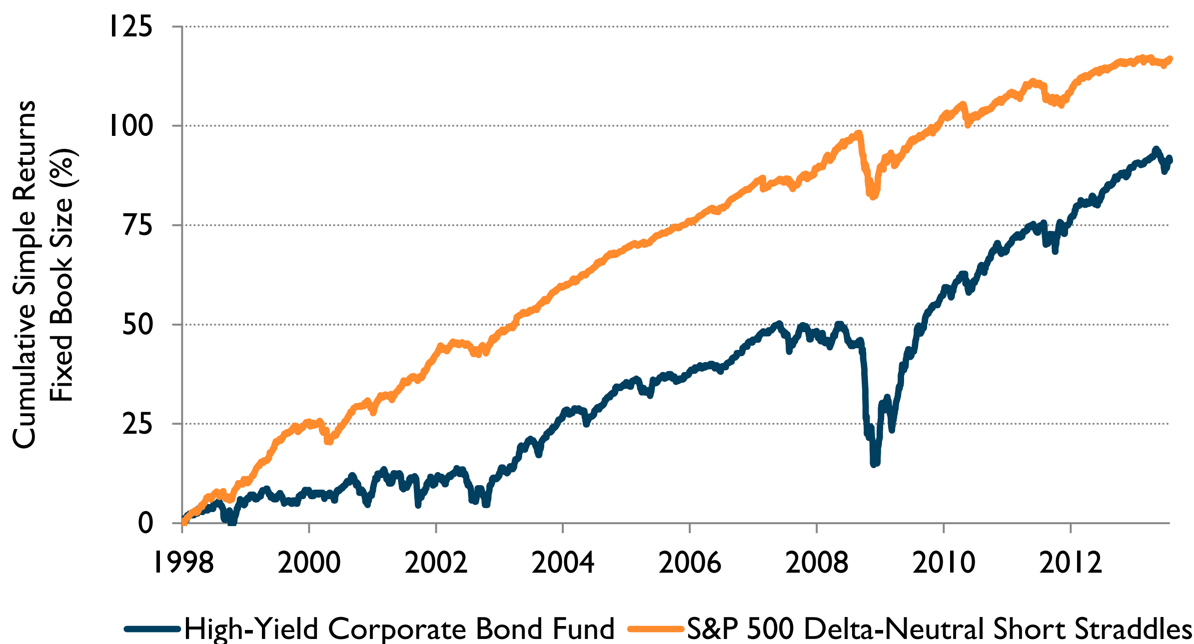

Figure 1: Cumulative simple returns on a fixed book size, including dividends and interest. The High-Yield Corporate Bond Fund includes interest and distributions in the returns. The Short Straddle Strategy sells an equal number of at-the-money calls and puts on the S&P 500 in a fixed notional size each month. The Short Straddle Strategy is delta-hedged each day using S&P 500 futures. Bid-offer spreads and transaction costs have been included.

Is it surprising that the delta-neutral short straddle strategy dramatically outperforms over a 15-year period? This outperformance is partially driven by the inflated perception of risk of trading options. Fewer option liquidity providers are able and willing to inventory *hedged* options positions. This creates a niche and opportunity to generate performance. Delta-hedging is analogous to option replication, which we have written about in previous letters.[1]

The misperception that a bond is safe or that options are risky can be a dangerous bias. It is important to remember that bonds have optionality and convexity embedded within them. Buying a bond is equivalent to selling a put on the assets of the company. **In other words, buying a bond is similar to an *un-hedged* short volatility strategy**.

[1] http://lakehillgroup.com/files/Lake_Hill_Capital_Management_September_2012_blog.pdf

Depending on how you look at it, bonds may appear safer when in fact they can be much riskier, and options may appear riskier when in fact they can be much safer.

It is important to note that both strategies are risky. We do not advocate systematically buying or selling options or bonds. Neither strategy is guaranteed to be profitable. Simply calling something a bond or an option does not automatically make it more or less risky.

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