

## THE BROYHILL LETTER

*"The treatment of market risk and credit risk has become increasingly sophisticated. Banking organizations of all sizes have made substantial strides over the past two decades in their ability to measure and manage risks."*

— Ben Bernanke, 2006

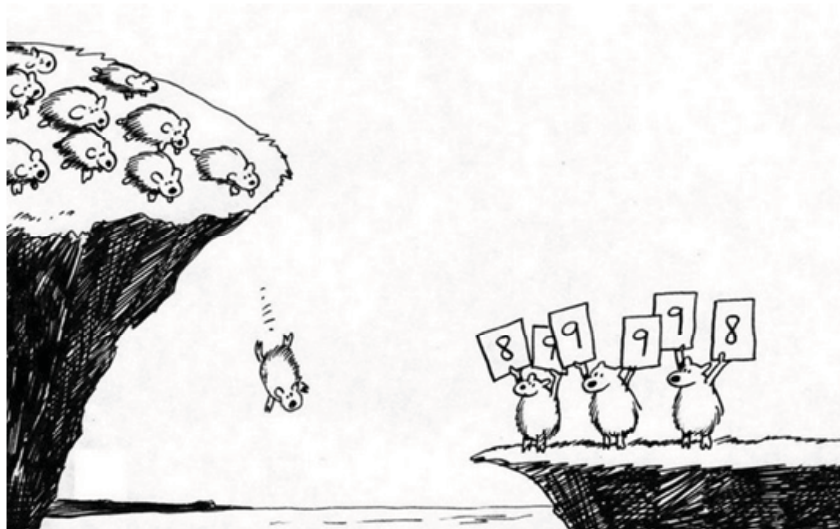
### Executive Summary

I used to think financial markets were efficient. I had a blind faith in the “economic science” taught by finance professors at our nation’s top business schools, studied by CFA Charterholders across the globe and practiced by gentleman bankers at Morgan Guaranty Trust. I was wrong.

Global capital markets have suffered incredible damage in the name of diversification since the birth of Modern Portfolio Theory in the late 1960s. The burning desire to quantify all observable evidence, to measure every statistic ever so precisely, and to reduce infinite variables down to a single number bedevils our industry by creating a false sense of security. Much like risk, diversification can’t be neatly summed up into a single number. And despite our continued claims that investment management is more of an art than a science, physics envy is widespread in finance.

### The Deficient Market Hypothesis

The Efficient Market Hypothesis was developed by Professor Eugene Fama at the University of Chicago Booth School of Business in the early 1960s. The EMH asserts that financial markets are “informationally efficient,” or that prices accurately reflect all known information. While certainly an eloquent and harmless theory in concept, the risk arises when theory escapes academic text and practitioners accept it as fact. Once again, we find ourselves agreeing with Yale’s Robert Shiller who claims the Efficient Market Hypothesis is one of the most remarkable errors in the history of economic thought!



For decades, our best and brightest have come to rely upon models based on foolish assumptions. Yet, most universities still teach the Capital Asset Pricing Model (CAPM), which incorrectly assumes that 1) markets are efficient; 2) investors are rational; and 3) returns are normally distributed. And we wonder why banks have made such a mess of things! In this magical world of CAPM, risk can neatly be boiled down to a single factor – beta. And herein lies the problem. Beta is a useful measure of past price fluctuations (i.e. volatility), but risk should never be confused with volatility! Risk, in our humble

opinion, is simply the possibility of a permanent loss of capital. Our related obsession with performance measurement and benchmarking has given rise to the biggest hazard in our industry – career risk and the human nature to conform. For a benchmarked investor, it is better for reputation to fail conventionally than to succeed unconventionally. This leads our favorite investment pets to engage in Keynes’ beauty contest.

