Astor Investment Management

Why and How to Pick Tactical for Your Portfolio

A TACTICAL PRIMER

Markets and economies have exhibited characteristics over the past two decades dissimilar to the years which came before. We have experienced two of the greatest bull markets in history, as well as two of the largest bear markets, which happened within seven years of each other. Financial markets have become much more complex and participation rates have risen dramatically. U.S. equities have had positive returns over most periods, attracting investors who extrapolate future returns based on past performance. As a result, the market participant sophistication spectrum has widened dramatically. Many 9-5 mom and pop workers, who know little more than what a stock or bond is, have flocked to a venue populated with those who spend all their waking hours in these markets. Because of the growing complexities of the marketplace, depending on these markets as a way to increase wealth and save for retirement has become problematic in recent years. As volatility and drawdowns have inflicted wealth depletion on investors, sometimes irreparably, it has become more difficult for advisors and investors to make and meet investment goals.

Tactical is an increasingly popular approach toward asset management. This investment approach is named after the philosophy of making substantial adjustments away from a baseline or standard investment approach with the objective of achieving a better risk-adjusted return than that of the benchmark. This approach has evolved from more traditional "Active" management. The tools available in the marketplace, specifically ETFs, have made accessing and taking a position in almost any market or asset class possible. The approach can differ with managers classifying themselves variously as fundamental, quantitative, or a mixture of the two. The ultimate objective of a tactical approach is to help the advisors or end clients achieve financial goals by enhancing returns, mitigating volatility, or both. Tactical is not an asset class, but rather an investment approach.

This note seeks to make two points about why and how to pick a tactical manager.
SECTION 1 shows that Tactical could provide better risk-adjusted returns than a static allocation to asset class buckets.
SECTION 2 shows that, within Tactical, picking a diversified portfolio of managers is vital to achieving Tactical's goals.

SECTION 1: Moving beyond style/size indices - how Tactical may enhance performance

As we mentioned above, tactical asset allocation strategies have grown steadily over the past decade to become a predominant investing style. To be sure, 13 out of the largest 25 funds in Morningstar's ETF Landscape summary report Q3 2013 identify as tactical. Out of 178 managers surveyed by the Greenwich Associates U.S. Exchange Traded Funds study in 2013, 72.4% employed tactical adjustments using ETFs.

Tactical has not only emerged as a recognized investment approach, it is growing rapidly every year. Out of the funds with the largest YTD asset growth as of September 30th reported by Morningstar, 60% of the inflows were into tactical funds.

What has made Tactical so popular? In secular bull markets, such as the one in the 1990s, a buy and hold strategy was acceptable. But diversification within the style/size boxes will not protect a fund from a market collapse, especially if all asset classes become highly correlated during those episodes.

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Chart 1 (a)

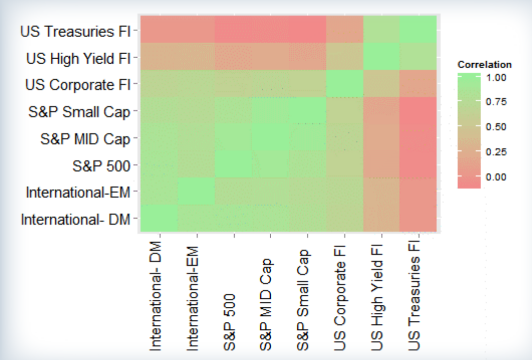


Chart 1 (a):
Asset Class correlation matrix for the period 01/2000 - 12/2013.
Range of correlations varies from **-0.1** to **0.94**.

Chart 1 (b)

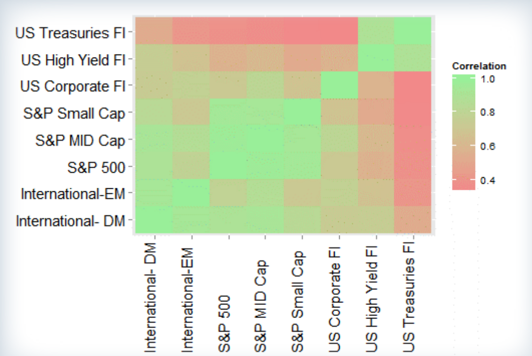


Chart 1 (b):
Higher asset class correlations during the Great Recession 12/2007 - 06/2009. The range of correlations is from **0.33** to **0.97**.

