The Case for Tactical Asset Allocation

Is the “Long Run” Just Too Long?
Jeremy Siegel’s *Stocks for the Long Run* is one of the first resources to put hard numerical evidence behind the conventional wisdom of “buy and hold”. Going back as far as 1802, the author calculates a long-run average real return of 6.5 to 7 percent for equity markets.

While that rate is certainly compelling from a compounding perspective, an investor’s time horizon and many capital allocation decisions are not made over the “long run”. Many factors result in investment returns that skew from an academic view of long-averages such as:

- A 40 year, or less, investment horizon
- Dynamic investment contributions & income growth
- Changing savings rates (5.7% at age 25 to 9.3% at age 55)
- Shifting risk preferences as investors age
- Dynamic liabilities (educations, mortgages, cars, etc.)

These factors mean that the order of market returns is perhaps more important than the long-term average in determining investment outcomes. In the short-term, markets can, and will be turbulent: The annual returns for the S&P 500 Index, on average, differ from the long-run average by 14%. The result? A historical 27% probability that $1 invested in the S&P 500 Index would be worth less than $1, in real-terms, ten years later. For example, in the graph below, we can see that $1 invested in almost anytime from 1965 – 1973 stood a good chance of being worth less than $1 a decade later. These are material risks that can steer everyday investors off-course, and don’t even consider the emotional turmoil caused by market volatility.

This graph plots annualized inflation-adjusted total returns for the S&P 500 over rolling 10-year periods. We see that when an investor invests can be critical in determining her financial future.

The traditional remedy for these concerns has been *diversification*, but as we will see in the next section, the concept on its own is by no means a panacea.

**Diversification: Not Quite a “Free Lunch”**

It was not until Harry Markowitz’s work in the 1950s, which eventually coalesced into Modern Portfolio Theory, that the concepts of diversification were mathematically defined. But slide-rules aside, the concept of diversification can be succinctly explained: “don’t put all your eggs in one basket.” In investing, that means allocating capital to multiple asset classes to reduce *idiosyncratic* risk. The magic behind diversification – and one of the reasons it is considered to be the only “free lunch” available in the marketplace – is that a portfolio of assets will always have a risk level less-than-or-equal-to the riskiest asset within the portfolio.

A combination of assets, therefore, can help reduce an investor’s deviation from long-run return averages. One view of asset classes is to break them down into high return, but riskier, *return generators* (e.g. stocks) and safer, but lower returning, *risk mitigators* (e.g. bonds). A combination of such assets would, ideally, allow investors to meet their financial objectives within their risk tolerances.
One of the benefits of diversification is that a portfolio combination of return generators and risk mitigators can often provide an asymmetric tradeoff in the reduction of total return versus the reduction of portfolio risk. We can see this in long-run average annualized return and volatility numbers for the S&P 500, 10-Year constant maturity U.S. Treasuries, and a 60/40 portfolio of both.

To achieve the reduction in risk, a premium had to be paid from the annualized return (a premium that will be highly dependent on future bond returns). However, the premium paid for the risk reduction is much lower than the premium paid had we simply purchased only bonds, making the diversification exercise a compelling risk-reduction tool.

Diversification as an Insurance Policy
Diversification is not dissimilar to buying fire or flood insurance for a home: an insurance premium is paid to protect against losses. If the risks are never realized we have paid a premium for naught.

Using monte-carlo techniques, we estimate that the S&P 500 Index suffers a drawdown in excess of 30% on average only once every 10 years; consider this event our flood or our fire. The return-reducing effect of risk mitigators in a well-diversified portfolio is, therefore, like paying an insurance premium for ten years for one year of protection. In the long run, the thesis of diversification is that the asymmetric trade-off between

The difference in annualized return between the S&P 500 and a 60/40 portfolio is the “premium” paid (due to holding lower-returning bonds) to achieve the greatly reduced annualized volatility.
premium paid versus risk mitigation works out in the favor of long-term total return.

Viewed in this manner, there are three primary issues facing diversification going forward.

**The Premium is Getting More Expensive**
One of the unique realities of the last 20 years has been the bull market in U.S. Treasuries due to declining interest rates. This trend has created an environment whereby our risk mitigator was also a tremendous return generator. This made a 60/40 portfolio an incredibly attractive investment profile.

However, this reality was not always the case. Older investors will remember a very different interest rate environment whereby the use of the risk mitigator within the portfolio came with a hefty premium. From 1963 to late 1981, a constant maturity index of 10-year U.S. Treasuries had an annualized LOSS of 3.15%: diversification was certainly not free.

