



# Equilibrium Investment Management

*A balance between return, risk and capital preservation*

## Unconstrained Diversification

Special Report – March 2011

*By Alan F. Delcorse, Managing Director  
Equilibrium Investment Management*

### Executive Summary

- Diversifying a portfolio with only traditional investments may not provide the best opportunity to preserve capital
- It is critical to consider the concept of “non-correlation” within a portfolio to improve return while reducing risk
- Why do many Advisors limit their portfolio management “menu” to just traditional investments?
- Unconstrained diversification is an institutional strategy that allows for greater opportunities to find solutions beyond stocks, bonds and cash
- There needs to be a balance between the search for return, the risk it takes to get that return and the constant concern for capital preservation

What comes to mind when you think about portfolio diversification? The typical response relates to the traditional blending of asset classes - what portion should be allocated to stocks, what portion to bonds and what is left over goes to cash. The common “60/40 split” refers to allocating 60% to stocks and 40% to bonds to create a balanced approach to investing. You might also have in mind ways to further diversify a balanced portfolio by looking at the equity portion and making sure it is spread between small caps, large caps, value and growth and international. On the fixed-income side it obviously makes sense to invest in a variety of bonds to diversify quality, maturities, international, etc.

If the purpose of diversification is to help protect against unforeseen events then it makes good sense to have a balance of investments that are

uncorrelated to each other, so that in a market like we had in 2008 and early 2009, some investments might be going up when other investments were going down. A well diversified portfolio is meant to help to reduce systemic risk, also known as market risk. Unfortunately, we saw the disadvantages of a traditional portfolio allocation in 2008 when all investments seemed to have a high correlation to each other - thus they all went down together. Having US treasuries in this traditional portfolio was the exception. If we look a little deeper into diversification we can see that certain investments have lower correlations to the S&P 500, which is typically used as the reference point. The chart below shows the correlations of certain traditional investments to the S&P.

Correlation to the S&P 500 Index

Large Growth Stocks	0.95
Small Cap Stocks	0.80
Large Value Stocks	0.93
International Stocks	0.83
Bonds	-0.15

Past results are not necessarily indicative of future results.

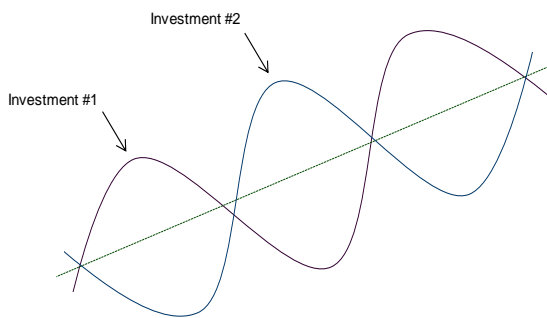
Before going further, let's discuss what we mean by correlation. A good definition of correlation is “a relationship between variables which tend to vary, be associated, or occur together in a way not expected on the basis of chance alone”. So if an investment has a high correlation, like large cap value stocks to the S&P 500 at .93 (see above), the two investments will tend to “occur together” and one will typically be up when the other is up and down when the other investment is down. The opposite of a perfect correlation of 1, when investments move exactly together in lock-step, is a negative correlation of minus 1, when investments move exactly in the opposite direction.



# Equilibrium Investment Management

A balance between return, risk and capital preservation

Below is a chart that reflects the movement of two investments that have a minus 1 correlation. Please note that if two investments are completely negatively correlated and there is an upward trending market-line an investor would receive the return of the market-line, without the volatility. We used this extreme and unlikely example of non-correlation just to emphasize the point.

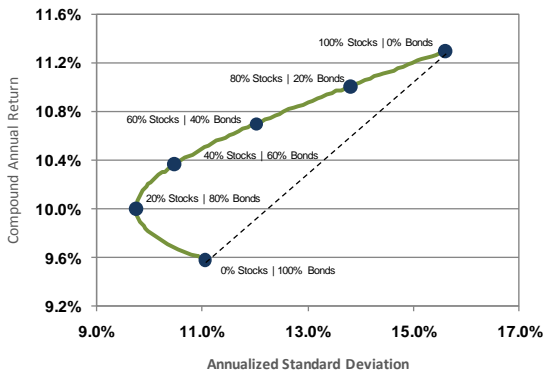


Past results are not necessarily indicative of future results.