Source: Bloomberg

As we can see in the correlation matrices above, the typical asset class correlations break down during periods of economic crisis. For instance, the correlation between the S&P 500 Index and US Treasuries rose to a positive 0.37 between 2007 and 2009, a reversal from the typical average negative correlation in the last decade of -0.09. High asset correlations are not only seen during significant bear market events, but at any time in a full-market cycle when volatility rises or common factors affecting multiple asset classes change. This is where tactical strategies are at an advantage. Static funds that construct portfolios based on past asset class dynamics will always stay one step behind, whereas tactical strategies can look beyond traditional assets to provide diversification in all market environments.

As a result, most tactical strategies have performed better and are less volatile than the traditional benchmarks, such as a 100% S&P 500 Index allocation or a 60% stocks and 40% bonds static portfolio.

Most Tactical ETF funds have higher risk-adjusted returns and lower drawdowns than traditional benchmarks. The Tactical Strategies' Index, shown in the Chart below, is a current AUM-weighted index of 32 tactical funds (with AUM greater than $100 million) using Morningstar data. Since most funds have a track record of only the past 5-6 year, the returns shown only go as far back as 2007. As seen in Chart 2, tactical strategies as an aggregate group have consistently outperformed the S&P 500 Index, 60% Stocks/40% bonds portfolio and HFRI Hedge Funds' Composite both historically and more recently.

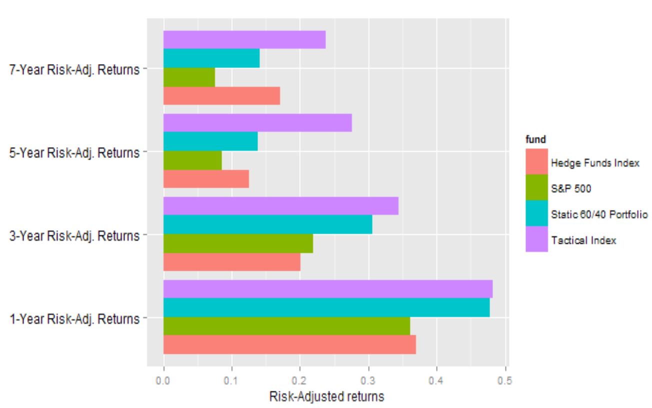


Chart 2:
Cumulative Risk-Adjusted Returns of Tactical Index vs. benchmarks. The average Tactical strategy has better risk-adjusted performance against the S&P 500 Index, 60/40 and the HFRI hedge funds index.

Source: Morningstar, Astor Research

Past performance is not a guarantee of future results

Tactical funds may also be better positioned to respond to market downturns by shifting allocations quickly and efficiently. ***The aggregated Tactical Strategies Index has shown lower drawdown than the S&P 500 Index, especially in periods of market distress (Chart 3).***

