

The Harvester

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Why measuring risk is important:

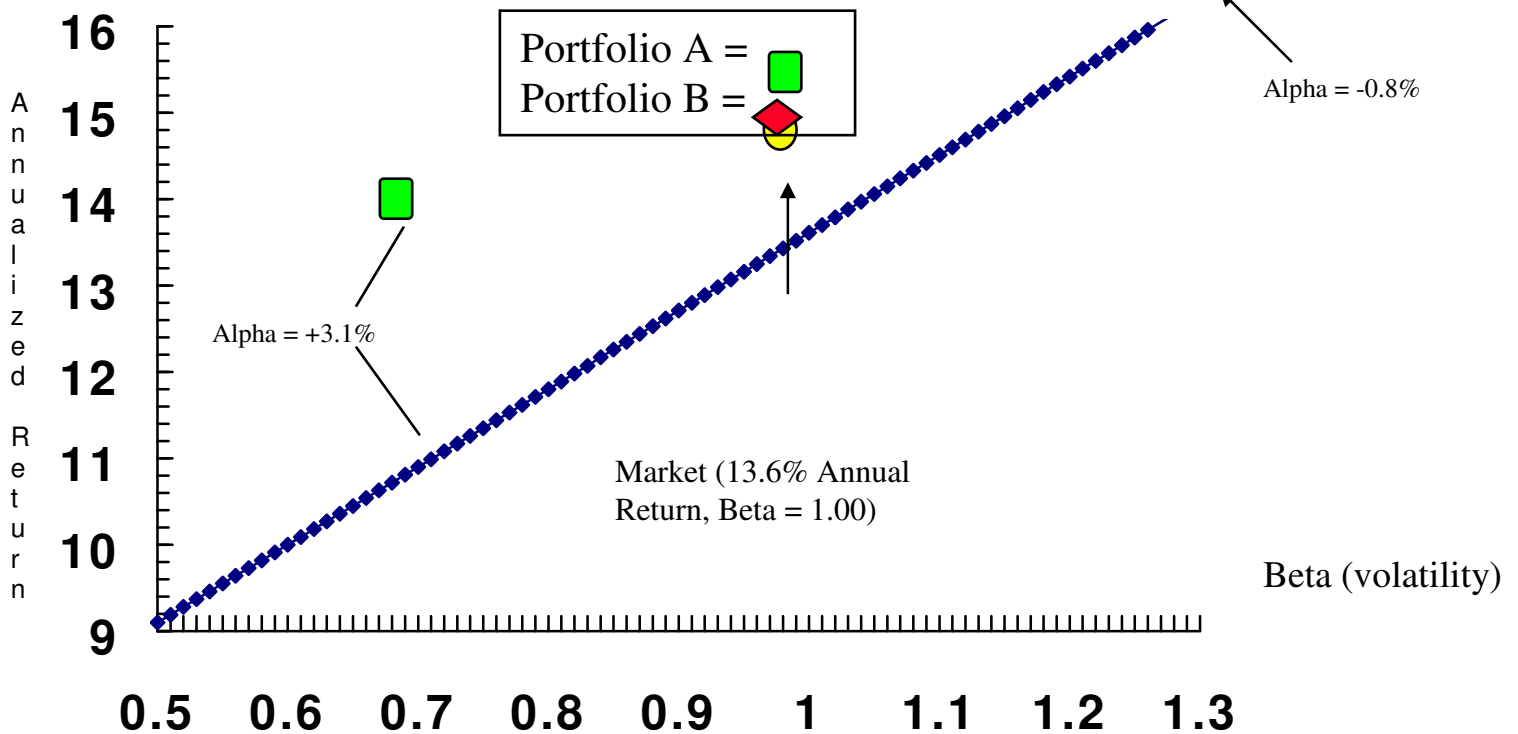
The past few months have been horrible for the stock market. The average stock in the S&P 500 Index is down -15% from their all time highs. The average over-the-counter stock is down -30%. It is during times like these that investors look at the volatility of their investment portfolio – usually only after their portfolio drops significantly in value. Obviously, there is a trade off between risk and reward (i.e., an investor should receive more return for any additional level of risk) which should be considered in good times as well as rocky times.

We believe the best tools for measuring risk and return are **Beta** and **Alpha**. Beta is a widely used measure of risk. Beta measures the average monthly (or quarterly) fluctuation of a portfolio relative to the returns of the overall market (whether it is the stock or bond market). The market's Beta is always 1.00. Alpha measures the risk-adjusted rate of return of a given portfolio. If your portfolio is performing as expected based on the level of risk taken, then Alpha would equal 0.00. A positive Alpha means that the manager is doing better than expected based on the level of risk taken, while a negative Alpha means the

manager is underperforming.

To illustrate the use of Beta and Alpha, we are going to compare two different portfolios. Portfolio A produced an annual rate of return of 14.0%, Portfolio B produced an annual return of 15.0% while the market produced a return of 13.6%. On the surface, Portfolio B would appear to be the more attractive alternative due to the higher return produced. However, by analyzing the risk of each portfolio, we come to a different conclusion. Portfolio A had a Beta of .70, while Portfolio B experienced a Beta of 1.30. In other words, Portfolio A fluctuated approximately 30% less than the market while Portfolio B fluctuated 30% more than the market.

The graph below depicts these two different portfolios' returns and levels of risks. The blue line represents the expected rate of return for each level of risk (Beta). Portfolio A has done a much better job than Portfolio B after considering the level of risk taken. Portfolio A generated a return higher than expected based on the level of risk taken (Alpha = +3.1%). Portfolio B produced a return **lower** than expected based on the level of risk taken (Alpha = -0.8%). As illustrated, absolute returns should not be



the only measure of investment performance, especially given the level of volatility most global markets are experiencing today.