Mean Reversion or Paradigm Shift?

PARADIGM SHIFT-A TIME WHEN THE USUAL AND ACCEPTED WAY OF DOING OR THINKING ABOUT SOMETHING CHANGES COMPLETELY. CAMBRIDGE DICTIONARY

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"Investing is Simple, But Not Easy"

-Warren Buffett

I agree that investing is not easy, and on most days, I don't find it that simple either. What is so difficult about investing? From my vantage point, the greatest challenge is trying to figure out whether a financial data point that seems to be an outlier is about to return to normal, or alternatively, whether there has been a paradigm shift that renders the historical data irrelevant. Most things in life, including the financial markets, actually regress to the mean so reversion should probably be the default assumption, and we should set a very high bar for concluding that there has been a paradigm shift. But, paradigm shifts do occur which means that we should always be challenging our assumptions and developing a "Plan B."

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Asset Allocation

In simple terms, an investor can take one or a combination of several different approaches to asset allocation. First, one can structure a portfolio based on very long term risk and return forecasts. Once the portfolio is created, the actual mix should be periodically rebalanced, but otherwise, the long range targets remain in place. Second, the asset allocation process can be repeated periodically (every 3-5 years?) based on intermediate term risk and return forecasts. In this case, the targets are adjusted and the actual mix updated until the next asset allocation review. In the interim, the portfolio is periodically rebalanced. Finally, some investors choose to engage in tactical asset allocation which involves shifting the mix within approved ranges based on the perception of near term risk or opportunity. And, tactical asset allocation can be combined with either of the first two approaches.

The key point is that both intermediate and tactical asset allocation require the investor to evaluate metrics to determine intermediate term return expectations and/or identify tactical opportunities. The need to analyze data also holds for stock selection, bond portfolio management, and many other components of investment management. Relevant metrics might include recent returns, economic forecasts, interest rate expectations, valuation data, momentum indicators, the political outlook, and so on. And, at any given time, some of these indicators are likely to differ, and occasionally materially, from longer term averages. Therein lies the challenge-does the discrepancy represent a paradigm shift or a temporary blip that will likely be corrected over some reasonable time frame? Should we change our intermediate or long range forecasts or does the current divergence represent a red herring? Will regression to the mean create a tactical opportunity or have relationships permanently changed?