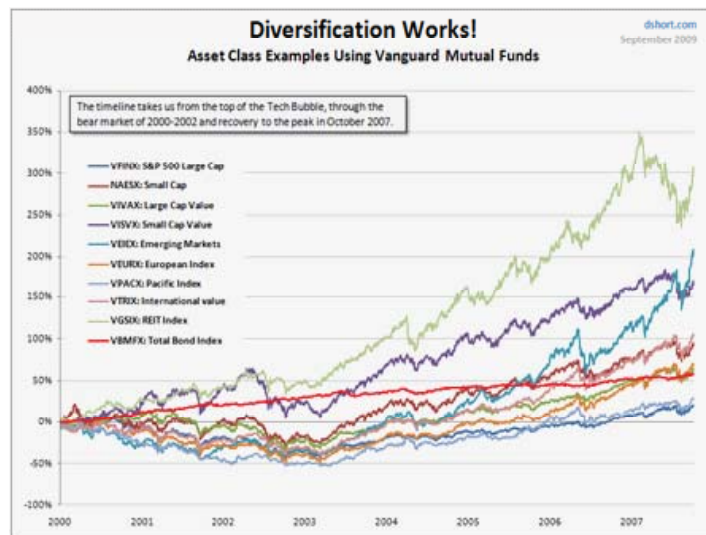
*“Professional investment may be likened to those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preference of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those which he thinks likeliest to catch the fancy of the other competitors, all of whom are looking at the problem from the same point of view. It is not a case of choosing those which, to the best of one’s judgment, are really prettiest, nor even those which average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practice the fourth, fifth and higher degrees.”*

## The Death of Diversification

Diversification often fails when it is needed most because short-term correlations between assets are high during extreme events. Similarly, risk analysis is most likely to fail when risk reduction is needed most. An investor who tries to use a standard covariance matrix and normal distribution to incorporate extreme events into the portfolio construction process is almost guaranteed to get into trouble. We appreciate that the word “guarantee” will likely set off numerous compliance-related red flags in our work, but in this case, history is on our side.

Financial crises have become almost commonplace in the past decade: Asia (1997), Russia (1998) and US (2008). In 2008, we observed a classic version of the “correlations go to one trade.” It is common in bear markets that equity correlations increase as investors rush to the exit door to raise cash and liquidate positions at any price. As the old saying goes, the only thing that goes up in a bear market is correlation. Yet despite such obvious flaws, the modern approach to risk management, which assumes that historic correlations are static across asset classes, is hailed as representing a major breakthrough. Witness our opening quote from Bernanke in 2006.

The benefits of diversification are undoubtedly clear in the long run. A well-constructed, diversified portfolio of financial assets should reduce overall risk without reducing expected returns; or if desired, increase expected returns while holding risk constant. But as we previously argued, risk is not a simple concept. Contrary to popular belief,

