The True Cost of Investing

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Do you know how much your investment strategy is costing you? Most investors don't. And even fewer know what their strategy *should* be costing them. We've all heard the saying that it takes money to make money. True enough, but the investment industry has exploited that truism so considerably investors are paying far too much for the services they receive. Investors would do themselves a huge favor if they took a closer look at what their investment strategy truly costs and evaluated whether that cost is surpassed by the value they receive.

Let's begin by summarizing the main categories of costs for a typical investment strategy. To simplify, I'll consider a taxable strategy comprised only of stocks and bonds – no private equity, hedge funds, annuities, or anything else often found in the portfolio of your typical high-net-worth investor (I'll save my thoughts on those strategies for a later shortpaper!). Costs generally fall into four categories: (1) advisory fees, (2) expense ratios of the underlying strategies (mutual funds, closed-end funds, exchange traded funds, etc.), (3) trading costs, and (4) taxes. While most people consider the first category, they tend to forget about the other three. Yet only by account for *all four* categories can you accurately evaluate your investment strategy or compare it to others. Here is a quick explanation of each cost category:

1. **Advisory fees:** These are the fees you pay directly to the firm overseeing your investment portfolio. These fees compensate your advisory firm for the investment advice they provide and for constructing and managing a diversified portfolio strategy designed to meet your investment goals, at least in theory.
2. **Expense ratios of the underlying strategies:** Most times the firm overseeing your portfolio outsources some or all of the pieces of the strategy to other firms with expertise in a particular facet of the capital markets. Those third-party money managers have their own costs to account for, which they pass on to you in what is called the expense ratio. A mutual fund, for example, combines the cost of fund management and other operational charges and divides that sum by the total assets in the fund. The result is the fund's "expense ratio", which it then publishes in its prospectus. A similar number can be found for any commingled investment strategy in which you may be invested.
3. **Trading costs:** These are the costs associated with actually executing an investment strategy that aren't accounted for in either the advisory fee or the expense ratio of a strategy. These include trading commissions, the difference between the bid and ask price of a security (the spread), and the price impact of buying or selling a security. These costs are primarily a function of the type of security being traded, the frequency of trading within a particular strategy, and the dollar amount being traded each time.

4. **Taxes:** Every investment strategy will have some kind of tax "footprint". Certain kinds of investments are more tax-efficient than others, and it is important to find the more efficient ones without letting tax considerations drive the strategy. While the tax distinctions between strategies may be subtle, the effect could be considerable. In the end, a penny saved is a penny earned, so minimizing what is lost to the government directly contributes to the overall return.

I'll explain this concept in more detail below, but the **cumulative effect of each of these costs can detract more than 4% from your investment returns each and every year**. If markets perform as many expect over the next few years, you may find your investment portfolio underperforming inflation (if stocks return 8% and bonds 3%, a 60/40 stock and bond allocation will return only 6%, which quickly becomes 2% after deducting 4% in costs; inflation could very likely increase to 3-4% or higher in the next few years, resulting in a net real loss for the portfolio). Trailing inflation by 1% or more obviously won't help us reach our investment goals. So, while it is crucial to make good investment decisions, it is just as important to ensure we are keeping the costs of any investment strategy as low as possible.

While much of what happens in the markets is outside an investors' control, the cost of a portfolio strategy is not. Advisory fees are a function of direct choices investors make about who they have overseeing their portfolio; and expense ratios, trading costs, and taxes are a function of how a portfolio strategy is executed (they are also a function of the portfolio manager, but cost controls can often be instituted without having to change managers). Let's look at each of these costs in more detail to get a sense of how we might control them within an investment strategy.

Advisory Fees

The easiest way to control this cost is to invest the portfolio yourself and forego professional management. However, for most investors this is not a realistic solution. First of all, the investment industry is incredibly complex and investing itself even more so. The study of markets and the science and art of investing is a full-time job and to do it properly takes years of experience to amass the necessary amount of knowledge and perspective. Mistakes can be very costly, and so it makes sense to pay a fee to those who have learned the necessary lessons already and can help you avoid those mistakes. Additionally, investment discipline is crucial, and when the markets are especially volatile and fear is running high, having a professional to keep you from doing exactly the wrong thing with your investments at exactly the wrong time can more than make up for their fee. Finally, busy professionals value having a knowledgeable advisor overseeing their investment assets so they can concentrate on their own areas of expertise and those things that allowed them to earn their wealth in the first place. And for those who are retired and can afford professional management, they would rather focus on their hobbies and leisure pursuits than worry about how to position their investments. So the case for professional management is not hard to make, but what is a fair price for that service? Making a case for the fees currently being charged across the industry is far more difficult in my opinion.