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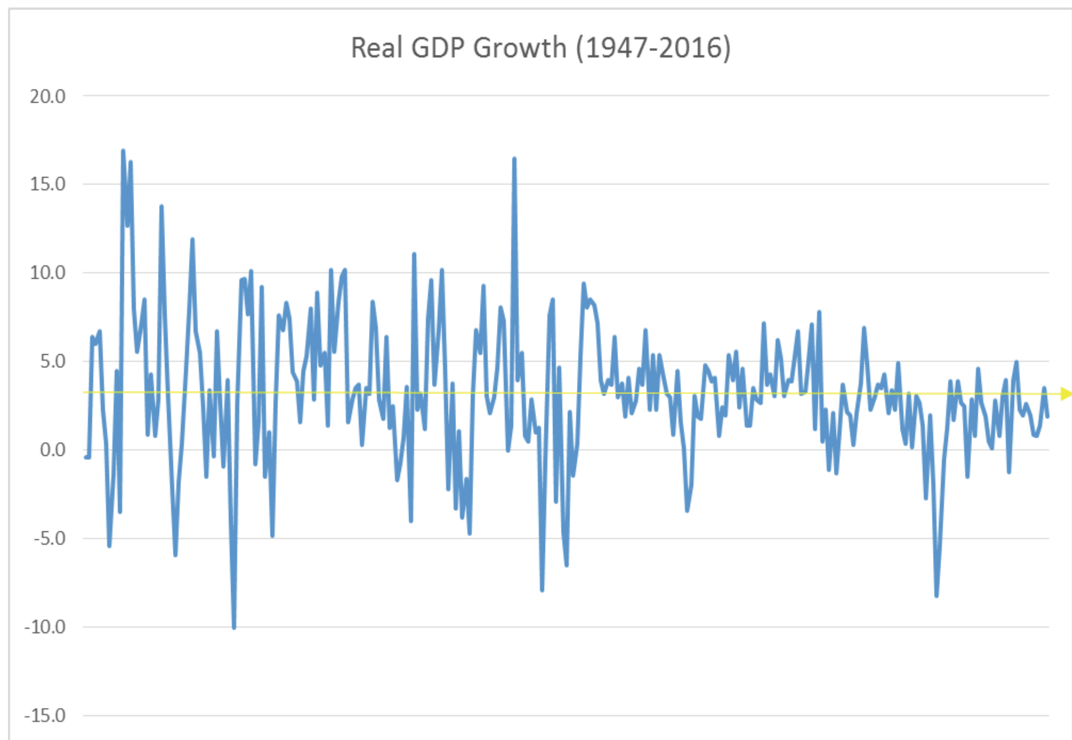
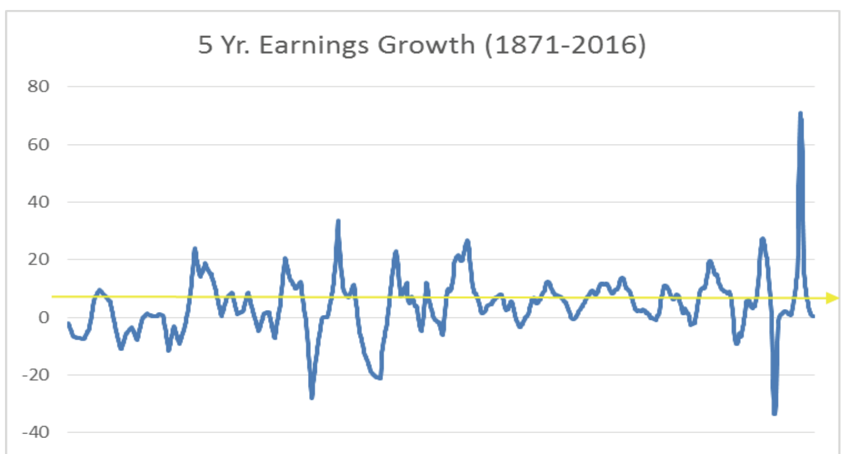
Examples of Mean Reversion

The best way to depict mean reversion is graphically so let's look at charts of some key financial metrics.



This chart depicts quarterly changes in the economy as measured by Real Gross Domestic Product or GDP. As you will note, the growth rate fluctuates around its long term average which is represented by the yellow line, and periods of above or below average growth are generally followed by the opposite condition.

Wall Street expends a tremendous amount of time and energy trying to predict the growth rate in corporate earnings. This chart shows five year trailing earnings growth for the S&P 500 from 1871-2016:



