

Insights & Outlook



Modern Portfolio Theory Statistics

ADVISOR CORNER



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Fall is here and, while the heat of the summer seems to be winding down, the markets don't appear to be cooling off. Recent news of the Federal Reserve's decision to not taper their asset purchasing program (read Quantitative Easing 3) has been met with initial exuberance by the markets. We have a more muted stance to this news, however, as the Fed's decision reflects a potential weakness in the economy.

That being said, we are still optimistic for the equities markets as a whole. Even with QE3 still in play, we feel that US equities will outperform and that the Emerging Markets are decently undervalued. The Fed decision to keep their easy-money policies unchanged seems to have decreased the value of the dollar—as seen in the recent surge in gold prices. This bodes well for our Emerging Markets holdings as a falling dollar will make that asset class more attractive.

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The CCM Insights & Outlook Newsletter is available 8 times a year to our clients and friends. Please contact CCM Insights & Outlook Editor Jess DeGabriele, Investment Advisor Representative, with your questions, comments, and suggestions. Jess can be reached at jdegabriele@cardinalcapitalllc.com or (765) 289-8888.

After the 2007-2009 financial crisis, investors have become more attuned to the risk characteristics of investments. As volatility in the market continues, investors are paying more attention to the relationship between the potential for reward and the likelihood of experiencing losses. Modern Portfolio Theory (MPT) is used by many investment professionals to help investors make appropriate investing and asset allocation decisions. MPT is rooted in the assertion that there is no free lunch, as investors can only obtain higher returns if they are willing to take on more risk. Knowledge of MPT statistics such as alpha, beta, and R-squared are useful to understanding and quantifying this risk/reward landscape.

Beta: Although alpha precedes beta in the Greek alphabet, beta is a necessary precursor to understanding alpha. Beta can generally be defined as the risk factor of a portfolio to the market, which is usually achieved through asset allocation. A beta number of 1.00 implies that the portfolio will perform exactly how the market performs. A beta number greater than 1.00 implies that the portfolio will perform better than the market when the market is going up, and worse than the market when the market is going down. Conversely, a beta number lower than 1.00 means that the portfolio is expected to perform worse than the market when the market is going up, and better than the market when the market is going down.

Alpha: Alpha, a measure of the excess return generated by a portfolio that goes beyond the benchmark, is the residual (or skill/luck-based) component of active management, allowing financial advisors to display their value. The benchmark is usually a market index that the portfolio can be compared against to assess its performance relative to the market. If alpha is positive, it means that the portfolio returned more than its expected return from the market, whereas a negative alpha indicates that the portfolio returned less. Should investors be impressed if a financial advisor is generating positive alpha for their retirement portfolio? In general, yes, being able to generate alpha is touted as the holy grail of investing; it's an indication that your financial advisor has been able to generate an above-average return relative to the risk that he or she is taking on. However, before investors put too much stock in the statistic, it's important to know what these statistics mean, and why they are important. Investors should be cognizant of the fact that a higher beta does not necessarily equate to a higher alpha; a portfolio with a high beta may well sport a negative alpha. This is due to the fact that the greater the risk the portfolio assumes, the higher the hurdle the portfolio must overcome in order to outperform the market.

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BURST BUBBLES

In the financial world, a "bubble" designates an investment trading in high volume at prices that are considerably higher than its underlying value. Price and value tend to realign eventually through a sudden price drop, known as a crash or a bubble burst.

Two of the scariest bubbles that burst during the last decade were the tech (or dot-com) bubble in 2000 and the housing bubble in 2007.



Know Your Risks

Risk is the chance that you won't be able to meet your financial goals or that you'll have to recalibrate your goals because your investment comes up short. Investors face many forms of risk depending on the kinds of investments they choose.

Market, industry, and company risk: General market fluctuations can affect securities trading in that market. Stocks tend to fluctuate more than other asset classes, and may pose more risk over short periods of time. Investors looking to time the market run the risk of jumping into the market during the worst times, and out of the market during the best times. Security values can also decline from negative developments within an industry or company.

Credit and interest-rate risk: Credit risk is the possibility of a bond issuer not being able to make timely payments of principal and interest. The value of a bond may also decrease due to financial difficulties or the declining creditworthiness of the issuer. Interest-rate risk relates to how bonds tend to rise in value when interest rates fall, and to fall in value when interest

rates rise. Typically, bonds with longer maturity exhibit greater price volatility.

Inflation risk: Inflation is a rise in the general level of prices for goods and services. If investments do not keep up with inflation, an investor's money will purchase less in the future than it did in the past.

Liquidity risk: Some investments may not be widely held by the public and may be difficult to sell if prices drop dramatically.

Currency risk: Returns achieved by local investors are often different from returns achieved by U.S. investors because of foreign exchange rates, even though both are investing in the same security.

ADVISOR CORNER

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In anticipation of Fed action—or inaction—we made some adjustments to our portfolios by increasing our domestic large-cap equities position and slightly lowering our fixed income allocation as a whole. We are confident that this new mix is where we want to be for the foreseeable future to take advantage of this risk-on environment—while maintaining our downside protection through diligent fund selection.

