# Portfolio Research's Approach to Investing and Asset Allocation

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Generating wealth requires a disciplined approach based on thoughtful strategy and mindful tactics. Without strategy investing becomes emotional and decisions unfocused. Without tactics fees, taxes and volatility create a drag on portfolio growth. Below we highlight key attributes of our investment model and discuss how it implements strategy and tactics.

## Strategy

### Seek Return but Mitigate Risk

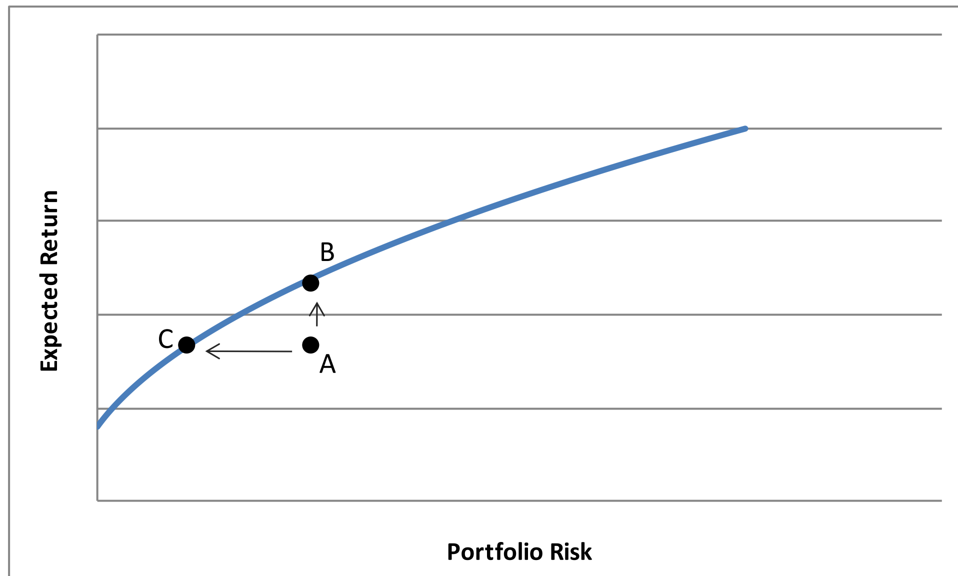
As an investor you should seek the highest rate of return possible for the risk you are willing to endure. Many investors think about their portfolio in terms of stocks and bonds. Allocating additional resources to bonds is one approach to reducing risk, but the decrease in return is costlier than necessary. Shifting wealth from risky assets to less risky assets is done at the peril of portfolio growth. Constructing a portfolio from a diverse set of assets can reduce risk without reducing return, but to take advantage of this, you must be able to measure the similarity of assets and quantify the benefits of diversification.

### Diversify Wisely

Simply spreading your wealth across different asset classes is a dangerous approach to diversification. The risk reduction benefit that one gets from diversification depends on how the returns of two assets are related–their correlation. While combining asset classes with low correlation into a portfolio can significantly reduce risk, combining asset classes with high correlation may not provide much risk reduction. To meaningfully benefit from diversification, it is necessary to measure correlation and allocate assets accordingly.

### Invest Efficiently

Nobel Laureate Harry Markowitz in his pioneering work on portfolio theory developed a framework for building efficient portfolios– portfolios that attain the lowest risk for the return obtained. Exhibit 1 charts an example set of efficient portfolios.




The area above the curve is unobtainable; however there are many portfolios that fall below the curve– these portfolios are ones that take on more risk than is necessary to obtain the same expected return. For example, consider point A, which represents an inefficient portfolio. This portfolio has room for improvement: it can move to point B and obtain more return without taking on more risk, it can move to point C and reduce risk while keeping return the same, or it can move to any point between B and C, and reduce risk and increase return. When your wealth is invested in an efficient portfolio, the only way to obtain a higher return is by taking on more risk. As an investor you should always seek efficiency. Otherwise there is lost return potential.

Portfolio Research asset allocations are constructed using similar efficiency principles as developed by Dr. Markowitz. We do not incorporate beliefs or predictions about the direction of markets or asset class returns. Like the academics, we don't believe that basing investment decisions on predictions of economic direction is a sound approach. It leads to more risk, higher costs and less return for the investor. Our investment model is designed to control risk and seek return using the following principles:

1. Investors require higher compensation when there is more risk involved
2. Combining investments with low correlation reduces the risk of their combination

Using these principles to guide our investment process, we build efficient portfolios that differ by the risk and return they offer.

**Tactics**

## Maintain an Optimal Allocation

Each month, using a suitable return history, we estimate the correlation among all asset classes, the risk (volatility) of each asset class, and the expected returns. These estimations allow us to construct an efficient frontier similar to what is plotted in Exhibit 1. Based on this information we recommend the

optimal percentage of wealth to invest in each asset class that depends on a selected risk tolerance. As the risk and the return relationships among asset classes change, so do our recommended allocations through time.

## Rebalance Intelligently

There is a tradeoff between rebalancing, which keeps your portfolio near an optimal allocation, and paying fees and taxes generated from trading. The tax structure of your account and the trading costs associated with your fund or ETF selections should dictate how frequently you trade. For each of our strategies we offer several rebalancing policies that address different tax and fee situations.

Our research, as well as other published results shows that using rebalancing thresholds is superior to calendar rebalancing. We recommend trades based on this research and on in house, state-of-the-art optimization procedures that minimize taxes and costs, while preserving growth and risk objectives.

## Minimize Fees and Taxes

Nothing reduces investment returns like fees. Index funds and ETFs that track a market index generally have more attractive fee structures than actively managed funds. Interestingly, many investors flock to actively managed funds, for the perceived additional returns. Yet, it is a simple tautology that the collection of actively managed funds must underperform their index after fees. Individual investors using our asset allocation model are free to invest in the recommended asset classes using a managed or passive approach. However, our recommended fund list is comprised of passive funds and ETFs that offer attractive rates.

**Conclusion**

An efficient approach to investing requires strategy and tactics. Implementation of an efficient approach requires analytics–volatilities and correlations must be assessed to determine diversification opportunities and optimization procedures are required to identify the efficient frontier. Similarly, analytics are required to understand risk and tax implications associated with rebalancing policies.

What results can one expect from an analytical investment approach like ours? Our strategies are designed to obtain sustainable advantages that come from maintaining efficiency, reducing fees and volatility, and managing trading costs and taxes. Over time, these advantages compound into meaningful outperformance. Over 30 years the difference in wealth from a small return difference can be extremely large. Our focus is on long term outperformance derived from building efficient portfolios.