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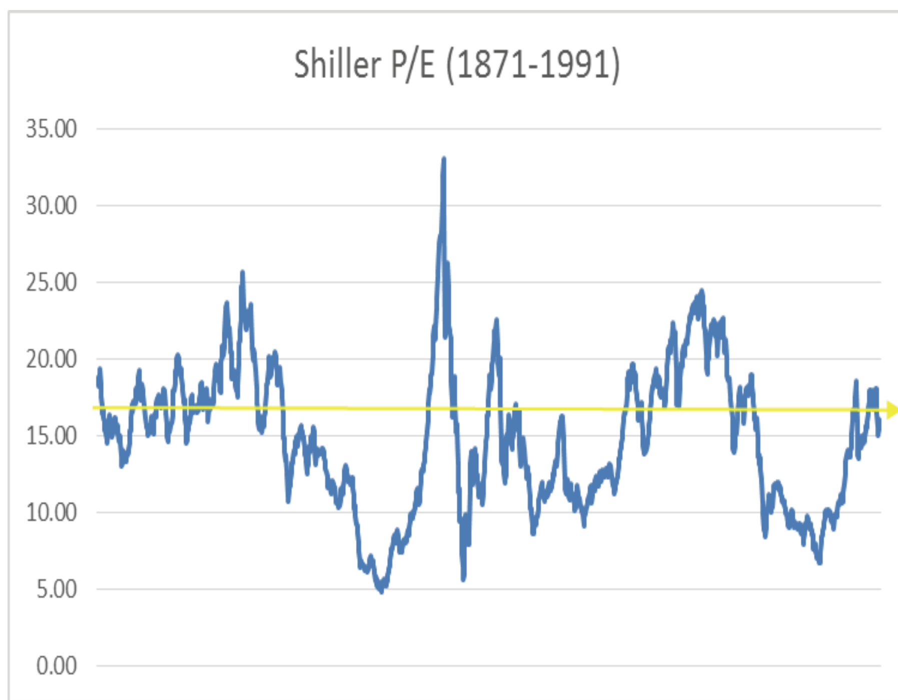
Once again, the average is depicted by the yellow line and the mean reversion tendency is obvious although the amplitude varies over time.

Another commonly used investment metric is the P/E ratio which measures the valuation of the stock market. This chart covers the period 1881-1991:



We will look at data since 1991 shortly. But, during the period covered in this chart, you will note that P/E's ultimately revert although they can stay significantly above or below the long term average for extended periods.

I won't overwhelm you with more charts but several other areas that demonstrate mean reversion are the performance of US versus Non-US stocks, the ebb and flow of investment styles such as growth and value, and the performance of investment managers.

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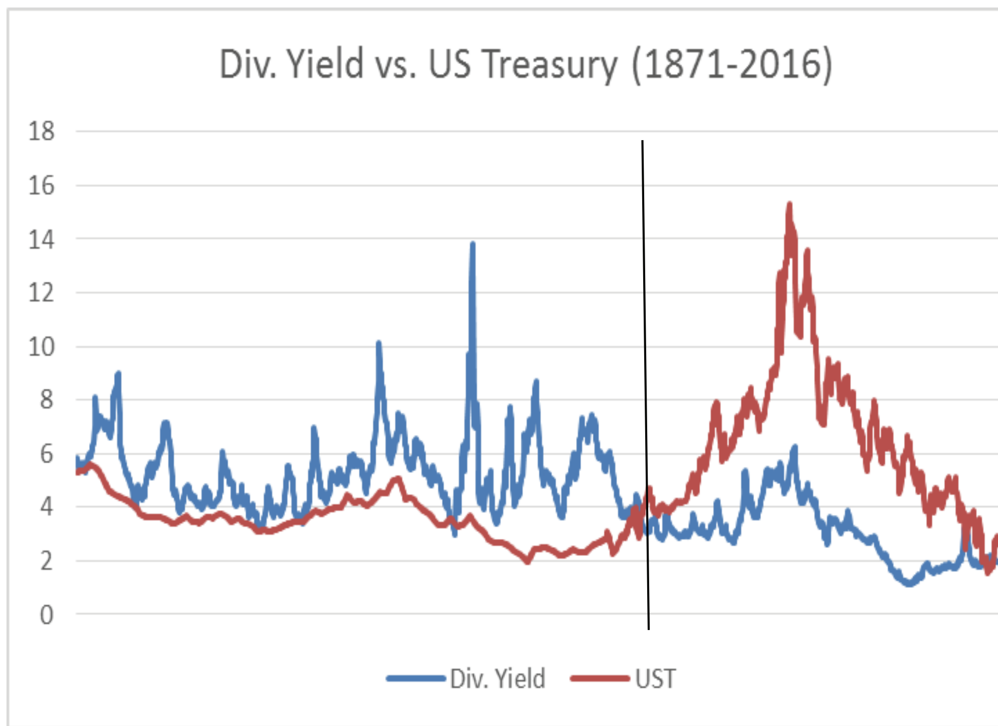
Paradigm Shifts

But, as previously stated, paradigm shifts do occur, so let's take a look at a couple of examples.