In other Cardinal Capital news, we are pleased to announce the launch of our

new website! This endeavor has been a few months in the making, and we are quite proud of the results.

Users of the old website will notice a few key differences to links that they often use. For those who use TD Ameritrade’s online view for their accounts, they can link to the login page from the top right of any page on our new website, just by clicking the link titled, “Account Access.”

Users of our Client Web Portal service can now link to their Client Web Portal by clicking the link found on the top right

titled, “Client Web Portal.” Don’t hesitate to contact us if you have any questions.

Please take a moment to peruse the site (www.cardinalcapitalllc.com). Of particular interest might be the CCM Publications section, found under the main News link. Here we will post numerous CCM publications, such as this newsletter. The other links in the News section will also be updated regularly and should prove an interesting read.

As always, thank you for your continued confidence.

—*Jess DeGabriele*

STATISTICS

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R-squared: The R-squared value is a number that measures the strength of a relationship (correlation), demonstrating how much a portfolio’s performance can be explained by the performance of its benchmark. The higher the R-squared value, the more closely the portfolio’s performance can be explained by the index it tracks. The lower the R-squared

value, the more likely the portfolio doesn’t behave much like its index. R-squared values can range from zero, meaning there’s no degree of performance correlation between a market benchmark and a given portfolio, to 100, meaning that a portfolio is highly correlated with the index. More importantly, a higher R-squared number validates the relevance of the alpha and beta numbers.

Alpha and beta are the heart of traditional performance (risk and return) analysis, although they do come with their own caveats and limitations. Investors trying to understand or interpret these MPT statistics are best advised to seek professional investment advice to ensure they are allocating risk appropriately. A better understanding of these statistics can go a long way in making better financial planning decisions.

A Quick Look at Mid-Cap Stocks

Investors often hear about large- and small-cap stocks, but what about mid-caps? A quick look at large-, mid-, and small-cap stock performance over various time periods shows that investors may want to consider U.S. mid-cap stocks for their portfolio.

Mid-cap stocks offered the highest compound annual returns in four out of the six time periods analyzed, and were relatively close (in terms of return) with small stocks in two other time periods. In terms of risk, the data shows that mid-cap stocks had a 30-year annualized risk of 17.8%, which was lower than the 20.9% risk of small stocks and only slightly higher than the 17.2% risk of large stocks.

Annualized Stock Performance as of December 2012



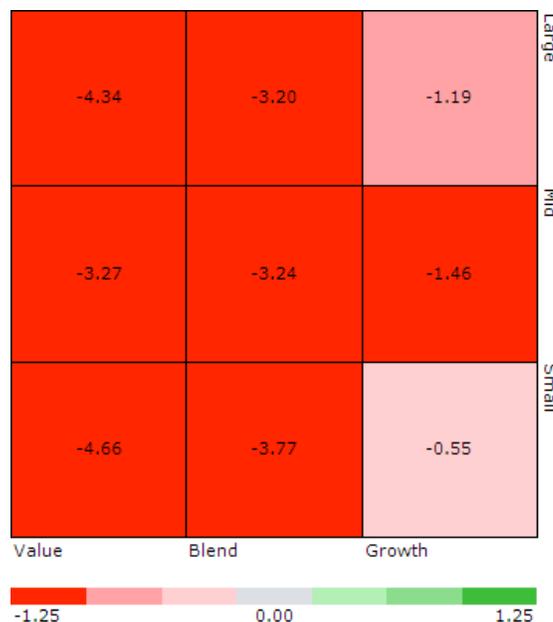
Past performance is no guarantee of future results. This is for illustrative purposes only and not indicative of any investment. An investment cannot be made directly in an index. Diversification does not eliminate the risk of experiencing investment losses. U.S. large stocks are represented by the Standard and Poor’s 500®, which is an unmanaged group of securities and considered to be representative of the U.S. stock market in general, U.S. mid-cap stocks by the S&P MidCap 400®, and U.S. small stocks by the Ibbotson® Small Company Stock Index. Returns and principal invested in stocks are not guaranteed. Furthermore, small stocks are more volatile than large stocks and are subject to significant price fluctuations, business risks, and are thinly traded. Risk and return are measured by standard deviation and compound annual return, respectively. Standard deviation measures the fluctuation of returns around the arithmetic average return of the investment. The higher the standard deviation, the greater the variability (and thus risk) of the investment returns.



Monthly Market Barometer

1 Month, ending August 31, 2013. The U.S. Market returned -2.87% (YTD 16.73%).

The Market Barometer provides a visualization of the performance of various stock market indexes. The color scale (red for losses and green for gains) allows you to assess which areas of the market performed strongly and which areas showed weakness for the time period analyzed. The nine-square grid represents stocks classified by size (vertical axis) and style (horizontal axis). There are three investment styles for each size category: small, mid and large. Two of the three style categories are “value” and “growth” while the central column represents the core style (neither value nor growth characteristics dominate). Large-caps account for the top 70% of the capitalization; mid-caps represent the next 20%; and small-caps represent the balance.



CALENDAR:

OCTOBER

No closures.

NOVEMBER

Our office will be closed November 28-29th, in observance of Thanksgiving.

DECEMBER

Our office will be closed December 24-25th, in observance of Christmas.

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