Less is More

Michael E. Jones, Chief Investment Strategist

www.HighProbabilityAdvisors.com

March 2018

Risk and Return: these two related elements of investment assets are the perennial focus of portfolio management efforts. Through observation and academic research, we know that risk and return are broadly linked. However, the relationship between the two is not simply linear. In fact, historically, stocks that have less risk than the market also beat the index returns over time. The utilization of factor-based investing allows us to manage the pattern of returns and the expression of risk to fit specific portfolio goals. Properly applied, **less risk can still bring more return to risk averse investors.**

There are two factors that can provide important risk management to portfolios- **Minimum Volatility** and **Quality**. The Minimum Volatility factor is simply a quantitative ranking of the historical relative price movement (standard deviation) of a stock versus the movement of other stocks. Those stocks with the lowest range of movement are considered "Minimum Volatility". The Minimum Volatility factor is often called "low beta". Beta is a statistical measure of the variability of a stock price relative to the market index. Research, across many timeframes, has shown that these stocks usually go down less than the market index during corrections and up less than the market during strong uptrends, but end up providing higher returns than the overall index over longer periods.[1] Recent research shows that the majority of the benefit is associated with eliminating the so-called "lottery stocks" from the portfolio, since those stocks on average generate higher risk and lower returns.[2] Once those stocks are removed, the rest of the premia from the "minimum volatility" factor seem to dissipate. That doesn't reduce the attractiveness of utilizing the factor, but it does guide our application.

Since Minimum Volatility only measures historical stock price movement, we should ask the question, "why do some stocks have lower price volatility?" In the answer, we find another factor called **"Quality"**. Companies with high profit margins, stable profit margins and low debt on their balance sheet are perceived as safer to own during economic recessions. On one hand, their stock prices go down less during downturns because there is less fear of significant distress and/or bankruptcy. On the other hand, due to the steadiness in operations, they show less improvement in earnings relative to more cyclical and leveraged companies during robust economic times, so their stock prices appreciate less in uptrends. As you can guess, there is considerable overlap between the companies most highly ranked in Minimum Volatility and Quality factors, but they are not identical.

By adding these factors to our portfolios, the pattern of returns has been altered in an interesting fashion. Our principal focus is reducing the portfolio's decline during corrections and bear markets while still participating in upward trending markets. A statistic called **"downside and upside capture"** measures the typical percentage change that a specific portfolio makes during broad market moves in either direction. If during market corrections of 10%, the specific portfolio declines only 7% on average, you have "downside capture" of 70%. If during market advances of 10%, the specific portfolio advances 8% on average, it has "upside capture" of 80%. This example is close to the typical historical movement observed in Minimum Volatility and Quality factor specific portfolios. Of course, these are averages over time and we should expect that each individual period of ups and downs will have somewhat different outcomes.

Since the stock market index has gone up over time, we might think that the benefit of lower downside capture would be offset by the reduced upside capture, resulting in little or no benefit to long term returns. However, market declines are quite frequent.

Bull Market Corrections
S&P 500 Since 1932

Bull Markets	Duration (years)	Number of Corrections >5%	Number of Corrections >10%
06/01/1932-07/18/1933	1.2	4	3
03/14/1935-03/06/1937	2.0	8	1
03/31/1938-11/09/1938	0.6	3	2
04/28/1942-05/29/1946	4.1	6	2
05/17/1947-06/15/1948	1.1	1	1
06/13/1949-08/02/1956	7.2	12	3
10/22/1957-12/12/1961	4.2	2	1
06/26/1962-02/09/1966	3.7	3	1
10/07/1966-11/29/1968	2.2	3	1
05/26/1970-01/11/1973	2.7	4	1
10/03/1974-11/28/1980	6.2	8	5
08/12/1982-08/25/1987	5.0	8	1
12/04/1987-07/16/1990	2.6	6	1
10/11/1990-03/24/2000	9.4	19	3
10/09/2002-10/09/2007	5.0	8	1
03/9/2009-08/03/17	8.4	14	3

