The CPA Journal
Current Issue • About the CPAJ • Search the Archives • NYSSCPA.org

The Power of Low-Correlation Investing

By Marc D. Stern

In Brief

Mixing Asset Classes Over the Long Term

No one can predict market performance over any time period, short or long, but the study of correlations shows that, over time, different asset types have not performed in sync with the stock market. An investor who holds a portfolio diversified with low-correlating assets has the opportunity to benefit from returns with less risk. Balancing won't always produce a gain, but it will provide participation in the better-performing assets and mitigate the damage from poorer performers during any time period. This article shows that an investor's best protection during a bear market is to use a low-correlation investment strategy in a portfolio of globally balanced assets.

During the recent period of poor stock market performance, balanced portfolios dampened the effects of the market's losses and volatility—exactly as they were supposed to. 2002 marked the third consecutive down year for the U.S. stock market and the market's worst year since 1974. Both the value and growth domains were hit, as were non-U.S. stocks. In the face of this, a central investing tenet proved its value: Combining low-correlated asset types in an investment portfolio afforded investors competitive returns with less risk.

The Phenomenon of Low Correlation

In statistics, correlation measures the relationship between two entities. A correlation of 1.0 means that the two entities move in perfect tandem with each other. A correlation of zero means the relationship between them is totally random. A negative correlation, unusual in the investing world, means that they move in opposite directions. In investing, a low correlation means that different asset types have not performed in the same way: When returns on some asset types decline, returns on others decline less, or indeed gain. For investors, this diversification has obvious benefits. If poor performance in one investment can be offset by better (or even good) performance in another, extreme losses in an overall portfolio will be rarer than otherwise, and the capital will grow more in the long run.

For most investors, the classic combination of stocks and bonds is where low-correlation investing begins. Over time, stocks have earned more than bonds, but because bonds have not been highly correlated to the stock market, they have played a critical role in offsetting equity risk.

For example, consider six different portfolios of stocks and bonds over three time periods, 1991 to 2002 and the subperiods 1995 to 1999 and 2000 to 2002 (see Exhibit 1). From 1991 through 2002, an all-bond portfolio returned 8.2% and an all-stock portfolio returned 10.8%, strong returns for both. Although stocks outperformed bonds by 2.6 percentage-points, somewhat lower than the historical average, the spread in annualized risk from 3.7% for the all-bond portfolio to 15% for the all-stock portfolio was consistent with

history. (Risk is measured by volatility of returns; how much they deviate from one another over time.) However, this risk/return relationship masks the fluctuations investors experienced over the course of those dozen years.

Looking at the 1995 to 1999 and 2000 to 2002 periods shows how variable the risk/return of stocks and bonds can be in the short term. Over the 1995 to 1999 period, stocks returned 28.5% and bonds returned only 7.7%. Investors were handsomely rewarded for taking on more stock exposure, and many began to give up on bonds. With stock returns so strong, few investors worried about risk. However, in the three-year period immediately following, 2000 to 2002, investors experienced a total reversal. A heavy stock allocation would have punished returns, while bonds were clearly the way to weather the bear market.

The timing and magnitude of expected short-term shifts are impossible to predict, and changing asset allocation to capitalize on short-term shifts is never prudent. The best strategy to maximize long-term return potential and minimize risk is to hold a combination of low-correlating assets.

One might say the problem with combining stocks and bonds is that adding bonds to a stock portfolio will systematically lower its long-term return. But smoothing the variability in year-to-year returns over time by combining these low-correlated assets can reward the long-term investor. In the 1991 to 2002 period, for example, a portfolio of 60% stocks and 40% bonds provided returns competitive with 100% stocks, yet did so with much lower levels of risk.

The 60/40 combination is worth a deeper look. The return of this portfolio from 1991 to 2002 was 10%. Yet this same combination returned 20% in the roaring bull market of 1995 to 1999 and lost only 4.9% in the bear market of 2000 to 2002. Returns from the same portfolio varied during shorter time periods.

This is exactly why investors should seek diversification options beyond just stocks and bonds. Incorporating an even wider variety of low-correlated assets into a portfolio can further enhance the investor's chances of mitigating short-term swings.

Low Correlations Apply Across Many Asset Types

Low-correlation investing can draw on a richer universe of investing options than stocks and bonds. Exhibit 2 shows the broad range of correlations for a variety of assets with the S&P 500 over the past 20 years. For example, real estate investment trusts (REIT) have performed very differently, with a correlation of .45. Within the broad category of stocks, low correlations with the S&P 500 can be found in foreign stocks, from both the developed and emerging markets. Even within U.S. stocks, Bernstein Strategic Value's correlation to the market was different from Bernstein Strategic Growth's.

While correlations among the various assets have been fairly stable over long periods, they have shifted in the short term, and—just as with returns—the timing or direction of such shifts cannot be predicted, as Exhibit 3 demonstrates for the period 1991 through 2002 and three subperiods: 1991–94, 1995–99, and 2000–02.

Correlations with the S&P 500 for most of these assets for the 1991–2002 period lined up similarly to the 20-year levels. But in the subperiods, for many of the assets the relationships were far less predictable.

Bond correlations ranged from an unusually high .52 to –.33. During the highly correlated period, bonds returned 7.3% as the S&P returned 11.8%; they both moved in the same positive direction. But in the negative-correlation period, bond returns were a positive 10.1% versus an S&P loss of 14.5%. REIT correlations fluctuated dramatically, from a close-to-random .19 up to .44. Bernstein's Tax-Managed International Value Fund showed the lowest correlation in 1991 to 1994, yet was the second most highly correlated asset in 2000 to 2002. These shifts in correlations confirm the difficulty of trying to predict how various assets will move over short periods of time.

Another View on Diversification

Growth and value stocks bear further study because they shed light on another way to evaluate an asset's diversification benefits. Again, the goal is to blend two assets that perform differently over time—that is, which are weakly correlated with each other—in order to achieve competitive returns with less risk. In the case of U.S. equities, growth and value—two different types of stocks—represent a very powerful opportunity to take advantage of low correlation.

The objective of a growth or value portfolio manager is to achieve a return premium versus the appropriate benchmark. Doing so requires that the portfolio be different from the benchmark. The security selection and the weighting given to each security are the sources of the portfolio's outperformance opportunity.

Therefore, a key aspect of generating a premium is adhering to strict standards of style in building the portfolio. If that standard is met, the potential for adding a return premium will be increased.

Two successful portfolios—one growth, one value—are likely to out- perform a broad market benchmark at different times. Combining these negatively correlated premiums can enhance long-term performance and consistency. Negative correlations are rare in the capital markets, and the offsetting performance they signal indicates a powerful opportunity to outperform other portfolios with less risk over time. Holding both growth and value over time creates such an opportunity.

The Long View

No one can predict market performance over any time period, short or long, but the study of correlations shows that, over time, different asset types have not performed in line with the stock market. The bear market that began in March 2000 tested the principle of balancing portfolios with low-correlated assets. Investors that held a portfolio diversified with low-correlating assets had the opportunity to benefit from returns with less risk. If key assets within that portfolio have generated premium returns over time versus the respective benchmarks, the overall portfolio will have the potential to outperform an unbalanced portfolio.

Marc D. Stern *is chairman of the Private-Client Investment Policy Group at Bernstein Investment Research and Management. This article has been adapted with permission from the "Bernstein Journal" (www.bernstein.com).*