While there is no guarantee that rates will necessarily rise, they do sit near long-term historical lows and are unlikely to go much lower. As current bond yields are great predictors of long-term fixed-income returns, the return-generating ability of bonds may be stifled over the next decade. As such, we believe it makes
sense to consider other methodologies to manage risk within a portfolio.

With a few simplifying assumptions, it can be demonstrated that the expected return of a constant-maturity bond index is equal to current on-the-run bond yields; we see this theoretical relationship play out in the high degree of correlation between the starting period bond yields and forward 10-year annualized returns for 10-year U.S. Treasuries.

Sizing the Policy is Difficult

The archetypal “balanced portfolio”, a 60/40 split between stocks and bonds, has been a stalwart of portfolio construction for several decades. However, it is difficult to find any references as to where the concept for the 60/40 originated.

The 60/40 portfolio appears to originate from Markowitz’s concept of the “market portfolio,” a theoretical market-capitalization-weighted portfolio of all investable assets, world-wide. In the 1950s, the U.S. equity market had a total capitalization of approximately $5T and the bond market had a total notional value of approximately $4T. Since then, the ratio has reversed, the total U.S. equity market capitalization exceeding $18T and the bond market approaching $40T, placing the new ratio closer to 30/70.

So while the original 60/40 may have been founded on solid, albeit theoretical, ground, the staying power of the 60/40 portfolio may have been more due to its ease of implementation and marketability. Consider how well it fit with common sense investing sound bites, such as “own your age” in bonds.
The problem with the 60/40 portfolio is that an asset allocation is \textit{not} a consistent risk profile. Nevertheless, we have effectively sized our insurance policy as if it were. By plotting the realized, rolling quarterly volatility profile of a 60/40 portfolio, we can clearly see that the risk profile of the portfolio is anything but stable over time.

\textbf{The Payoff is Uncertain}

Unlike insurance, diversification is non-guaranteed. In other words, the macro-economic environment may be such that our risk mitigators become sensitive to the risks we are trying to protect against. For example, stocks and bonds are likely to both be positively correlated to inflation shocks. Or, quite simply, we might have the \textit{wrong} risk mitigators in our portfolio for the prevailing risk in the market place.
From a mathematical perspective, diversification is often measured through correlation, a statistical metric that measures the similarity of movement between asset classes. Over the last several decades, cross-geographic and cross asset-class correlations have been on the rise, reducing the efficacy of diversification (by adding additional asset classes) as a risk management tool in a portfolio. The rise in correlations has been blamed on both macro-economic factors (e.g. globalization) and micro-market factors (e.g. indexing) alike.

Furthermore, correlation is difficult to estimate because most estimates rely on purely historical data. Correlations are not stable over time, meaning that constructing a portfolio policy based on historical correlations can leave us unprotected – or over-protected – from certain risks going forward.

**What is Tactical Asset Allocation?**

At a high level, tactical asset allocation (“TAA”) is a dynamic investment strategy that actively reallocates capital based on prevailing macro-economic themes, seeking to under-allocate to unfavorable asset classes and over-allocate to favorable ones. In more recent years, tactical solutions have heavily focused on capital protection where the target outcome is not too dissimilar to diversification. The difference lies in the process utilized to achieve the outcome: instead of constantly utilizing risk mitigators within the portfolio, a TAA methodology will
frequently re-evaluate the macro-economic environment to determine when to selectively add risk mitigators into the portfolio.

**Tactical Asset Allocation as an Insurance Policy**

Similar to diversification, the de-risking capabilities of a TAA strategy can be evaluated in the context of an insurance policy. Where diversification is akin to holding both fire and flood insurance, a tactical solution is more similar to buying short-term fire insurance when it looks like a fire is likely and short-term flood insurance when a flood is likely. If the tactical model is correct in its macro analysis, it can opportunistically de-risk the portfolio exposures to protect capital and re-risk to participate in market growth. If the model is incorrect and de-risks the portfolio unnecessarily, a premium is paid in the form of trading costs and *whipsaw* (the losses from buying high and selling low or missed opportunity costs from selling low and buying high).

While it comes with its own costs, the utilization of tactical strategies can provide solutions for the three problems facing diversification outlined above.

**Expensive Premium? = Shop the Policy**

The cost of incorporating traditional risk mitigators into a portfolio may become more expensive for investors in coming years. Fortunately, tactical asset allocation strategies look to only *selectively* apply these risk mitigators. Furthermore, in unconstrained strategies, each emerging macro-economic trend can be evaluated independently and the most effective, lowest-cost risk mitigator can be deployed. So while a diversified solution looks to carry insurance policies for *all* risks, tactical solutions look to selective apply policies for only the most prevalent risks. This difference can dramatically reduce total return drag within the portfolio.