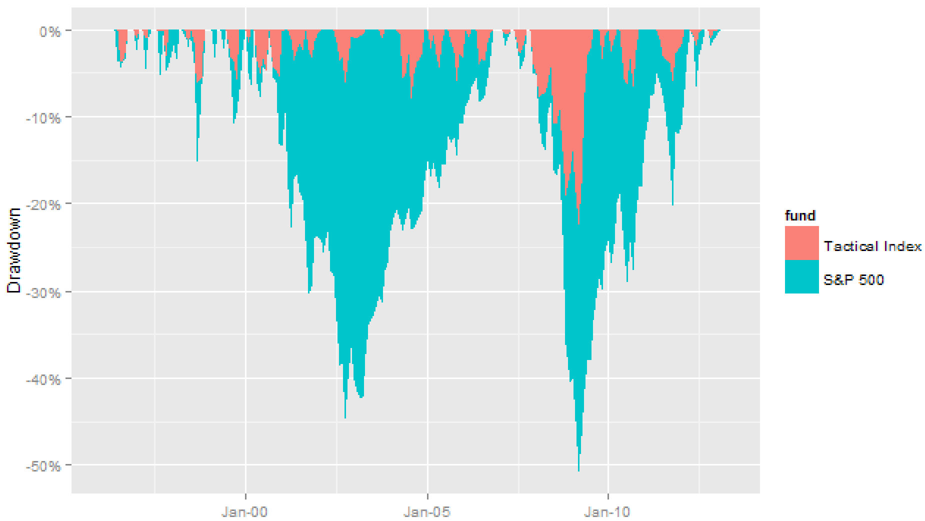
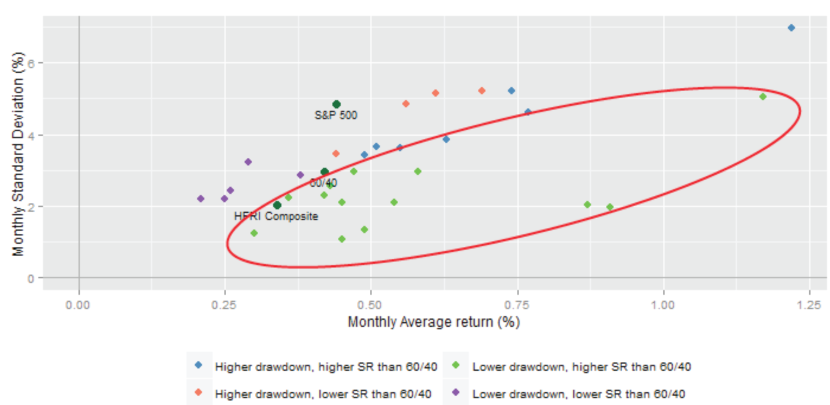


Chart 3:
% Drawdown for the Tactical Index and the S&P 500 Index from Jan 1996 - Dec 2013

Past performance is not a guarantee of future results

When disaggregated into individual funds, most tactical strategies still show better performance than benchmarks but there is diversity in performance and riskiness of strategies.

Chart 4:
Performance of Individual Tactical Fund with >$100mil AUM and 7 years of track record (Jan 2007 - Dec 2013)



Past performance is not a guarantee of future results

The chart above shows individual tactical strategies with at least $100 million in AUM and a track record since 2007. Compared to hedge funds represented by the HFRI Composite Index, tactical strategies show better performance with lower fees charged. 84% of the tactical funds ended higher than the global equally-weighted HFRI single-manager funds composite for the sample period 2007 to December 2013. But better returns are not at the expense of higher volatility. 26 out of the 32 tactical funds were less volatile than the S&P 500 Index.

There is some diversity in performance compared to a static a 60% stocks/40% bonds portfolio. In Chart 4 above, we have highlighted the best among the tactical universe: funds with better Sharpe ratios and lower drawdowns than a 60/40 portfolio. Astor's flagship Long/Short ETF Fund is part of this category of funds with higher risk-adjusted returns and lower downside risk than the 60/40.

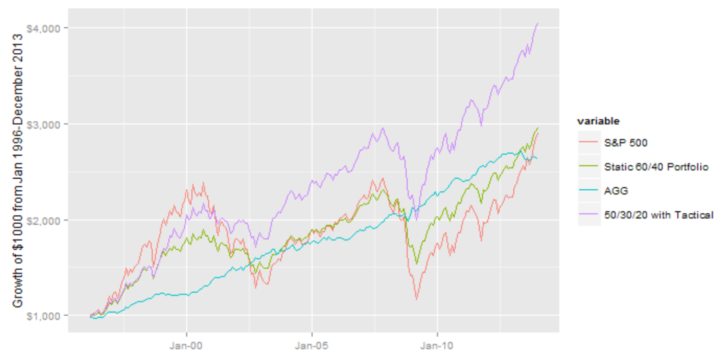
As we discuss in the next section, this heterogeneity among tactical strategies brings with it an important diversification effect for managers. In most cases, a portfolio of tactical managers with low correlation to each other is better than investing in a single manager.

