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## The Pros Don't Gamble; They Leverage

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By Editor Test     Mon, Jul 22, 2013

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*"Individuals with low IQ scores hold higher-beta portfolios than individuals with high IQ scores," says a footnote in a new research paper by two academics associated with AQR Capital Management. The paper explains how Warren Buffett, among others, gets rich.*

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Smart investors, like Warren Buffett, make money by borrowing to invest in low-risk, low-return securities, like soapmaker stocks. Other people, who don't have enough borrowing power to play the leverage game, can only generate profits by investing in riskier assets, like tech stocks.

The sad irony for those are in the second group—which includes most of us, including many mutual fund managers—is that they don't profit much from the risk they take. That's because their collective demand for risky assets tends to drive up the prices of those assets, thus reducing their returns.

Those are two of the takeaways from a technical and challenging but otherwise intriguing recent research [paper](#) by Andrea Frazzini and Lasse H. Pedersen of AQR Capital Management and the Stern School of Business at New York University. AQR is an \$83.7 billion Greenwich, Conn.-based firm that manages money for institutional investors and registered investment advisors. It was founded in 1998 by three Goldman Sachs financial engineers.

"A basic premise of the capital asset pricing model (CAPM)," Frazzini and Pedersen write, "is that all agents invest in the portfolio with the highest expected excess return per unit of risk (Sharpe ratio), and leverage or de-leverage this portfolio to suit their risk preferences. However, many investors—such as individuals, pension funds, and mutual funds—are constrained in the leverage that they can take, and they therefore overweight risky securities instead of using leverage... causing those assets to offer lower returns."

The paper goes on to answer the question: How does an arbitrageur exploit this effect? In the process, it makes a case for a strategy that the authors called "Betting against Beta," or BAB. This involves, in part, creating a portfolio that is "long leverage low-beta stocks and that short-sells de-leveraged high-beta stocks." The explanation of the authors' long-short arbitrage strategy will soar over the heads of 99% of readers, but the paper is also studded with nuggets like these:

- A portfolio that has a leveraged long position in 1-year (and other short-term) bonds and a short position in long-term bonds produces positive returns.
- A leveraged portfolio of highly rated corporate bonds outperforms a de-leveraged portfolio of low-rated bonds.
- [Mutual funds and individual] investors hold portfolios with average betas above 1. On the other side of the market, we find that leveraged buyout (LBO) funds acquire firms with average betas below 1 and apply leverage. Similarly, looking at the holdings of Berkshire Hathaway, we see that Warren Buffett bets against beta by buying low-beta stocks and applying leverage.
- Leveraged buyout funds and Berkshire Hathaway, all of which have access to leverage, buy stocks

with betas below 1 on average... Hence, these investors may be taking advantage of the BAB effect by applying leverage to safe assets and being compensated by investors facing borrowing constraints who take the other side.

- Individuals with low IQ scores hold higher-beta portfolios than individuals with high IQ scores.
- Younger people, and people with less financial wealth (who might be more constrained) tend to own portfolios with higher betas.
- The 1940 Investment Company Act places some restriction on mutual funds' use of leverage, and many mutual funds are prohibited by charter from using leverage. A mutual funds' need to hold cash to meet redemptions (in the model) creates a further incentive to overweight high-beta securities. Indeed, overweighting high-beta stocks helps avoid lagging their benchmark in a bull market because of the cash holdings.

The authors find that ordinary investors, without the ability to leverage, are in the same fix no matter where they look for added return. And when they do so, their net losses can create net gains for arbitrageurs with leverage who know how to capture them. The BAB strategy, these authors argue, wins in every asset class and in every market worldwide for those with "unconstrained" borrowing capacity.

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