Over the past 84 years of bull markets...
There have been 109 corrections of greater than 5% (one every 7.2 mos)
There have been 30 corrections of greater than 10% (one every 26.1 mos)

InvesTech Research

The S & P 500 suffered declines of 10% or more in 21 of the last 38 years, yet full year returns were positive in 29 of those years. The mathematics of percentage increase/decrease are this, if a portfolio declines 20%, it requires an increase of 25% to get back to the starting point. Lower downside capture gives Minimum Volatility and Quality portfolios a distinct advantage here. Given the frequency of market corrections, it is easy to understand how this math results in extra return over time.

FACTOR INDEX PERFORMANCE VS MSCI WORLD
ANNUALIZED EXCESS RETURNS (January 1976 to Present)
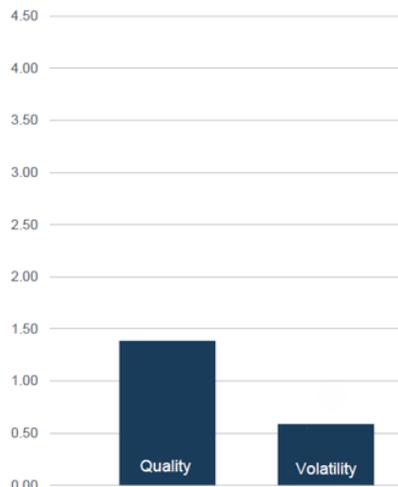
Source: Factor Indexes in Perspective, Insights from 40 Years of Data, MSCI Research Insight. To complete a 40-year simulation, the MSCI factors are represented by the following indexes: Low Volatility (MSCI Min Volatility), Quality (MSCI Quality)

The downside of utilizing the Minimum Volatility and Quality factors comes during prolonged bull markets with limited volatility. Since these factor portfolios fall meaningfully short of the market index returns during such periods, it may be difficult for investors to stay the course. For example, the largest Minimum Volatility ETF (USMV) gained 19.0% in 2017 while the S&P 500 rose 21.8%.   Naturally, most investors would be disappointed with the relative shortfall. As a result, we feel the pull to embrace the index or even chase enhanced returns at the wrong time - usually after bull markets are well underway and the probability of a correction or bear market has risen. An additional problem comes from the data that shows these two factors don't always reduce downside capture as would be suggested by the long-term data. During panic driven sell-offs, these stocks are sometimes sold out almost as much as the more fundamentally risky stocks. In short periods, the fundamentals don't matter- but they do over time. Thus, we need a constant reminder of the structure of these factor returns and the long-term benefit, so that we don't make disastrous moves away from dampened volatility just when we need it the most.

In summary, the Minimum Volatility and Quality factors provide important elements for risk management. High Probability Advisors research is aimed at finding the best ETFs for expression of these factors in our client portfolios. Many of our favored multi-factor ETFs incorporate these risk dampening factors in their selection and weighting methodologies. We also utilize different overall weights to these factors depending on each client's specific goals. Finally, we provide steady reminders and perspective to our clients regarding the pattern of returns that are inherent to these factors so that we can stay on track over the long term. No factor works exactly the same in varying environments, but we fully expect that the historical characteristics associated with Minimum Volatility and Quality factors will continue in the future. Less risk, steady returns and an enhanced ability to stay the course to long term success; for Minimum Volatility and Quality investors, "Less is More".

1.   Blitz and Van Vliet. (2007) "The Volatility Effect: Lower Risk without Lower Return" Journal of Portfolio Management 34(1)
2.   Turan G. Bali, Stephen J. Brown, Scott Murray and Yi Tang. (2017) "A Lottery-Demand-Based Explanation of the Beta Anomaly" Journal of Financial and Quantitative Analysis 52 (6)