Conclusion: Tactical, as an investment approach, has evolved from the fixed asset class silos into a multi-asset 'go-anywhere' approach that has shown better risk-adjusted performance, especially during market downturns. Adding the average tactical manager to a static portfolio can improve returns, reduce volatility and lessen drawdowns, as tactical strategies search among the asset classes for superior alpha without the higher fees of hedge funds.

To illustrate, start with a static 60% stocks/40% bonds portfolio and add to it a 20% exposure to an average tactical strategy, which is an AUM-weighted average of 32 tactical funds. As shown in Chart 5, $1000 invested in a 50% S&P 500 Index, 30% Barclays US Aggregate Bonds Index and 20% tactical portfolio in 1996 would have generated $4710 today and $3570 in a 60/40 portfolio. ***Adding even a small exposure to tactical in an index-following passive portfolio can significantly improve returns while bringing down the overall portfolio risks as demonstrated by the performance of a 50% stocks/30% bonds/20% tactical portfolio versus 60% stocks/40% bonds.***

Chart 5:

Performance of a **50% stocks/30% bonds/20% tactical porfolio** vs. benchmarks



Past performance is not a guarantee of future results

In the next section, we discuss strategies for exposure to the tactical space. In our research, we find that investing in a portfolio of tactical managers can be a better investment strategy for adding tactical than using a single manager.

SECTION 2: Diversify your tactical managers; diversifying assets is not enough

According to data obtained from Morningstar, the total number of tactical funds available has increased from just 2 tactical funds using ETFs in 1993 to 205 such strategies in December 2013. These strategies vary by asset exposure (all asset/equity/fixed income), by universe (U.S./global) and by style (broad based/all-inclusive/sector). The Chart below shows the categorization of strategies in the tactical space that use ETFs to get exposure to their primary asset classes. The largest strategies identify their primary asset class as U.S. Equity (a total of $27 billion AUM), 50% of which are broad-based, 49% are sector strategies and 1% are all-inclusive funds.

The heterogeneity within each of those categories is important to note. Broad-based U.S. equity tactical managers are not interchangeable the way typical U.S. equity mutual funds may be. Tactical strategies are characterized by their ability to zig in and out of asset classes in search for the best investment opportunity. So, even if they identify by a primary asset class, such as U.S. equity, any two tactical funds in that group will be dissimilar in strategy and performance.

Chart 6:

AUM (in millions) and number of tactical funds by Universe and primary asset class (as of December 31, 2013).

Source: Morningstar

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TACTICAL ETF MANAGERS ARE NOT SUBSTITUTABLE

In fact, the performance of tactical ETF managers is much less correlated than that of traditional passive and even of active mutual fund managers. The average pairwise correlation of the 15 biggest large-cap mutual funds is high at 0.93. Compared to that, the largest 15 tactical managers show a much lower mean correlation of 0.55. To illustrate this better, Table 1 shows the beta of the 5 largest U.S. Equity large cap mutual funds and compares it with the beta of the 5 largest tactical funds whose primary asset class is U.S. Equity. The beta of tactical funds varies much more with a range of 0.22 to 1.02 compared to typical equity mutual funds that offer more or less the same exposure to the benchmark. This heterogeneity illustrates the benefits of diversifying with and diversifying amongst the tactical managers themselves.

Typical passive and active mutual fund managers are constrained within their narrow style box of assets and one manager's performance may not be significantly different from the other. However, active tactical ETF managers have wider and more varied ranges of asset classes and strategies at their disposal. You can't just 'pick' tactical for a portfolio without carefully evaluating the manager or the strategy since tactical funds are not substitutable like mutual funds may be.

