



Higher Returns & Lower Costs Using the 55ip Lower-Fee Overlay

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The Rationale for Enhancing Performance with the 55ip Lower-Fee Overlay

An important driver of the index revolution has been the low fees. Implicitly, the increasing popularity of ETFs and other index-based instruments is based on the belief that they provide a cost-efficient alternative to active but underperforming mutual funds.

Indeed, investors can enhance their portfolio returns by shifting from such high-fee mutual funds to low-fee ETFs providing similar exposure. The key to this strategy is to replace mutual funds with lower-fee alternatives without significant distortions to expected returns before fees. This should be possible, for instance, for funds that hug their passive benchmark and don't take material active risk. There are many reasons that range from career risks that portfolio managers face, incentive structures that don't directly reward performance and portfolios that need to absorb large volumes that can generate such benchmark hugging behavior. Such funds can often be replaced effectively with one or a combination of lower-cost ETFs. The competition in index offerings often makes such enhancements possible even for higher cost ETFs – that can be replaced with lower cost ETFs.

Clients often leave their portfolios sub-optimized for fees. At one extreme, some simply ignore how significantly they are eroding their returns. At the same time others may be far too focused on their expense ratios, ignoring the quality of their overall investments.

Overview of the Lower-Fee Overlay

The 55ip lower-fee overlay aims to replace high cost funds with lower-cost ETFs. Each fund is replaced with either a single ETF, or a portfolio of ETFs to replicate closely the gross return profile of the original fund, while reducing management fees.

There is a large variation in the tracking error of the ETF replacements relative to the original fund. Funds that are index or index like are relatively easy to replace with ETFs, while truly actively managed funds may not have a suitable substitute portfolio.

To summarize empirical performance of the 55ip lower-fee overlay, we use the 55ip replication technology and focus on mutual funds. We construct replacements for mutual funds as of March 2016 and track the properties of the funds and their replacement over the subsequent year. In our analysis, we start with the universe of 5,195 US mutual funds. We remove 434 funds with very low levels of assets under management (under \$25M). These small funds account for less than 0.001% of the total AUM of the funds we consider.

For 2746 among the remaining 4756 funds, we are able to construct a low-fee ETF replacement basket with the annual tracking error of less than 3%. Roughly, these are the funds that we

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consider for replacement by the lower-fee ETF alternatives. These funds charge a median management fee close to 1%, and account for over 67% of AUM of all the funds in our universe.

Out of Sample Performance

The following table summarizes the effect of the replacement of mutual funds with lower-fee ETF based portfolios. For the median fund, an investor can reduce management fees by 0.64%. This is a significant reduction economically, given that the median fund in this sample charges fees of 0.97%. Replacing mutual funds with ETFs generates the median tracking error of 1.82%.

But fee differences are only one contributor to return differentials. Does the fee decrease translate into higher performance in the future?

We track the funds and their replacements over a year following the replacement and summarize the properties of the return difference between the replacement ETF basket and the original fund in the last column of the table. For a median case, replacing the fund with a lower-fee ETF alternative results in 0.41% higher returns over the following year.

	Fee Reduction	Tracking Error	Future Return Difference
Mean	0.69%	1.76%	0.60%
Median	0.64%	1.82%	0.41%

While encouraging, we also verify that the return enhancement out of sample is indeed related to fees.

We regress the out-of-sample return difference on the fee reduction. We find the regression slope to be 1.05, and highly statistically significant, meaning that fee reduction is associated with virtually identical return improvement over the following year. This strong statistical relation supports the idea that reducing management fees helps increase investor returns going forward.

Conclusion

Excessive management fees can significantly reduce portfolio value over long investment horizons. 55ip replication technology can indeed be used to provide lower costs portfolios for clients with similar exposures. Such portfolios are also likely, as suggested by the reported evidence, to produce better returns. In our out of sample analysis, replacing high-fee mutual funds with lower-fee ETFs results in median performance improvement of 0.4% over a one-year period. This can have a meaningful impact. For a client with \$10mm in initial portfolio value, at the end of 10 years the savings can be approximately \$700K or 7% of their portfolio value.

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