CAPITAL EFFICIENCY TRUMPS FEES

IN THE SEARCH FOR PORTFOLIO DIVERSIFIERS

This article demonstrates how the capital efficiency available in some alternative asset classes may outweigh the high cost of owning them in a diversified portfolio, even after taking the tax impact into account.

Given the historically remarkable performance of domestic capitalization weighted indexes and 'balanced' portfolios since the Global Financial Crisis, it is not surprising that many investors are eschewing active strategies and global diversification in favor of low-cost index products.

Since most index or smart-beta products have a high degree of correlation to the S&P 500 and balanced portfolios, it makes sense to emphasize lower fees. After all, these products will likely only produce small marginal benefits in terms of portfolio efficiency.

However, it is a potentially costly mistake to extend this sort of thinking to alternative funds.

You see, properly designed and implemented alternative funds are structurally uncorrelated with market cap weighted and smart beta indexes. This means that they can substantially improve returns, reduce volatility, or accomplish both.

This fundamental difference in terms of behavior and portfolio impact requires an extra dimension of analysis.

'Capital Efficiency' addresses this blind spot by measuring the amount of market exposure one can achieve per unit of capital invested. Basically, this measures the 'bang for your buck' received by investing in a strategy.

To illustrate how this works let's consider an example:

THREE ALTERNATIVE FUNDS WALK INTO A BAR

	Market Neutral Equity	Managed Futures	GTAA ETF of ETFs
Expected Sharpe Ratio	1.1	1.1	0.8
Annualized Volatility	7%	12%	8.25%
Expense Ratio	2.24%	2.00%	0.80%
Correlation to 60/40 Portfolio	0.0	0.0	0.5

But which of these funds, after-fees, might provide the greatest positive impact on the portfolio that our investor already holds?

For our analysis, we will assume that our 60/40 portfolio (as outlined above) has an expected after-tax annualized return of 4% with an average annualized volatility of 12%[1].

We've also assumed that our 60/40 portfolio has ZERO fees to reflect the nearly costless options available to investors at a variety of dealers and on many core ETFs.

[1] For more on how we crafted our assumptions and the analysis below, please read the original Capital Efficiency post on our blog by visiting the following link: https://investresolve.com/blog/capital-efficiency-trumps-fees

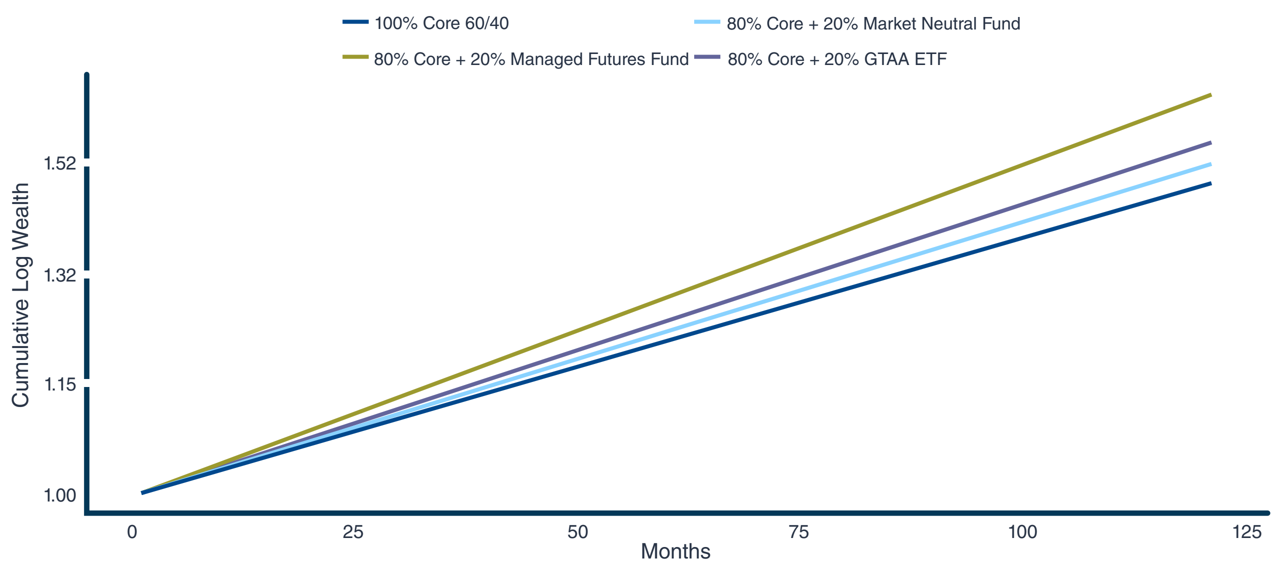
Table 1. and Figure 1. immediately below shows the impact of adding a 20% allocation of of each of our three alternative funds to the core 60/40 portfolio.

Table 1. Hypothetical Impact of Adding a 20% Alternative Fund Allocation to a Core 60/40 Allocation: Summary Statistics

	100% Core 60/40	80% Core + 20% Market Neutral Fund	80% Core + 20% Managed Futures Fund	GTAA ETF
Weighted Average Fee	0%	0.45%	0.40%	0.16%
Expected **Net After-Tax** Portfolio Return	4%	4.26%	5.17%	4.54%
Expected Portfolio Volatility	12%	9.7%	9.9%	10.5%
Expected Portfolio **Net After-Tax** Sharpe Ratio	0.17	0.23	0.32	0.24
$1 Grows To	1.48	1.52	1.66	1.56

Source: Calculations by ReSolve Asset Management. For illustrative purposes only.

Figure 1. Impact of Adding a 20% Alternative Fund Allocation to a Core 60/40 Allocation: Hypothetical Growth



Source: Calculations by ReSolve Asset Management. For illustrative purposes only.

As you can see from Table 1. the 20% allocation to the alternative mutual funds results in higher fees for the portfolio (0.45% and 0.40% for the equity market neutral and managed futures funds respectively) than the lower cost GTAA ETF at a weighted cost of 0.16%.

However, even after overcoming the higher fees, the managed futures fund increased expected wealth creation by (66%) / (48%) = 1.37 times the plain vanilla 60/40 portfolio on its own.

This compares favorably to improvements of just 1.08 times and 1.17 times for the market neutral fund and GTAA ETF, respectively.

The key point is this: the improvement in capital efficiency from managed futures overwhelms ALL other considerations, including fees.

Additionally, and again after fees and taxes, the allocation to managed futures lowers the expected volatility of the core 60/40 portfolio from 12% to 9.9% (an improvement of nearly 18%) while the Sharpe ratio of the portfolio (or the bang for your buck received) might improve by 1.88 times; a larger boost than what could be achieved from the other funds.

TAKE-AWAYS

The evaluation of alternative funds introduces an extra dimension of analysis into the equation – capital efficiency - that investors don't think about with traditional equity funds.

Capital efficiency measures the amount of market exposure one is able to achieve per unit of capital invested. In other words, it quantifies "bang per buck" of an investment.

All things equal, it is often more advantageous to a portfolio's performance, from an after-fee and after-tax perspective, to allocate capital within the alternative sleeve to strategies with low correlation and high target volatility, especially if the strategy trades futures. This is true even if these funds have higher fees and less favorable tax treatment.

Focusing exclusively on fees and taxes misses the forest for the trees.