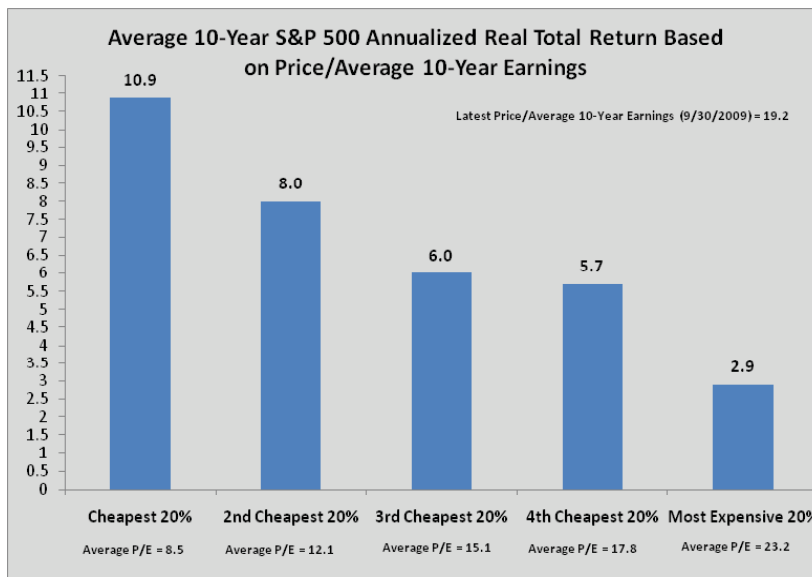


greater risk does not promise greater returns. In fact, risk alone does not create incremental return; only price in relation to value can accomplish this. While diversification may reduce most risks, it cannot eliminate the single largest source of risk for long term investors – the risk of paying too much for an asset. Almost all other risks recede over time. The risk of overpaying does not, as unfortunate investors in Nikkei 1990 or Nasdaq 2000 understand all too well.

The traditional approach to asset allocation relies on looking back in history to calculate long term average returns. There is a huge reliance on historic volatilities and correlations. While this approach is fine in theory, in practice it leads to disaster, as the quality of output is completely dependent upon the inputs (garbage in, garbage out) and asset class correlations are inherently unstable. But while the correlation between asset classes is unstable, the relationship of asset classes to economic environments is consistent over time. Fundamentally, we believe asset prices represent expectations of future conditions, largely driven by growth and inflation. As such, investors may benefit by allocating risk based on this understanding, and shifting risk across these environments.

### The *Really* Efficient Market Hypothesis or *Very* Modern Portfolio Theory

It's been said that no crisis should go to waste, and experience shows that every bear market leads to important changes in investor behavior. Now that the credit bubble has burst, we believe investors need to reassess the virtues of diversification. They would be well served to look beyond the traditional models of portfolio construction which provided a false sense of confidence at exactly the wrong time. To better protect capital against large draw-downs and increase long-term returns,



Source: Ned Davis Research, Inc.

investors should only increase risk exposure when justified by expected returns. The long term average real return from the stock market is about 6.5%. But average rarely happens! Investors that routinely construct “diversified” portfolios on the basis of “average” long-term returns have overlooked one critical point – starting valuations matter!! In fact, valuation remains the single largest determinant of expected long term returns. The rules change with the opportunity set.

Many investors look down on dynamic asset allocation as mere “market timing.” Getting the timing right on asset class moves is extremely difficult in any given year. But over ten years, the odds are clearly in our favor. Coming up with reasonable estimates of fair value for various asset classes is certainly achievable; an investor who refuses to do so is making the dangerous assumption that expected asset class returns are not dependent on starting valuations. We have a view at Broyhill that you can't be so long-term that you don't pay attention to current events. Or as Keynes morbidly reminds us, in the long run, we are all dead. Rather than waiting for “average” (as Jeremy Siegel might suggest), we think asset allocation begs for a tactical component that is very hard for many investors to deal with because they aren't structured to think about the big picture. Thinking “macro” doesn't mean being an eternal pessimist; it just means making sure you are getting paid for taking risk.

## Bottom Line

Investors have naively relied upon diversification to reduce overall portfolio risk. But diversification for the sake of diversification is not sensible. The risk of broad market declines cannot be reduced through diversification. A more effective way to control portfolio risk is to monitor the risk-reward trade-offs of various asset classes and shift portfolio exposures accordingly. Once again, the biggest risk inherent in such a portfolio construction process is that it is guaranteed to result in a portfolio that looks different than the majority of institutions which benchmark their own performance against each other, forcing everyone to take too much risk. From time to time, such contrarian thinking is a good way to get yourself fired (but at the same time, should help you avoid that cliff on page one). As First Eagle's Jean Marie Eviliard has said, "We would rather lose half of our clients, than lose half of our client's money."

Will we ever be successful at finally putting the Efficient Market Hypothesis and its ugly siblings to rest? We are hopeful, but the extreme brevity of financial memory is not on our side. As GMO's Jeremy Grantham said when asked if investors will learn anything from this turmoil, "We will learn an enormous amount in the very short term, quite a bit in the medium term and absolutely nothing in the long term. That would be the historical precedent."

*- Christopher R. Pavese, CFA*