In portfolio construction it is important to blend together investments that have the lowest possible correlation to each other. The results of blending low correlating investments together is that you can create a portfolio that has less risk and more return than a portfolio of highly correlating investments. The illustration below shows the impact of blending two of the lower correlating investments from chart #1, namely the S&P 500 and bonds:

Hypothetical Effect of Blending Stocks & Bonds<sup>1</sup>

January 1980 to December 2010



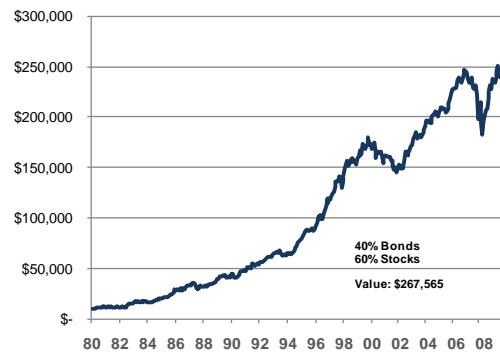
<sup>1</sup>Stocks and bonds are represented by the performance of the S&P 500 Index and the Barclay L.T. Treasury Index, respectively. Past results are not necessarily indicative of future results. Source: Barclay Trading Group and Bloomberg.

What is very interesting about the previous chart is that you would normally expect that the relationship between two points is a straight line. You would think that there would be a linear relationship between the point of 100% stocks (upper right-hand corner) and the point of 100% bonds (lower left-hand corner). But, as you can observe, there is a non-linear relationship when you blend the two investments together, since they have a degree of the non-correlation we have been talking about. The value-added difference between the straight line and the green curve is the benefit of getting more return for every level of risk, or less risk for every level of return.

Below we have used the traditional asset allocation of 60% stocks and 40% bonds to view the wealth building results of this combination over the past 31 years. In the chart below you can see that \$10,000 invested in January of 1980 grew to \$267,565 at the end of 2010. In the chart below we also introduce the topic of the volatility of a portfolio, expressed as the standard deviation of returns. Simply put, standard deviation is a measurement of the variability of returns away from the portfolio's mean return. The bigger the swings, the more volatile a portfolio is said to be and the smaller the swings, the less volatile a portfolio behaves.

Value of an Initial \$10,000 Investment<sup>1</sup>

January 1980 to December 2010



<sup>1</sup>Stocks and bonds are represented by the performance of the S&P 500 Index and the Barclay L.T. Treasury Index, respectively. The above results are based on annual rebalancing. Past results are not necessarily indicative of future results. Source: Barclay Trading Group and Bloomberg.



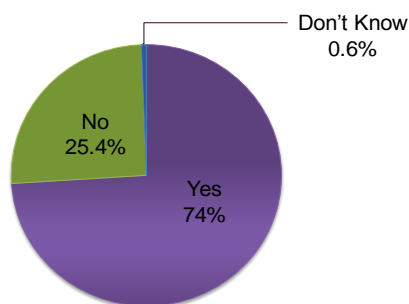
# Equilibrium Investment Management

A balance between return, risk and capital preservation

So far we have just talked about utilizing the traditional investments of stocks and bonds to diversify a portfolio, which is the typical “neighborhood” of most investment advisors.

Let’s now take a look at unconstrained diversification. There are three key questions; “First, can we find investments to further diversify a portfolio beyond the traditional investments of stocks and bonds”? Next, “are there asset classes that have distinct benefits to give us greater diversification, better non-correlation benefits and improve the risk/return characteristics of a portfolio”? And finally, “is there an equilibrium approach to investing that balances an investor’s interest in return, risk and capital preservation”? Let’s address the first question in greater detail.

In the June, 2009 edition of *Trends in Investing*, a special report from the Financial Planning Association, investment advisors were asked “did you recently, or are you currently, reevaluating the asset allocation strategy you typically use/recommend?”



