

A Risk Parody?

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Central Issue of the Paper

In Hossein Kazemi's Editor's Letter "Risk Parity and Volatility Targeting Strategies: Recent Performance," he highlights two volatility-based strategies that have recently increased in popularity. They are not active allocation strategies but are very different from traditional market capitalization weighting for strategic allocation. Recent news reports have speculated that fund flows to these volatility-based strategies have caused volatility to spike and equity prices to drop. Why are these strategies expected to work? How do they work? Do they impact the market? How have they performed and how are they expected to perform in the future?

Approach Employed by Paper

Risk parity and volatility targeting are two volatility-based strategies that work differently but are both expected to reduce portfolio risk or provide down side protection.

The risk parity approach adjusts portfolio weights so that each asset class is contributing the same amount of volatility. For example, an asset with low volatility would receive a higher weighting so that its risk contribution is the same as a higher volatility asset that receives a smaller weighting.

The volatility targeting approach applies (or reduces) leverage to a diversified portfolio in order to achieve a target volatility level. This strategy can be combined with a risk parity approach by applying leverage to a risk-parity portfolio to achieve a desired volatility level.

The editor's letter illustrates the theoretical advantages and disadvantages of these two strategies and then compares these to the actual performance of funds pursuing them, as well as to benchmark equities (MSCI) and a 60/40 portfolio. The hypothetical portfolios were based on the MSCI equity benchmark with a ten-month (2018) volatility of 8.7% and an October 2018 volatility of 14.1% and corporate bonds with volatilities for the corresponding periods both close to 4%.

Findings of the Paper

Beginning with the hypothetical results, for an unlevered risk-parity portfolio, results illustrate that if volatility on an unlevered portfolio is low, adding leverage increases volatility but decreases the information ratio. The hypothetical performance of a levered risk-parity fund with 50% leverage had an information ratio of only 0.854 versus an otherwise identical unlevered risk parity portfolio with an information ratio of 1.076. These both underperform the information ratio of 1.257 resulting from an unleveraged 60/40 portfolio with a volatility of 5.53%. The hypothetical 60/40 portfolio with a volatility target of 4.5% outperforms all with an information ratio of 1.34%.

For the actual risk-parity fund with a target volatility of 10%, performance over the first 10 months of 2018 had a volatility much lower than targeted because the markets were not that volatile, and the maximum leverage allowed was too low. Performance therefore suffered. In October of 2018, when the MSCI was down 8.1%, this same portfolio lost 2.5%. Therefore, some of the intended down-side protection was realized, but the 60/40 portfolio did better on an absolute and risk adjusted return basis.

These strategies are expected to work because there is past evidence that low volatility strategies perform better on a risk -adjusted basis than previously realized, or even theoretically predicted. As with any market inefficiency, as more money is devoted to the strategy the less effective the strategy becomes. As the news stories suggest, it is likely that when these strategies divest from equities as volatility spikes, downward pressure is applied to equities.

Generalizing from the illustrative examples, these strategies may often not perform as well as a benchmark 60/40 portfolio on a risk adjusted basis. This conclusion is dependent on how much money is directed toward the strategies, and the methodology used to measure volatility.
