

FACTOR/STYLE INVESTING

Understanding Expected Returns

January 1, 2012

Investors tend to think of expected returns as a function of asset class risk, but this thinking may have led them to take on too much equity risk. For behavioral reasons, diversifying across investment styles, such as blending momentum and value, may offer greater returns for less risk.

The five styles that I emphasize are value, carry, trend or momentum, volatility and liquidity. All of these return sources have some time variation in expected returns, and investors should try to take advantage of those differences. They should not look just at the long-run historical average and think that it will always be the same.

Style diversification is more effective than asset-class diversification. If investors combine various asset classes, they can create a portfolio that is similar to a global market-cap portfolio. They will not get much volatility reduction because the market direction dominates, so their Sharpe ratios will improve only by a small amount. By combining various trading styles that have, on average, near-zero pairwise correlation, investors can add good diversifiers (which may also have attractive Sharpe ratios). With this approach, they can cut their volatility in half and double their Sharpe ratio, but it does require shorting and leverage.

Once institutions address the equity risk in their portfolios, they can find other ways to enhance returns at the margin. One way is market timing. It should not be a primary form of risk taking, but it can add value.

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.