Source: FPA Research Center's 2009 Trends in Investing study

It is interesting to note that 74% said YES! Obviously, after the recent bear market, in nearly all traditional investments, many advisors are looking for a better answer to the typical strategies of asset allocation. But why are so many advisors reevaluating their approach and what was lacking in their initial allocation? I would submit that these advisors were not as diversified as they thought and that their asset allocation was constrained.

One of the reasons for this is that most advisors are limited by training or their firms have imposed restrictions to only use traditional investments. This is even true for some of the more sophisticated advisor firms I have seen over the years.

## Defensive Growth

Let’s now take a look at other ways to diversify a portfolio in an unconstrained fashion. If we classify equities as “Growth”, there is another group of investments which we may call “Defensive growth”. There is something special about defensive growth investments in that they are used to reduce volatility while still seeking equity-like returns. Think about this - the potential of getting equity-like returns with less risk! Let’s take a look at some investments that fall into this category.

A *convertible security* is an investment that has fixed-income qualities blended with the right to convert into the underlying equity. Take a convertible bond as an example - a convertible bond is a fixed-income obligation of the issuing firm, yet provides for the right of the investor to convert the bond into a predetermined number of shares of the firm’s stock. Bottom-line, this combination of fixed-income and equity participation creates the potential for the extra safety and income of the bond with the potential equity growth from the conversion right. Prospectively, this means that an investor might capture 2/3<sup>rd</sup> of the upside of the underlying stock, yet only 1/3<sup>rd</sup> of the downside. This upside capture vs. downside experience contributes to the “defensive growth” characteristics of this asset class.

Another good example of this category is a dynamic “*buy/write*” program. Simply put, there are funds that invest their base holdings into large-cap equities based upon their proprietary models. Surrounding the core portfolio is an income generating strategy of selling calls on the S&P 500.



# Equilibrium Investment Management

*A balance between return, risk and capital preservation*

With the premiums that are received the fund can create income for its investors or use some of the proceeds to buy protective puts to create further downside protection. A fund like this is looking for greater return on the upside and less loss on the downside compared to the S&P 500.

Common themes of the two investments mentioned above are income, equity-like returns and lower volatility. Additionally, a reduction of “drawdown” from that which is experienced in the S&P 500 is critical as you think about capital preservation. A drawdown is the experience of a “peak to trough” fall in an investment’s value and is measured accordingly. It is important to remember that the best way to make money is not to lose as much money in a downturn. This concept is also known as downside protection.

We can see from the information above that there are investments that can be used to further reduce risk while at the same time increasing returns. So now let’s take this discussion one step further and consider the benefits of non-traditional investments. Examples of non-traditional investments are hedge-funds, real estate, commodities and managed futures. Let’s now take a look at the correlations of non-traditional investments to the S&P 500:

## Correlation to the S&P 500 Index

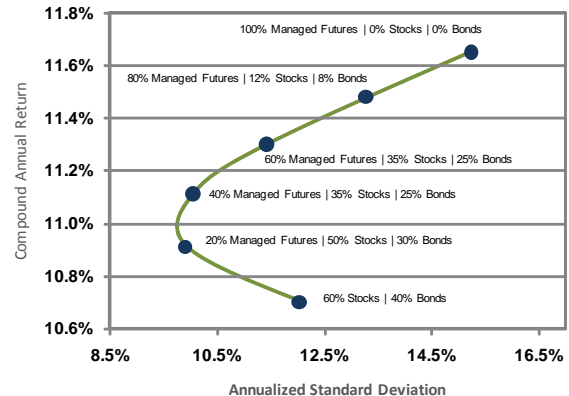
Real Estate	0.53
Managed Futures	-0.07
Commodities	0.30
Hedge Funds	0.59

Past results are not necessarily indicative of future results.

## The Impact of Managed Futures

We previously saw the benefit of blending together the lowest correlating investment from chart 1 (bonds) with the S&P 500. To answer our second question about effective additional asset classes, let’s take a look at using the traditional portfolio of 60% equities and 40% bonds and blending in managed futures to see if we can improve return and further reduce risk.