**Policy Sizing = Intuitive**

With diversification, it can be difficult to determine the appropriate allocation to risk mitigators to create a consistent risk profile. Allocations to tactical solutions can be quite intuitive: the tactical allocation sleeve of a portfolio should be sized such that it never exceeds the lower or upper allocation bounds for any asset class.

Consider an investor with a strategic 60/40 portfolio willing to vary her allocations within the range of 20/80 and 80/20. The tactical
solution she wishes to employ is completely unconstrained and can range between 0/100 and 100/0. By reconfiguring her portfolio to now be 40% stocks, 20% bonds and 40% tactical, she has a flexible solution that will vary within the allocation limits she feels comfortable with.

**Payoff Still Uncertain = BUT Potentially Better Together**

Unfortunately, similar to diversification, the defensive benefits of a tactical solution are non-guaranteed. However, strategic approaches and tactical solutions are by no means mutually exclusive within a portfolio. In fact, we advocate for the incorporation of both within an investor’s portfolio for the benefit of process diversification.

**When is Strategy Alpha Different than Strategy Use Alpha?**

Alpha is a measure of strategy performance on a risk-adjusted basis. In non-technical terms, the alpha measure seeks to capture the excess return generated by a manager beyond expected compensation for the risks borne. Traditionally, advisors have sought to substitute alpha-generating managers for the passive benchmarks in their strategic policy allocation.

To date, the use of tactical models has followed this standard procedure. However, since tactical strategies struggle to fit within a traditional benchmarking framework, we believe that using tactical strategies in this manner is sub-optimal. Unconstrained tactical strategies frequently deviate from benchmarks in a large, meaningful manner, making a one-to-one strategy-for-benchmark substitution within a strategic policy allocation near impossible.

Tactical strategies can, however, enable an investor to increase exposure to return generating asset classes. By providing a mechanism whereby a strategy can de- and re-risk, investors may feel comfortable increasing the risk level of their policy portfolio. As a simple example, consider a traditional “60/40” stock/bond portfolio and a tactical strategy that switches between stocks and bonds. With a strategy that has the ability to de-risk, an investor may now be comfortable increasing risk up a 70/30 level, which can have a meaningful impact on total return generated over the investment lifecycle. By holding a 60/30/10 stock/bond/tactical portfolio, the overall allocation has the ability to pivot between a 70/30 stock/bond portfolio to a 60/40 stock/bond portfolio.
This effect can be so powerful that the tactical strategy can actually exhibit *negative* alpha compared to a traditional benchmark but still add value within the overall portfolio construction. If, in our example above, stocks return 8% a year and the tactical strategy returns 7% a year, then by most definitions the strategy is underperforming its traditional, passive benchmark. However, if bonds are returning 4% a year, by replacing bond exposure with the tactical strategy, we have increased the return profile of the portfolio as a whole. Of course, our willingness to increase our exposure to riskier return generating assets is contingent on our belief that the tactical strategy can effectively de-risk.

With diversification, the tendency is to constantly underweight return generating assets to compensate for the inability to manage volatility during market crashes with a static allocation. Since TAA can help smooth out the volatility experience, a 60/40 investor may now feel comfortable holding an 80/20 portfolio knowing that it can selectively de-risk to a 40/60 profile. We believe this is an oft-overlooked aspect of TAA that makes it a truly attractive offering, especially when the premium for holding insurance is high and/or increasing.

**Conclusion**

While we believe that while a well diversified, strategic asset allocation should serve as the basis for any investor’s investment policy, current economic and market conditions may lead to the decreased effectiveness of diversification as a risk mitigation tool. Low, and potentially rising, interest rates make traditional diversifiers expensive, and rising and unstable correlations mean that a static allocation is less likely to deliver a consistent risk profile. We believe that tactical asset allocation that can dynamically react to emerging risks in the market can help supplement diversification and deliver a more consistent risk profile. By smoothing out the volatility experience, TAA may enable investors to carry more risk generating assets within their portfolio, which can lead to increased total return over their investment lifecycle.
Past performance is no guarantee of future returns.

• IMPORTANT: The projections or other information generated by Newfound Research LLC regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results.

• All investing is subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

• These materials represent an assessment of the market environment at specific points in time and are intended neither to be a guarantee of future events nor as a primary basis for investment decisions. The performance results should not be construed as advice meeting the particular needs of any investor. Neither the information presented nor any opinion expressed herein constitutes a solicitation for the purchase or sale of any security. Past performance is not indicative of future performance and investments in equity securities do present risk of loss. Newfound Research LLC’s results are historical and their ability to repeat could be affected by material market or economic conditions, among other things.