



# PORTFOLIO RISK AND PERFORMANCE

---

## Working Your Tail Off: Active Strategies vs. Direct Hedging

June 1, 2015

Economic theory and empirical evidence support the idea that investors should, over the long term, be compensated for bearing risk. Thus, any discussion of tail risk should rationally start from the premise that it's something that contributes to a portfolio's expected returns.

In this paper we demonstrate that several active strategies that are straightforward to implement in portfolios not only deliver superior long-term average returns but also outperform direct hedges in prolonged market drawdowns. Importantly for investors, these indirect hedging strategies can be combined, and a portfolio of them may offer investors a more robust way to mitigate their sensitivity to the worst drawdowns in equity markets. In contrast, we find direct hedging is costly and only delivers value when combined with the ability to time short-term market crashes and the ability to unwind those hedges very shortly after those events. We question investors' ability to do either of those.

Capital market risk includes tail risk. While preparing for and embracing risk is one element of investing, a second element is to capture risk in the most efficient way possible. More efficient portfolios make it "easier" to bear risk if they can be constructed to be better behaved, with more-consistent risk levels and, ideally, fewer and smaller tails. Compared with direct approaches to hedging portfolio tail risk, the indirect approaches described in this study have offered a more efficient way of working your tail off. Directly buying portfolio insurance through options, while risk-reducing, does not lead to more-efficient risk taking.

This document is not intended to, and does not relate specifically to any investment strategy or product that AQR offers. It is being provided merely to provide a framework to assist in the implementation of an investor's own analysis and an investor's own view on the topic discussed herein.

This document has been provided to you solely for information purposes and does not constitute an offer or solicitation of an offer or any advice or recommendation to purchase any securities or other financial instruments and may not be construed as such. The factual information set forth herein has been obtained or derived from sources believed by the author and AQR Capital Management, LLC ("AQR") to be reliable but it is not necessarily all-inclusive and is not guaranteed as to its accuracy and is not to be regarded as a representation or warranty, express or implied, as to the information's accuracy or completeness, nor should the attached information serve as the basis of any investment decision. This document is not to be reproduced or redistributed to any other person. The information set forth herein has been provided to you as secondary information and should not be the primary source for any investment or allocation decision. Past performance is not a guarantee of future performance. Diversification does not eliminate the risk of experiencing investment losses.

This material is not research and should not be treated as research. This paper does not represent valuation judgments with respect to any financial instrument, issuer, security or sector that may be described or referenced herein and does not represent a formal or official view of AQR. The views expressed reflect the current views as of the date hereof and neither the author nor AQR undertakes to advise you of any changes in the views expressed herein.

The information contained herein is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Charts and graphs provided herein are for illustrative purposes only. The information in this presentation has been developed internally and/or obtained from sources believed to be reliable; however, neither AQR nor the author guarantees the accuracy, adequacy or completeness of such information. Nothing contained herein constitutes investment, legal, tax or other advice nor is it to be relied on in making an investment or other decision. There can be no assurance that an investment strategy will be successful. Historic market trends are not reliable indicators of actual future market behavior or future performance of any particular investment which may differ materially, and should not be relied upon as such. Diversification does not

eliminate the risk of experiencing investment losses.

The information in this paper may contain projections or other forward-looking statements regarding future events, targets, forecasts or expectations regarding the strategies described herein, and is only current as of the date indicated. There is no assurance that such events or targets will be achieved, and may be significantly different from that shown here. The information in this document, including statements concerning financial market trends, is based on current market conditions, which will fluctuate and may be superseded by subsequent market events or for other reasons.