Hypothetical Effect of Blending Managed Futures with Stocks & Bonds<sup>1</sup>  
January 1980 to December 2010



<sup>1</sup>Stocks, bonds and managed futures are represented by the performance of the S&P 500 Index, the Barclay L.T. Treasury Index and the Barclay CTA Index, respectively. Past results are not necessarily indicative of future results.  
Source: Barclay Trading Group and Bloomberg.

You can see from the chart above that there is a dramatic improvement in the risk/return characteristics of a portfolio that includes managed futures. What you are observing is the benefit of introducing a negatively correlated investment into a portfolio that already had some efficiency to it (the prior blending of stocks and bonds). Please note that even with a 10% allocation to managed futures you can significantly reduce risk while increasing return. So what does all this mean to actual wealth building?

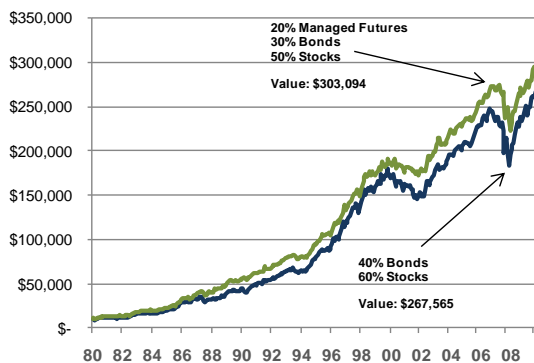


# Equilibrium Investment Management

A balance between return, risk and capital preservation

Please note in the chart below that the combination of lower volatility and increased return results in over a \$35,000 increase in portfolio value compared to the traditional portfolio of stocks and bonds. We previously talked about standard deviation and this “enhanced” portfolio is about 18% less volatile than the traditional portfolio based upon the comparison of the standard deviation of each portfolio.

Value of an Initial \$10,000 Investment<sup>1</sup>  
January 1980 to December 2010



<sup>1</sup>Stocks, bonds and managed futures are represented by the performance of the S&P 500 Index, the Barclay L.T. Treasury Index and the Barclay CTA Index, respectively. The above results are based on annual rebalancing. Past results are not necessarily indicative of future results.

Source: Barclay Trading Group and Bloomberg.

We used managed futures as an example because of the unique return and correlation attributes they exhibit. A good definition of managed futures is “a unique asset class driven by the investment decisions of professionals know as trading advisors. These trading advisors manage client assets using global markets (such as currencies, energy, agriculture, metals, etc.) as an investment medium. They take short or long positions, depending on trends of the markets or expected profit potential”. With exposure to broad, global markets, managed futures have the potential to be profitable in any economic environment.

The flexibility to take long or short positions in over 100 different global markets creates a unique pattern of returns and obviously no correlation to the equity market. The chart above

clearly demonstrates the impact of blending managed futures into a traditional portfolio.

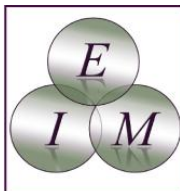
*“very few investors can claim to have fully diversified portfolios, with many relying on only two or three asset classes to help them achieve their objectives: the broader the compass of any portfolio, the greater its resistance to underperformance on the part of any individual component”*

“Why Rely on Equities” - Man Investments, December, 2008

## An Equilibrium Approach

To address our last question, it is important to say that at Equilibrium Investment Management we have a strong belief that there needs to be a balance between the search for return, the risk it takes to get that return and the constant concern for preserving capital. We also believe that portfolio management should be inclusive of the complete “menu” of investments and not restricted to the typical limitations set by most investment advisors or their firms. We appreciate that return is the goal of any portfolio and we realize that you cannot build wealth, achieve a specific retirement goal, plan for college expenses, etc. without having the appropriate return. The true question not only becomes, “what level of return does it take to achieve your financial goals?”, but just as importantly “what level of risk are you taking to get your returns?” Also, it is important to determine whether the risk level of a portfolio matches the risk tolerance of the investor. And last, but certainly not least, is the constant concern for preserving capital. We should all appreciate this concern since we have all been through two bear-markets in the past 10 years.

So what would the results of a portfolio created with unconstrained diversification have looked like over the past 10 year period?

