Gyroscope Capital Management Group

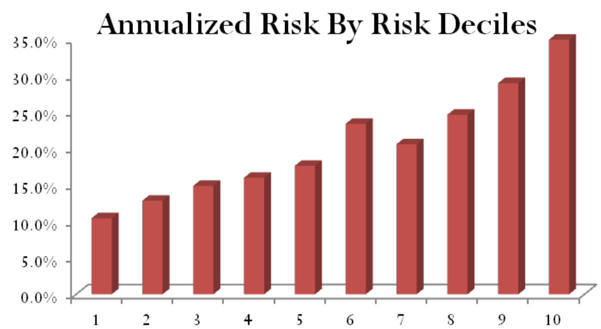
Tuesday, August 15, 2017

Quarterly Review and Commentary

A tenet of modern finance is that over time investors are compensated for bearing higher risk in the form of higher returns. Since its inception in the early 1960s, the Capital Asset Pricing Model (CAPM) has assumed that expected return can be modeled as a linear function of a market sensitivity factor or market beta. CAPM suggests that, over time, higher-volatility stocks should outperform lower-volatility stocks.

However, the empirical data suggest that riskier assets, measured by both standard deviation and market beta, underperform low-risk assets over long time horizons. In other words, these studies suggest that by reducing their exposure to market risk investors may achieve superior performance at a lower level of risk. While few investors would argue that stocks are both riskier and higher-return-generating asset than lower-volatility bonds, lower-volatility securities within like asset classes have tended to outperform their higher volatility counterparts. Not only has this phenomenon been documented by numerous researchers in U.S. markets, but also in all equity markets in the world as well as other asset classes.

The following graph illustrates the risk/return tradeoff in the U.S. stock market from 1990-2011. The graphs illustrate the performance of 10 risk-ranked portfolios (decile portfolios) by placing 10% of all U.S. stocks in each portfolio based on trailing two-year standard deviation.



Haugen, Robert A. and Nardin L. Baker (2012), "Low Risk Stocks Outperform within All Observable Markets of the World," https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2055431

WHAT IS LOW VOL INVESTING?

In finance, volatility is the variation in an asset's price over a series of time as measured by the standard deviation of returns. However, standard deviation is a measure of *overall* risk. *Market* risk is often measured by a systematic risk factor or market beta which is used as a proxy for exposure to the overall market. Low volatility stocks are thus those with low standard deviations and/or low betas.

DOES IT WORK?

Based on the historical data, lower volatility stocks have generated more alpha than higher volatility stocks. Over the last 50 years, this phenomenon has been documented by numerous researchers in U.S. markets as well as most other equity markets around the world. These studies apply varying methods and address various concepts related to the low volatility phenomenon yet reach the same general conclusion: high-beta assets tend to have low (or even negative) alphas, and low-beta assets tend to have higher, positive alphas.

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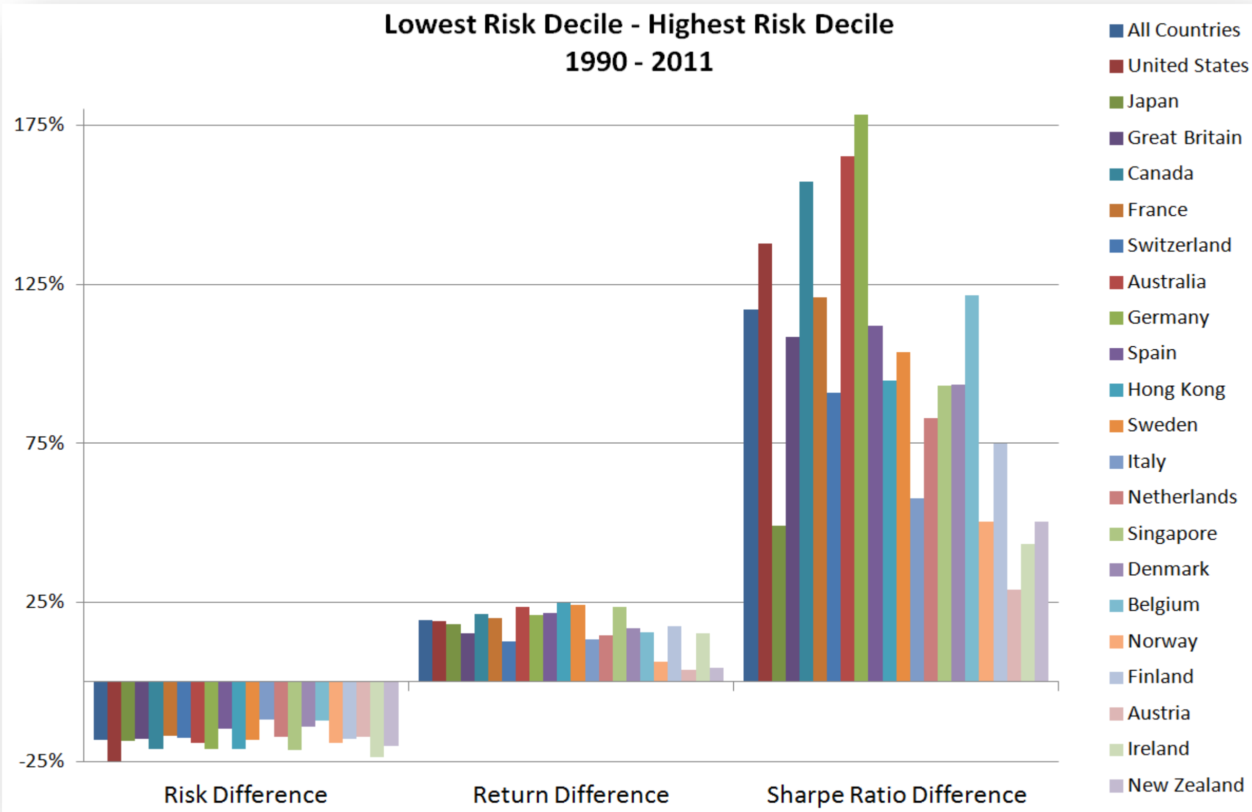
The following graph depicts data from a test conducted by Nardin Baker and Robert Haugen. The test covered 21 developed markets over a 22 year period (1990-2011) and compares the lowest risk decile portfolio with the highest risk decile portfolio.



Haugen, Robert A. and Nardin L. Baker (2012), "Low Risk Stocks Outperform within All Observable Markets of the World," https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2055431

The graph shows that the lowest risk portfolios have higher returns and lower risk, resulting in substantially higher Sharpe ratios (risk-adjusted returns). Similar results hold when the data is split into halves and quintiles (fifths).

WHY WOULD I INVEST IN LOW VOLATILITY STRATEGIES?

The 50%+ downturn in the broad U.S. equity market (represented by the S&P 500) which occurred in the aftermath of the 2008 financial crisis highlights the potential downside of market volatility. Low volatility stocks tend to have lower down capture ratios: when the market declines they tend to decline less. However, these strategies also tend to have lower up capture ratios: when the market advances, they tend to advance less. Ultimately though, because of the cumulative effects of lower declines in value, low volatility assets can achieve favorable investment performance over medium-to-long investment horizons (i.e., winning by not losing). Low Volatility strategies are ideal for those investors who are comfortable with missing out on sharply-advancing markets in exchange for losing less during market downturns. These investors may expect to achieve market-like performance at a lower level of overall risk.

As always, we welcome your questions/comments and are available at your convenience to discuss the Portfolios.

Thank you for investing with us!

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