Table 1: Beta of the 5 largest U.S. large cap mutual funds and Tactical U.S. Equity funds with the S&P 500

5 largest US Large cap mutual fund	Beta	5 Largest Tactical US Equity Fund	Beta
Vanguard Total Stock Market Index Fund	1.028	Tactical 1	0.638
Vanguard Institutional Index Fund	0.997	Tactical 2	0.216
Vanguard 500 Index Fund	0.997	Tactical 3	0.270
American Funds: Capital World Growth & Income	1.031	Tactical 4	0.704
American Washington Mutual Investors Fund	0.890	Tactical 5	1.023

Diversification benefit: a portfolio of tactical managers may perform better than a single manager

To quantify the benefits of diversification at the manager level, a simulation depicted in Chart 7 below compared the performance of a randomly selected diversified portfolio of 3 managers with a single manager. For the portfolio, 3 managers were randomly picked out of the sample of tactical ETF managers. To ensure the portfolio was diversified, the correlation between any 2 of the managers was set to be less than the average correlation of 0.55. An equal-weighted portfolio was created and compared to a randomly selected single manager from our tactical ETF sample. This exercise was repeated 5000 times.

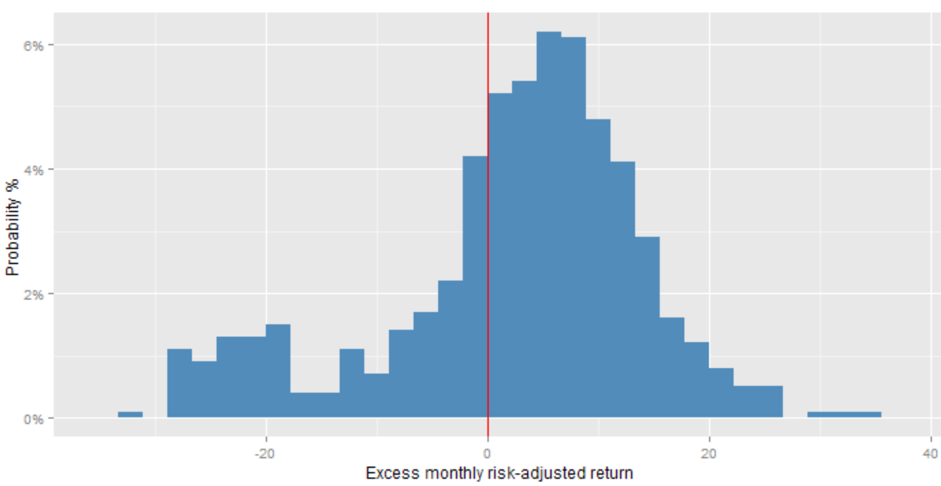

Chart 7:
Simulation showing probability of excess risk-adjusted returns from investing in a randomly selected portfolio of 3 tactical managers versus a single tactical manager

Source: Morningstar, Astor Research

Past performance is not a guarantee of future results

Chart 7 shows the simulation results. The bars represent the distribution of excess risk-adjusted return of a portfolio of 3 tactical managers over a single tactical manager. For 70.5% of the iterations, the portfolio had a higher Sharpe ratio than a single manager. In other words, with a 70.5% probability, a randomly selected equally weighted portfolio of 3 managers showed better risk-adjusted performance than a portfolio that only has 1 tactical manager.

Does the same hold for static mutual funds? The simulation was repeated for top 15 large-cap mutual funds, ranked by AUM. The mutual funds in the portfolio of 3 are chosen so that any 2 have correlation less than the average pairwise correlation of the sample (0.93). For only 48% of the cases, the portfolio of mutual funds had better risk-adjusted returns than a randomly selected large-cap mutual fund.

Not only does picking more than a single tactical manager add diversification benefits, it also reduces the pressure of correctly guessing who the next period's best performing tactical manager will be. The more diversified the portfolio is and the less correlated the managers are, the more likely it outperforms a randomly selected manager.

