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PORTFOLIO PERSPECTIVES

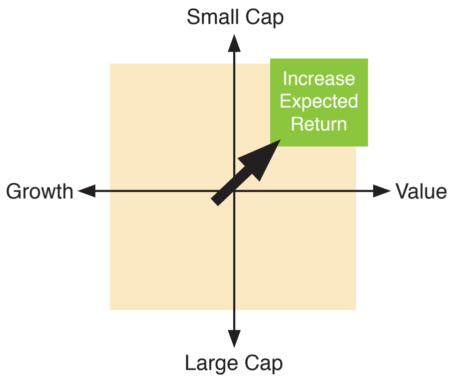
Baseball's Defensive Shift for Investors

By Sheldon McFarland
VP, Portfolio Strategy & Research
Loring Ward

Modern analytics changed the game of baseball. For 120 years, infielders treated most batters the same, playing them straight up, ignoring whatever tendencies they had to pull the ball. Not anymore.

Now, data companies specializing in sports analytics watch games, gather data and run metrics to come up with hit patterns for every player. Baseball managers use that information to shift defenses to the areas of the field batters typically hit. Employing advanced analytics that track every batted ball, teams use data today to improve the likelihood of getting batters out.

We apply similar techniques in our portfolio construction process. We survey almost 90 years of market data and research to identify certain investment characteristics, or factors, which have earned higher returns over time.



A Graphical Representation of the Fama-French 3-Factor Model.

Our Rosetta Stone of investing was carved in 1992 by Nobel Laureate Eugene Fama and his research partner Kenneth French. Fama and French found that stock returns are explained almost entirely by exposure to three factors: market, value, and small.[1] They found that as a portfolio's factor exposure changed, so did expected return.

The illustration below is a graphical depiction of Fama and French's research. To understand the image, imagine all the public companies around the globe laid out on the image. Companies are ranked on the grid with the largest companies at the bottom (think Apple, Google, etc.) and the smallest companies at the top. Then they are arranged from left to right by highest relative price (growth companies) to lowest relative price (value companies). A portfolio's expected return increases as exposure to small and value companies increases.

Fama and French's work occupies center stage for our portfolio construction process. We use the knowledge of these three factors to construct portfolios with higher expected returns than a simple market portfolio.

All of the research and analytics in the world cannot guarantee a portfolio will beat the market all the time and Fama and French's work is no exception. While increasing exposure to value and small companies increases expected return, the subjective word here is "expected." These factors are RISK factors and there are years or even decades where they just don't pay off. However, data and research show that more often than not, the factors pay off, especially when investing over the long term. Over the past 88 years the factors paid off over 60% of the time over one-year periods and roughly 80% of the time over 10-year periods.[2]

The Cardinals shift their infield to defend against Red Sox slugger Ted Williams in the 1946 World Series. (PHOTO: Paul Cannon/AP Photo)

The defensive shift is now ubiquitous in baseball; however, there was a time when it was used parsimoniously by a select few. The Cardinals were one of those few. They used the defensive shift as early as the 1946 World Series against Red Sox slugger Ted Williams.

Portfolios with factor tilts are becoming ubiquitous too, but firms like Loring Ward and Dimensional have a long history of constructing portfolios that focus on the Fama-French factors. Focusing our attention on factors we are able to create custom tailored portfolios based on the amount of each factor an investor is willing to tolerate.

We study the data and shift portfolios based on expected returns towards the factors with higher expected returns. But just as Bruce Bochy wouldn't position all of his players on one spot on the field, we wouldn't position an entire portfolio on one. Data and research help baseball managers build better defenses and help us build what we believe are better investment portfolios.

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[1] Eugene F. Fama and Kennith R. French, "The Corss-Section of Expected Stock Returns," Journal of Finance, 1992.

[2] Kenneth R. French Data Library, http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

Picture source: http://ftw.usatoday.com/2015/02/mlb-infield-shift-defense-ban-rob-manfred

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The risks associated with investing in stocks and overweighting small company and value stocks potentially include increased volatility (up and down movement in the value of your assets) and loss of principal.

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