This chart compares the dividend yield on the S&P 500 stock index with the yield on the 10 year US Treasury Bond for the period 1871-2016. As indicated, the dividend yield exceeded interest rates from 1871-1958 based on the belief that investors in equities deserve more current income to compensate them for the risk in stocks. Since then, interest rates have exceeded dividend yields although the current spread is quite small. The flip flop in relative yields in 1958 represented a reversal of ninety years of financial thinking; now that's a paradigm shift! What is the "right" relationship? Give us a call if you have the answer!

Another example involves the correlation between stocks and bonds which is measured by something called the correlation coefficient. A reading of 1 would suggest that stocks and bonds move perfectly in tandem, a correlation of 0 suggests that there is no relationship between the two, and a coefficient of -1 suggests that they move in opposite directions.

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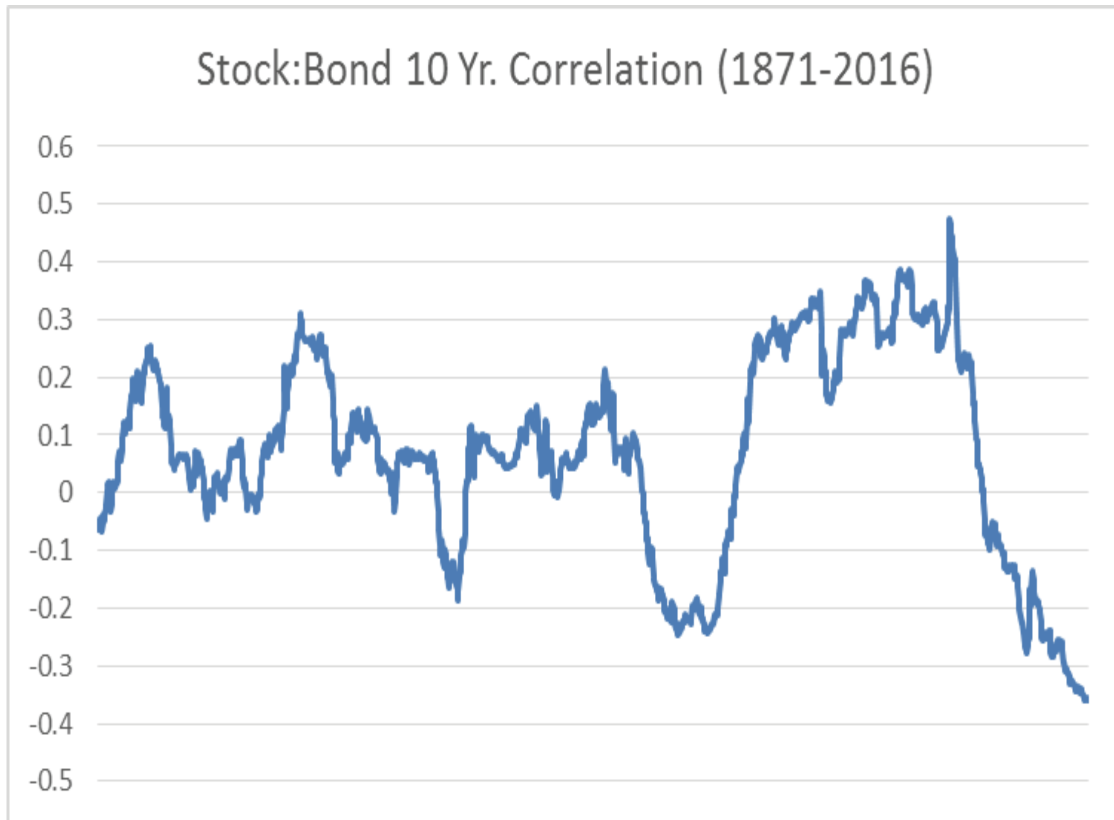

It is fascinating that periods of as long as twenty five years of relative stability in the relationship have been followed by a change in both the magnitude and sign of the coefficient. It isn't at all clear whether stocks and bonds should move in the same or opposite direction, but the answer will have a major impact on the asset allocation decision. If they move in opposite directions as they have done recently, then bonds represent a potential diversifier or hedge for a stock portfolio.

