The Problem With Paying More For Your Actively Managed Mutual Fund *

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ABSTRACT

How should you allocate your bonds/stocks/REITs between taxable and tax-deferred retirement accounts? The conventional wisdom says that bonds should be allocated to tax-deferred accounts because of their tax inefficiencies. Yet, with yields hovering around 2% this may no longer be the case. In fact, investigating the tax sheltering benefits present in various mutual fund types highlights that small caps and actively managed REITs enjoy the greatest benefits when shielded from taxes in a retirement account.

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I Introduction

Most investors assume that if a mutual fund manager is charging them a high fee to manage their portfolio then they must have some real talent for picking stocks (in order to justify such high costs).

Although this is a very logical line of thinking, it really isn't supported in the data. In fact, actively managed mutual funds that have high expense ratios (yearly fees as a percent of AUM) are associated with some of the worst performing and poorly managed funds, especially when considering mutual funds that focus on US equities.

Investigating all mutual funds that trade in the US, and looking at the difference in the average return to high fee active mutual funds (those with an expense ratio over 1.5%) minus that of low fee active funds (all funds with expense ratios under this level), paints a very negative picture of the high fee options.

Consider the performance difference between high fee and low fee actively managed funds focusing on large cap US equities. Over the past 10 years, the average high fee option has delivered an average annual return of 10.61%, while the low fee option has averaged 12.26%. This yields an annual difference of 1.65 percentage points, which an investor can easily access by just avoiding the high fee mutual fund option. Given that it may be a concern that a few really bad apples are dragging down these results for high fee funds, it is also important to note the median return in each group. The median shows us how the true middle of the pack mutual fund performed for the high fee and low fee groups. Consider again the difference between high fee and low fee mutual funds focusing on large cap US equities. Over the past 10 years, the median high fee option delivered an annual return of 10.80%, while the median low fee option delivered 12.36%. This yields a similar result as the above average difference, where the difference in medians is 1.56 percentage points. This and all other similar results with medians suggest that it isn't a few extreme bad outliers driving the results and in fact the whole group of high fee MFs that are performing poorly. And the results get even worse when we look at even higher cost mutual funds. Take for instance the example of large cap US equities - when we look at funds that charge over 2% per year in annual fees, we see the average 10 year return fall an extra 60 basis points all the way down to 10.01%.

Interestingly enough, even though there has been a big movement over the past 20 years by mutual fund providers to offer low fee options to their investors, 21% of all US large cap funds still have expense ratios over this 1.5% expense ratio threshold.

In addition to poor performance, these high fee funds are also associated with elevated levels of risk and excessive portfolio turnover. The average high fee US large cap mutual fund had a volatility of 11.54% over the past two years, while the low fee option came in with an average volatility of 10.23% over the same time period. Equally as troublesome is that the asset turnover at these high fee funds is nearly double that of the low fee funds (35% v 67%). This is perhaps a sign that these managers attempt to trade more to justify the fee they charge, but from the investor's point of view this only leads to a higher tax bill and an even lower post-tax return.

Finally, according to Morningstar Stewardship ratings these high fee funds are also associated with poor governance practices – regulatory issues, poor managerial incentives, and other bad governance practices like hidden fees (front-end fees, back-end fees, 12b-1 fees). Such high fee funds have a 30% greater chance of receiving a failing governance rating from Morningstar.

The single exception to the vast underperformance of high fee mutual funds may be fixed income mutual funds. While high fee fixed income funds still on average underperform their low fee counterparts by 0.18 percentage points (based on the 10 year horizon), there are a good number of these high fee funds that outperform the low fee options (and consistently over time). It appears that there may be a few bond managers out there that can justify their high fees by backing them up with performance - yet still on aggregate they lag behind.

So if you do believe in active management it still may be best to avoid those high fee options, especially when it comes to actively managed equity funds.

This paper proceeds as follows. Section II highlights the data construction and empirical analysis. Section III concludes the paper.

II Data Construction and Empirical Analysis

In this section, I first detail the construction of the dataset used in this investigation and provide summary statistics. Following this, I summarize the empirical methodology and results.

A Construction of the Data

IMPORTANT TO NOTE that these reuslt hold even when putting fees back in

The dataset used in the proceeding analysis was produced via the Morningstar Direct database. From the Morningstar platform, information on all equity/fixed income focused mutual funds trading in the U.S. (U.S. dollar based mutual funds) was pulled. This initial list of mutual funds included all open-end funds (currently active or defunct) with assets under management listed as non-zero at anytime from 1988 and forward.

