

# Portfolio Perspective

Monthly Insights for Investors



## How Skydiving Can Help Explain Investment Risk

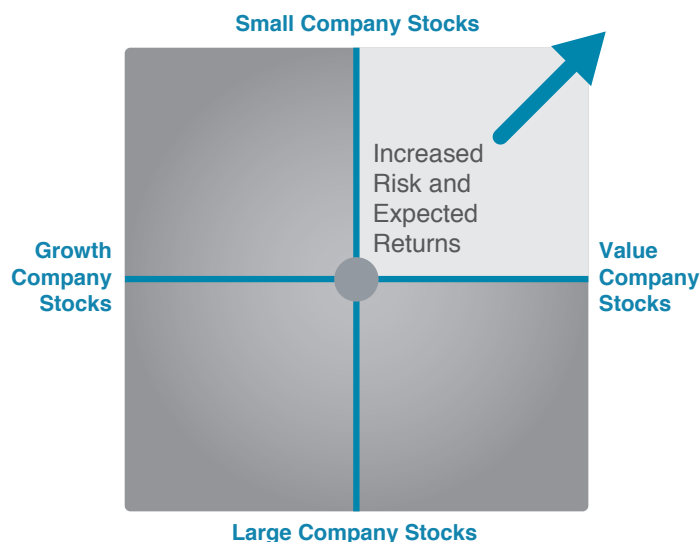
by Sheldon McFarland, Vice President,  
Portfolio Strategy and Research, Loring Ward

What can skydiving teach us about investing? It teaches about risk and reward, and can give you a perspective on risk that may change the way you think about investing.

If you've jumped out of an airplane at 8,000 feet and experienced the exhilaration of freefalling for 20 seconds, you know it's 100, maybe even 1000, times more exhilarating than riding a bike for 20 seconds. If it were not so, nobody would ever strap on a parachute and jump out of a perfectly good airplane. The reward has to justify the risk. The same logic holds for risk and return when it comes to investing in companies.

If a company's stock is priced rationally then risk and return are related. As a company's risk increases, investors demand higher return as compensation for the additional risk to invest in the company — just like skydivers demand greater exhilaration for jumping out of an airplane over riding a bicycle. In a rational world this has to hold. If two companies have different levels of risk but the same expected return, no rational investor would invest in the riskier company without additional compensation.

Company risks are multidimensional. Besides market risk, one dimension of risk is measured by size (market capitalization) and another is measured by value (book value divided by market value).<sup>1</sup> The relationship between these risks is illustrated in the chart below. Think of the chart as a map showing a company's risk exposure relative to the market in terms of the size and value risk dimensions. The market is represented by the point at the center of the intersecting lines. It is the average of all the companies in the market.



Small companies are typically riskier than large companies and have higher expected returns. Also, value companies are typically riskier than growth companies and have higher expected returns. As a company's plot moves from the origin — in other words, the market — towards the top-right corner, its expected return increases.

Now think about what happens to a company's position on the map as its stock price changes relative to the market. As a stock price increases, relative to the market, a company's size increases and its position moves towards the large-growth end of the map — the end with lower expected return. Conversely, when a company's stock price declines, it moves towards the small-value end of the style map — the end with higher

expected return.

Thanks to all the academic research on the risk-return relationship of companies, we have knowledge we can use to help construct more efficient portfolios. We use this relationship between risk and expected return to dial in the risk-return tradeoff of a portfolio to match an investor's risk-return target. We also use it to systematically rebalance positions within a portfolio, selling companies that have moved towards large-growth and buying companies that have moved towards small-value. It also helps us exclude securities from our eligible universe that, in our opinion, don't have sensible risk/reward tradeoffs.

<sup>1</sup> Size is calculated by multiplying a company's stock price by its number of shares outstanding. Value is calculated by dividing a firm's book value per share by its current stock price per share. The number of shares outstanding and book value are relatively stable but stock price changes daily.

Diversification neither assures a profit nor guarantees against loss in a declining market.

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.

Small company stocks may be subject to a higher degree of market risk than the securities of more established companies because they may be more volatile and less liquid.

Rebalancing does not guarantee a return or protect against a loss. The buying and selling of securities for the purpose of rebalancing may have adverse tax consequences.