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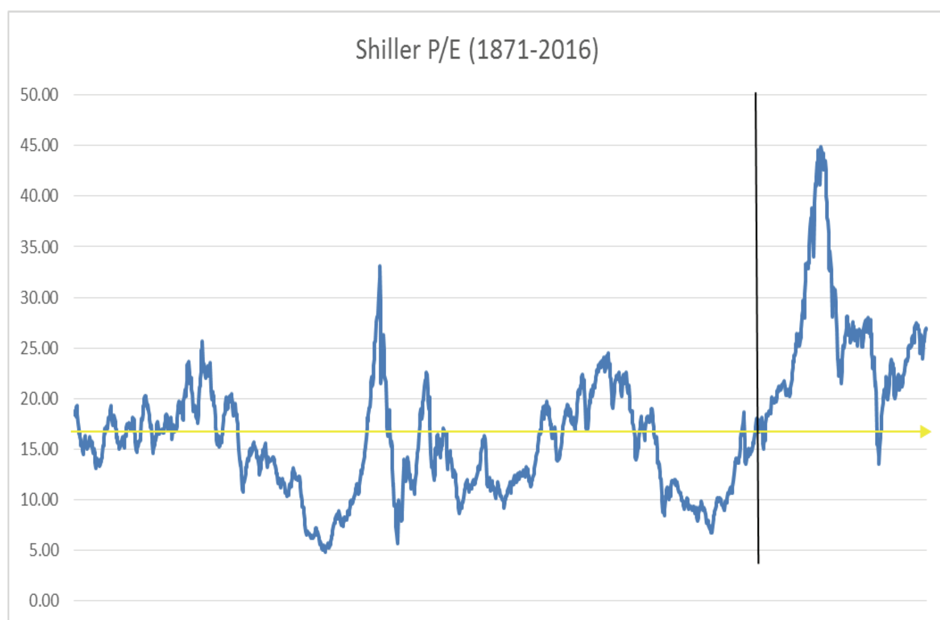
Now, for the Hard Part!

In order that this not be an academic exercise, we will look at several indicators that currently diverge considerably from long term averages. We have our views as to whether each of these represents a paradigm shift or is likely to regress toward the mean. Hopefully, you will understand the difficulty in making the call. By the way, all of them have important implications for investment strategy, asset allocation, and future investment returns.



A previous chart depicted the P/E from 1881-1991 and there was a clear tendency for it to revert to the mean, albeit over varying time frames. Well, this chart updates the data through 2016, and other than for a brief moment during the global financial crisis, the P/E has been considerably above the long term average since 1990. So, is it likely to revert to the mean which would suggest poor future returns thereby calling for lower equity exposure than might otherwise be the case? Or, has the world changed such that stocks permanently sell at higher prices? For example, are stocks less risky than they used to be, are other potential investments not particularly attractive making stocks all the more valuable, are central banks' quantitative easing programs and corporate stock buybacks creating a floor under stock prices, or are there other factors that are changing the dynamic? Obviously, these are tough calls! Let's move on to interest rates.