From Morningstar information on each fund's objective was pulled, as well as, information on its AUM, monthly returns, and volatility. To categorize each fund by its style, funds were partitioned into groups that focused on small cap stocks, large cap stocks, growth, value stocks, international equity, fixed income (excluding municipal bond mutual funds), and REITs. Each of these fund types are again partitioned by actively managed funds and those that are passive (index).

B Empirical Analysis

Next, with these partitions define, I look at returns to each fund over 5, 10, and 15 year horizons. I pulled two sets of returns over these horizons: the annualized return for each fund before taxes, and the return to a fund after taxes on distributions (also called 'post-tax return, pre-liquidation' in Morningstar). The difference between these two numbers defines the benefits of tax sheltering. These results are presented below and all differences in means are statistically significant at the 1% level.

It is important to note that this 'post-tax return, pre-liquidation' is not the post-tax and post-redemption return. A post-tax and post-redemption return would reflect capital gains taxes which both a regular brokerage account and a tax shielded account will be subject to eventually. For this reason, the difference between the pre-tax return and the 'post-tax return, pre-liquidation' is the prefferred measure to capture the benefit of a retirement account.

Below in the first chart is the annualized return difference between average total return to a particular mutual fund and the average return post-taxes on distributions for active mutual funds (sorted by 10yr horizon).

Below in the second chart is the annualized return difference between average total return to a particular mutual fund and the average return post-taxes on distributions for index mutual funds (sorted by 10yr horizon):

Figure 2: Annualized Return Difference between pre-tax and post-taxes on distributions for various mutual funds

Mutual Fund Type	Fees	10 year Annualized Return	Extra Annualized Return by going with the low cost MF (%)	Turnover (%)
FIXED INCOME	Low Fee	4.12027	0.18253	79.05
	High Fee	3.93774		70.55
REITS	Low Fee	10.796985	1.138975	45.21
	High Fee	9.65801		59.38
US Large Cap	Low Fee	12.25848	1.6531	35.37
	High Fee	10.60538		67.32
US Small Cap	Low Fee	12.63351	0.727715	37.55
	High Fee	11.905795		60.59
International Equity	Low Fee	9.77335	1.10186	43.81
	High Fee	8.67149		43.44

Figure 1: Annualized Return Difference between pre-tax and post-taxes on distributions for various mutual funds

III Conclusion

For older investors considering which allocations to overweight and underweight in their retirement accounts, the advice most frequently given by financial advisers for years has been to favor the bonds.

This was good advice once. But not any longer – in the early 1980s, bonds or fixed-income mutual funds held the advantage, because yields on those types of funds then ranged from 10% to 15%. A bond investor thus could expect to earn around \$125 on a \$1,000 investment per year as interest income, and that income would be tax-free if held in a tax-advantaged account. With yields now sitting around 2% to 3%, these accounts no longer offer the same advantage to bond investors.

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Examining this difference in returns for all U.S. mutual funds over the past 10 years shows, first off, that actively managed funds will benefit from being in a tax-sheltered account much more than an index fund will, a fact that holds for actively managed funds across all types of asset classes.

Actively managed funds, of course, charge higher expenses and fees than index funds. Thus, many investors prefer to use index funds to keep their investment costs down. For investors who prefer index funds, the asset class that gets the most benefit from being held in a tax-deferred (or tax-exempt) account over the past 10 years is small-cap index funds. By holding small-cap index funds in a tax-sheltered account, an investor can protect an extra 1.36% a year from taxes.

For investors who prefer actively managed funds, the best option may be to overweight real-estate investment trusts in your tax-exempt or tax-deferred retirement accounts. The annual return for a REIT held in such an account is 1.73 percentage points higher than the return for the same REIT held in a taxable account (according to a 10-year horizon). Interestingly, fixed-income mutual funds (excluding muni-focused mutual funds) hold only a 1.37-point advantage. This puts the fixed-income funds at the middle of the pack with respect to the other choices and the benefits that they accrue in a tax-exempt account.

With the Federal Reserve keeping short term interest rates down around 2% it may be a long time before bond investors see yields up around those in the 1980s. And because of this it may be a long time before investors see the tax sheltering benefits for bond mutual funds that they once saw. Allocating one's tax inefficient actively managed REITs or small cap stocks might just be the more efficient route for investors deciding what to hold in their retirement accounts.

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