

How Can We Guard Against a Repeat of 2008?

Asset allocation is based on a concept called Modern Portfolio Theory (MPT); a Nobel Prize winning theory developed by Dr. Harry Markowitz for his PhD thesis in the 1950's. Dr. Markowitz's theory uses statistics to measure risk and aid in the design of portfolios by modeling how assets move in relation to one another using a statistic called "correlation." A couple of examples make it easy to understand. If two assets are perfectly correlated, i.e. they move in sync, then their correlation equals 1; if they move in opposite directions then the correlation is -1. If they move partially together or partially in an opposite fashion then the correlation ranges between 1 and -1.

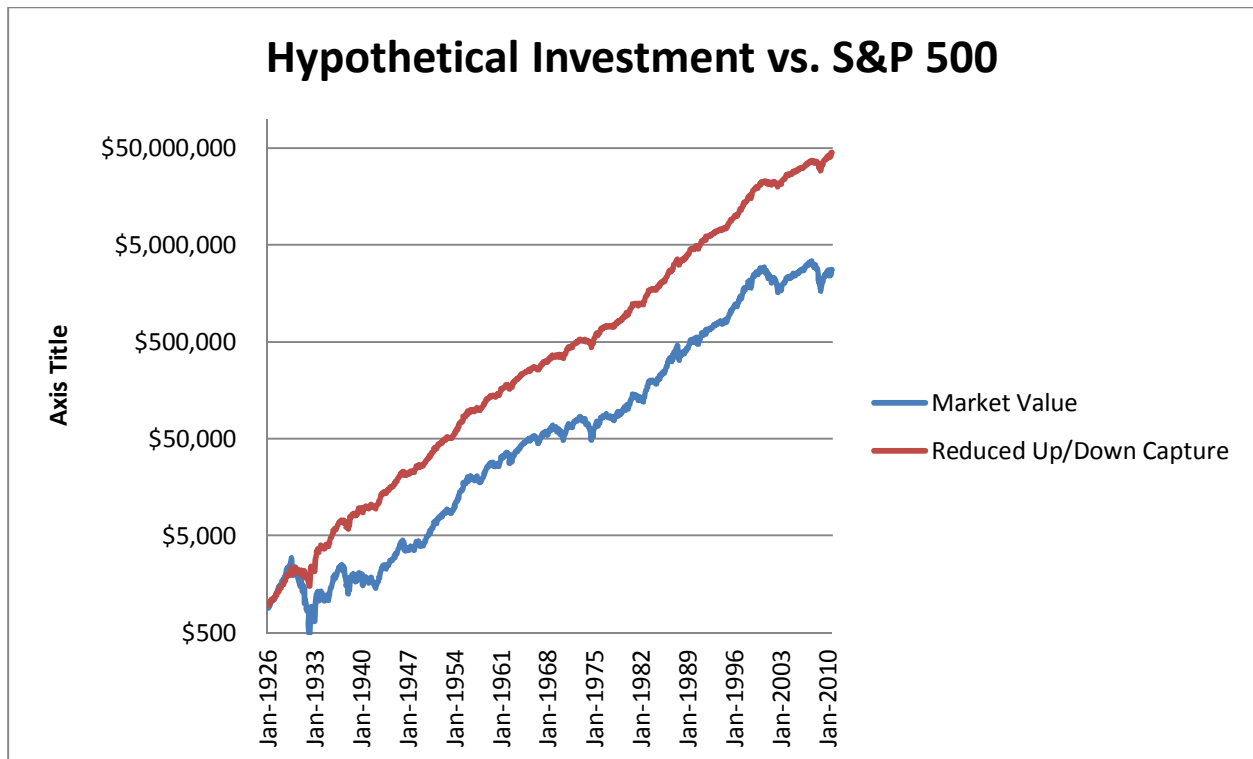
Dr. Markowitz used mathematical constructs to devise what he called "efficient" portfolios. Statistics like standard deviation (a measure of volatility) and correlation are used to combine assets whose price movements are not in sync; creating combinations that had **lower** risk than the individual components themselves. For any given desired return you could combine different assets with the risk of the portfolio having a minimum amount, making the portfolio "**efficient.**"

This enabled enlightened portfolio managers to understand how asset classes interact with one another so that the "right" ones could be combined in the "right" amounts to create portfolios with reduced risk. Real Estate, commodities, and international bonds and stock are asset classes that improve diversification since they "zig" while other assets (domestic stock, domestic bonds, etc.) "zag." This seemed to work well until 2008 when nearly every asset class dropped significantly; dramatically illustrating the fatal flaw in Markowitz's theory. Statistics used to model risk do not really work well during widespread and far-reaching events like a worldwide financial crises. Assets that are not normally correlated with one another are correlated in times of crises, and diversification fails. Large stocks fell 37% in 2008 and diversified portfolios dropped 25-30% instead of only 15-20% as expected. The difference is significant, because:

If you invest \$1.00 and you lose 50% of the investment's value it is now worth \$.50, so you need to earn 100% to recover your original investment. A well diversified portfolio that instead loses 25% of its value requires 33% return to recover. This is an important concept:

Not losing as much is more important than not winning as much!

What if you could devise a portfolio that only captures 40% of the market's downside? Such a great investment may not capture all the market's upside, but let's see what happens if this hypothetical portfolio does manage to go up 70% as much as the market in good times. How would your net worth grow?



(Based on an original investment of \$1,000, Blue line is the S&P 500, Red line is the hypothetical investment)

The results are stunning! Using the history of returns for the S&P 500 from 1926 to 2010 your net worth would be nearly 20 times higher than if you were invested solely in the S&P 500.

Lessons have been learned from the events of 2008 and smart advisors are responding by increasing their allocations to some of the asset classes and investment strategies that lost less including, hedge fund like strategies (now widely available through mutual funds) like: market neutral, equity long/short, convertible arbitrage, and merger arbitrage. New strategies that capture and profit from increases in market volatility which is nearly always associated with market declines are becoming available and are being used by more sophisticated portfolio managers. Those strategies may incorporate VIX (volatility index) futures or they may trade off weekly S&P 500 volatility vs. daily volatility. They are too complex to cover here but will be the subject for future columns.

So three important points have been made:

- In 2008 asset classes that traditionally have improved portfolio diversification did not help.
- It is critical that portfolio volatility and downside capture be reduced in order to improve performance since not losing is so important.
- Hedge fund like strategies and some new strategies now becoming available may help reduce downside capture in the future and help preserve wealth.