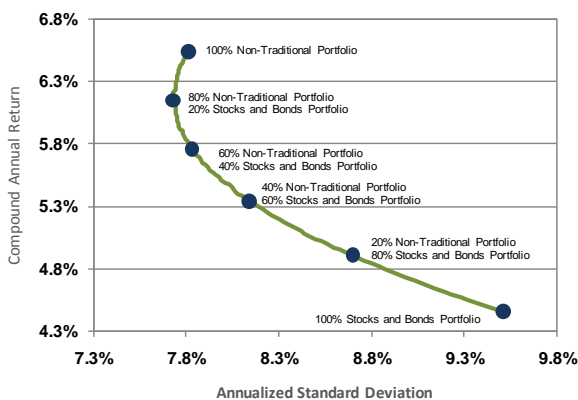


# Equilibrium Investment Management

*A balance between return, risk and capital preservation*

The chart below reflects the hypothetical results of a portfolio created by adding defensive growth and non-traditional investments to a portfolio of the 60/40 split between stocks and bonds we have been talking about.

Hypothetical Effect of Blending Non-Traditional Investments with Stocks & Bonds<sup>1</sup>  
January 2000 to December 2010



<sup>1</sup>Stocks and Bonds Portfolio: 60% S&P 500 TR Index & 40% Barclays L.T. Treasury Index  
Non-Traditional Portfolio: 25% Calamos Convertible Fund, 20% Barclay CTA Index, 20% HFRI Hedge Fund of Fund Index, 15% Gateway Buy/Write Fund, 10% Dow Jones REIT Index, & 10% Rogers International Commodity Index  
Source: Barclay Trading Group and Bloomberg.  
Past results are not necessarily indicative of future results.

## Summary

There are some very important investment concepts like non-correlation that should be strategically implemented to help improve the risk/return characteristics of a portfolio. We have discussed using an unconstrained diversification approach to investing in order to go beyond the traditional investments of stocks, bonds and cash. This greater diversification, investing in defensive growth funds and non-traditional investments, helps to further protect against the unforeseen events of the markets. The combined benefits of non-correlation and greater diversification can increase the return of a portfolio while reducing volatility. The net result of this is the greater potential to enhance wealth building, meet retirement objectives or help to achieve whatever your financial goals may be.

We have proposed that it is key to balance the search for return with the review of the risk it takes to get that return and the constant concern

for capital preservation. It is very important, therefore, to find an advisor that has the expertise to effectively balance these important considerations and take advantage of the benefits of investing with an unconstrained approach. If 75% of the respondents to the survey we looked at are questioning their asset allocation choices, I would venture to say that the other 25% of advisors are the investment professionals to consider when choosing someone for the important role of investment management.

Alan Delcorse, Managing Director  
Equilibrium Investment Management  
e: [adelcorse@upsecurities.com](mailto:adelcorse@upsecurities.com)  
t: 312-246-4404

Alan Delcorse has over 25 years of experience in the investment industry. He has the distinction of having worked at three world-class, leading money management firms-Merrill Lynch, Calamos Investments and Man Investments. In various roles for these three firms, Alan has managed investments or consulted for a variety of institutional clients and high-net worth individuals. Additionally, he has trained hundreds of advisors in the use of non-traditional and alternative investments to create more "intelligent" portfolios.

Alan has a strong passion for investing and is very excited about his approach at Equilibrium Investment Management, formed under the umbrella of Uhlmann Investment Management. Alan lives in the Stonebridge community in Aurora with his wife Debra and they have 3 grown children, Rebecca, Kimberly and Jeff. Alan is a member of the Investment Management Consultants Association and is a graduate of Northern Illinois University.

Correlation Table 1: Source: Barclays Trading Group Ltd. Large cap growth is represented by the returns of the Russell 1000 Growth Index, small cap is represented by the Russell 2000 Index, large cap value is represented by the Russell 1000 Value Index, international stocks are represented by the MSCI EAFE Index, and bonds are represented by the Barclays L.T. Treasury Index. Correlation Table 2: Source: Barclays Trading Group Ltd. Real estate is represented by the returns of the DJ US REIT Index, managed futures are represented by the Barclay CTA Index, commodities are represented by the RIC1, and hedge funds are represented by the HFRI Hedge Fund of Funds Index.