

## Below the Black: A Review of Risk Reduction Strategies

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[The full article may be accessed here.](#)

### Central Issue of the Paper

As the CBOE volatility index (VIX) continues to hover at all-time lows, we felt it was appropriate to revisit an archived piece by Mike Sebastian and Zoltan Karascony titled "Tales from the Downside: Risk Reduction Strategies." In times of increased volatility, the primary lever clients have to reduce total portfolio risk is a shift from return-seeking (equity, risky fixed income and alternative assets) to risk-reducing (fixed income) assets. But historically low fixed-income yields (which is true now more than ever) mean bond allocations won't likely contribute much toward total portfolio return objectives, and at the same time they carry risk in terms of falling bond prices when rates rise. Investors continue to want a way to reduce risk, especially the risk of large losses in tail events, but without giving up much return. In response, a host of products advertised to reduce risk, without reducing return, have appeared since 2008. This paper discusses several potential strategies for limiting risk, including low volatility equity strategies, tail risk products, managed futures and global macro hedge fund strategies.

### Approach Employed by Paper

#### *Low-Volatility Equity Strategies*

This paper begins its low-volatility equity assessment with a straightforward analysis of the potential effect in a sample of large, liquid stocks. They calculated a five-year rolling beta for the 100 largest stocks in the S&P 500 index, over the period 1990-2011, to rank stocks by level of market risk. The stocks were divided into three groups in each month; the lowest-risk 30%, the middle 40% and the highest-risk 30%. Stocks were equal-weighted within each group. They avoided capitalization weighting to be consistent with actual low volatility equity strategies, which more closely approximate equal weighting (in an active strategy) or weighting by volatility rank (many indexes).

#### *Tail Risk*

Following 2008, several investment managers developed products that are designed to perform extremely well in periods of market distress. This is accomplished through a combination of strategies, including derivatives contracted on the returns of major markets. Such protection strategies have one common characteristic—because they provide protection from risk, like homeowner's insurance, they have a cost, like an insurance premium, associated with them in normal (non-crisis) times. This is

termed a negative carry—a consistent, regular loss attributed to the strategy to cover the costs of protection. This negative carry is made worse by management fees, which can be substantial.

*Risk Mitigation: Managed Futures & Global Macro*

Managed futures tend to profit from rising markets as they continue to rise and, because the strategies involve short as well as long investments, gain from falling markets as they continue to fall. Managed futures returns have an options-like payoff structure, where all else equal returns benefit from periods of persistent market volatility. As a result, managed futures have historically offered strong returns in volatile and negative market environments.

Global macro hedge funds represent possibly the most unconstrained investment strategy available. Like managed futures, but with a much stronger emphasis on discretionary, judgment-based portfolio management as opposed to quantitative, algorithmic trading, global macro managers invest in a wide variety of asset classes using mostly derivatives to maximize flexibility and minimize trading costs. Trading among major markets such as stocks and bonds, global macro strategies thrive in periods of elevated volatility. Their go-anywhere style allows them to emphasize, or avoid entirely, entire markets depending on their views—uniquely suiting them to navigate market uncertainty.

**Findings of the Paper**

For low-volatility equity strategies over the entire period of their study (January 1990 – October 2011), they found high-beta stocks had the highest returns while the low-beta stocks had the lowest returns. In other words, there is no evidence of a low-volatility effect. In their research, they found that betas can vary significantly over time, making prediction difficult. Idiosyncratic risks can cause betas to spike unexpectedly. Moreover, their examination of historical market risk shows that yesterday's low volatility stock may be tomorrow's risky venture. They found that betas spike when companies are distressed. Low historical beta/risk may not translate into low future risk. Even stocks that are considered defensive have had significant changes to their betas over time.

With respect to tail risk strategies, the consistent drip of portfolio value in return for protection from an unknown future event may be difficult to stomach. A disadvantage of tail risk protection strategies as described earlier is their ongoing cost of hedging, which results in a drag on total fund returns, or a need for successful market timing to add tail risk protection just before it is needed most.

Managed futures on the other hand, with their ability to add to returns in times of distress, have what can be described as an offensive, rather than defensive, approach to downside risk. Global macro also appeared to be able to benefit from both risk on and risk off environments.

The paper recommends that clients who wish to make some protection from tail risk a part of their investment strategy consider allocating a portion of their alternatives or hedge fund allocations to a diversified group of managed futures and global macro managers rather than a low-volatility or tail risk strategy.

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