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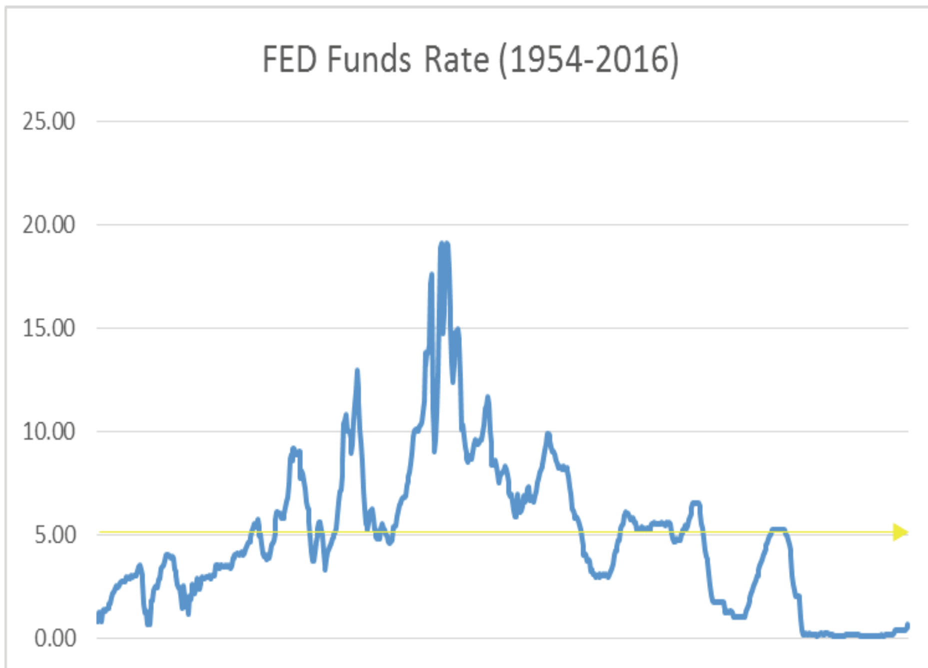
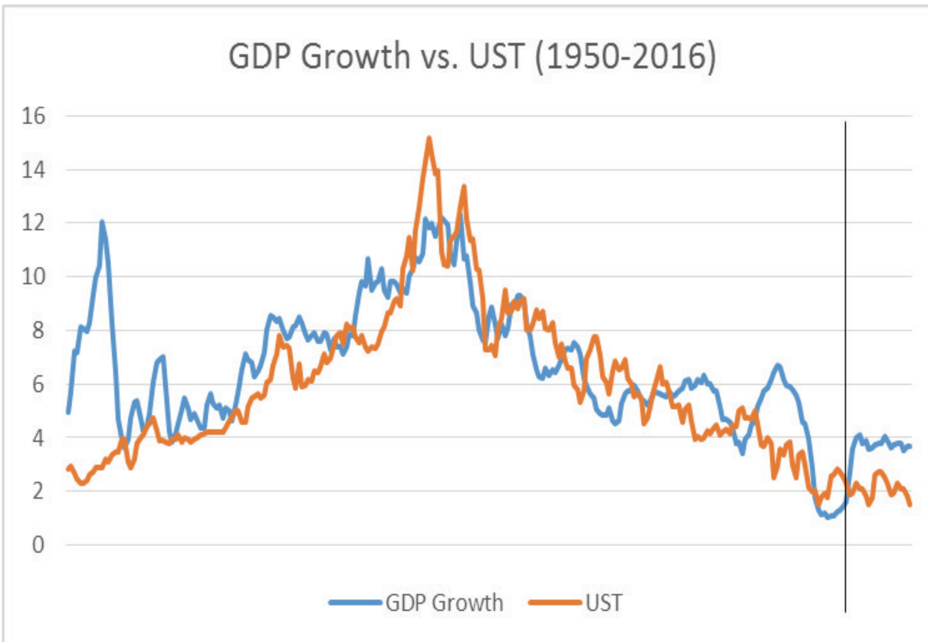


This chart illustrates short term interest rates as measured by the Federal Funds Rate, and you should note that it has averaged 5% since 1954. But, since 2008, it has been effectively zero. The Federal Reserve has announced its intention to raise the rate several times during 2017, but should we expect it to return to mid-single digits or are we at a permanently lower level? The answer has major implications for investing, the U.S. Government Budget, currencies, and so on. How about longer term interest rates?