We chose 3 tactical managers in the diversified portfolio to illustrate the point but there is nothing special about that number. Adding an additional tactical fund with low correlation to a pre-existing 100% single-manager portfolio would enhance the overall risk/return trade-off.

SUMMARY

- *Tactical, as an investment approach, has evolved from the fixed asset class silos into a multi-asset 'go-anywhere' approach that may result in better risk-adjusted performance and lower drawdowns, especially during market downturns.*
- *Adding even a small exposure to tactical can significantly improve returns while bringing down the overall portfolio risks as demonstrated by the performance of a 50% stocks/30% bonds/20% tactical portfolio versus 60% stocks/40% bonds.*
- *Due to the heterogeneity among tactical strategies, there are diversification benefits from investing in a portfolio of tactical managers instead of using a single manager in order to get exposure to Tactical.*

60/40 Portfolio: A portfolio comprised of 60% S&P 500 Index and 40% Barclays Capital U.S. Aggregate Bond Index representing a 60% Stock & 40% Bond portfolio.
Barclays Capital U.S. Aggregate Bond Index: The Barclays Capital U.S. Aggregate Bond Index is comprised of approximately 6,000 publicly traded bonds including U.S. Government, mortgage-backed, corporate and Yankee bonds with an average maturity of approximately 10 years.
Beta: A quantitative measure of the volatility of a given portfolio, relative to the S&P 500 Index, computed using monthly returns. Specifically, the performance the portfolio has experienced since the portfolio's inception as the S&P 500 Index moved 1% up or down. A beta above 1 is more volatile than the index, while a beta below 1 is less volatile.
Corporate: An investment in a mutual fund or exchange-traded fund that invests primarily in debt instruments issued by corporations.
Developed Markets: International-DM refers to the MSCI EAFE Index, which is a free-float weighted equity index that covers developed markets in Europe, Australasia and the Far East.
Drawdown: A drawdown is any losing period during an investment record. It is defined as the percent retrenchment from an equity peak to an equity valley. Maximum drawdown is simply the largest percentage drawdown that has occurred since inception, based on monthly returns.
Emerging Markets: An investment in a mutual fund or exchange-traded fund that invests primarily in U.S. dollar-denominated government debt obligations issued by emerging-market countries.
HFRI Hedge Funds Composite: The HFRI Macro (Total) Index is an unmanaged, equal-weighted composite of funds listed in the HFR Database which specialize in macroeconomic focused strategies and meet set requirements for inclusion. HFRI is a registered trademark of Hedge Fund Research, Inc.
High Yield: An investment in a mutual fund or exchange-traded fund that invests primarily in the category of debt instruments which have a higher risk of default and thus pay a higher yield. These debt instruments are rated below a certain level by the major credit rating agencies due and are also known as "junk bonds." (For Moody's rating scale this generally means bonds rated Ba and lower and for Standard & Poor's, bonds rated BB and lower.)
Mid Cap: The stocks of publicly traded companies with market capitalizations between $2 billion and $10 billion are classified as small cap.
S&P 500: The S&P 500 Index is an unmanaged composite of 500 large capitalization companies. S&P 500 is a registered trademark of McGraw-Hill, Inc.
Sharpe Ratio: A measure of risk-to-reward calculated by the difference of the expected return of an investment and a risk-free rate of return (typically a U.S. government bond) divided by the standard deviation of the investment.
Small Cap: The stocks of publicly traded companies with market capitalizations between $300 million and $2 billion are classified as small cap.
Standard Deviation: A statistical measure of the historical volatility of a mutual fund or portfolio, computed using monthly returns since inception and presented as an annualized figure. More generally, a measure of the extent to which numbers are spread around their average.
Tactical Strategies Index: The Tactical Strategies Index is an AUM-weighted index of 32 tactical funds that use exchange traded funds (ETFs) in their portfolio such that each tactical fund's AUM is greater than $100 million. The index is constructed by Astor Research using Morningstar data as of December 31, 2013.
Treasuries: An investment in a mutual fund or exchange-traded fund that invests primarily in debt obligations of the United States government.

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