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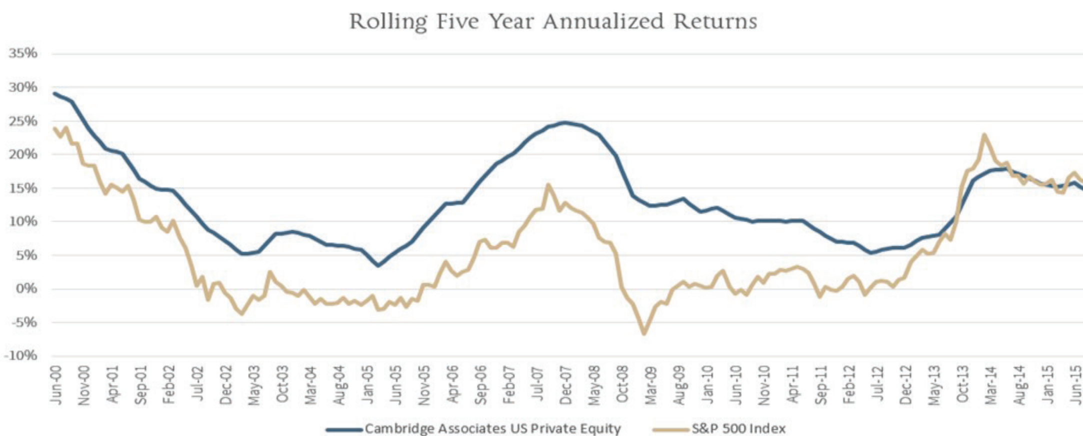
This chart covers the period 1953-2016. For most of that period, the yield on the 10 Year U.S Treasury closely tracked the rate of growth in nominal GDP. But, something changed, at least temporarily, in 2011. Since then, the two lines have diverged with the Treasury currently yielding 2.5% as compared to the 4% rate implied by economic growth. Once again, should we expect rising rates and therefore reduce bond positions, or are rates permanently lower?

Historically, many investors boosted their returns by investing in real estate, private equity, and other "non-traditional or alternative assets" in order to capture what is known as the illiquidity premium which is the extra return investors demand for giving up liquidity.

Private Equity vs. S&P 500



This chart depicts five year rolling returns for private equity versus the S&P 500 and it is clear that private equity provided a premium return for most of the period. But recently, there has been no payoff for accepting the complexity and illiquidity of this asset class and a chart of hedge funds would tell an even less favorable story. So, should we expect these asset classes to bounce back strongly or has something fundamentally changed that should cause us to rethink our allocations to these categories?

There are other similar conundrums in place today. Volatility is very low by historical standards-is the world really a safer place? US stocks have outperformed foreign stocks by 10% per annum over the past seven years. That is an extraordinary spread which begs the question: should we expect Non-US stocks to dramatically outperform or has there been a permanent change in relative valuation? All of these represent thorny questions on which many knowledgeable and informed investors disagree. While we wrestle with them every day, we obviously don't have all (or maybe any!) of the answers.

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What Do We Make of All of This?

You have probably heard that the five most dangerous words in investing are "it is different this time." In fact, it generally isn't different because powerful economic forces cause things to return to normal when they get out of kilter. Therefore, we should assume that mean reversion is the order of the day and set an extremely high bar for concluding that there has been a paradigm shift. Moreover, we should be sensitive to timing because the pressure of the moment frequently leads to a decision that there has been a paradigm shift at the wrong time-just as the reversion process is beginning.

But, since paradigm shifts do occasionally occur, at Diversified Trust, we try not to be rigid in our thinking, to always challenge our assumptions, to consider the impact of alternative points of view, and to always have a "Plan B" portfolio strategy under consideration. And, if we do believe that there might be a permanent change and alter our investment strategy, we won't "bet the ranch" but will make measured changes and remain flexible. As Buffett said, "it isn't easy." ■

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