Those who are familiar with Frontier Advisors are well aware that we believe the average investor pays far too much in advisory fees. While it is difficult to get an exact idea of an industry average for advisory fees (to our knowledge, no significant study on this issue is

available, and many firms negotiate fees with their clients so it is impossible to get enough transparency on fees to know for sure), the number most often heard is between 1% and 1.5% for a $2-3 million portfolio. I have verified this number by sampling the fee structures of asset managers around the country, and on certain platforms at well-known firms this number goes much higher. When you consider the level of advice and portfolio construction most investors receive at your typical investment advisory firm, it quickly becomes apparent that those firms are overcharging for the "expertise" they bring to a relationship. Many firms are nothing more than sales and marketing organizations who cobble together overly costly and complicated portfolios for their clients that achieve neither adequate diversification nor risk-adjusted growth, and do so in a way that is so opaque that it is difficult to know precisely what one owns or where the risks are. That fat advisory fee ends up paying for opulent offices, lofty salaries, sales and marketing staffs (including the "financial advisors" themselves), selling agreements with third-party managers and a variety of other operating costs that do not end up offering any value to an individual client account.

Clients rightfully expect that their fee is paying for a level of expertise that offers a benefit to the long-term performance of their account, but an objective measure of that performance often shows no such thing. There are numerous studies[1] that conclude that most professionally managed portfolios offer no outperformance relative to the broad market indices, and after costs they actually lag those indices. Investors should require an objective measure of their investment performance (after all costs discussed herein) and ask their advisor to justify their fee in light of that. If they have added value, this discussion should be very satisfying for both the client and the advisor, but explanations are required if one finds that the advisor's decisions and advice have *not* added value.

Practicing what we preach, we set our fee at 0.50% of assets. Certainly more reasonable relative to the rest of the industry and a fee level that we believe we can more than earn for each relationship. The important thing to understand, however, is that we don't charge less because we're looking to be the low-cost leader; we're charging less because it would be inappropriate to charge more. Our firm's business model removes the excesses of the typical investment firm and returns those costs to the client. By simply focusing on advising clients and managing investment portfolios, we are able to run a very lean and efficient operation that is every bit as robust as any out there. Investors are starting to notice the inefficiencies and high cost structures of the average firm, and more importantly understanding the lack of value in any of it. I hope this trend continues, but fear that as markets improve attention will once again veer away from the considerably important cost issue.

Expense Ratios

With so many ways to buy into the various markets relevant to a well-diversified portfolio, investors have no excuse for overpaying for market exposure. Mutual funds are far and away the most widely used vehicle for investing, and average expense ratios for actively

[1] One such study is "Luck versus Skill in the Cross-Section of Mutual Fund Returns," by Professors Eugene Fama and Kenneth French. A condensed version can be found in the Fama/French Forum at www.dimensional.com, and a full copy can be found in the research section of our website at www.frontieradvisorsllc.com.

managed mutual funds can vary widely. According to Morningstar data, they range from 0.98% for taxable bonds to 1.78% for emerging markets equities. These funds are called "active" strategies because the portfolio managers overseeing them are making active decisions to try to outperform a relevant market benchmark. For example, the portfolio manager for a mutual fund investing in the stocks of large U.S. companies would pick a basket of stocks that he or she thinks will outperform the S&P 500, a common benchmark for large company US stocks. The troubling thing is, very few actively managed mutual funds are able to outperform a representative market benchmark after fees over time, and even fewer if accounting for trading costs and taxes. And those that do outperform find it difficult to prove they did so because of anything other than luck, meaning the chances that they will continue to outperform are small. So investors continue to pay these managers over 1% on average to underperform their market, and 1% or more to their investment advisor to allocate their portfolios across a group of these managers!

To us a better way to do things is to acknowledge the futility of active management, and build client portfolios in a more progressive way. If the vast majority of portfolio managers are unable to outperform their market after fees, advisors should stop the Sisyphean task of looking for those who will and return the cost of that brand of management to their clients. And instead of spending time researching managers, they can use that precious resource researching markets and issues concerning portfolio construction that actually have a chance of adding value to their clients' portfolios over time.

At Frontier we do just that and look to passive strategies to get exposure to various global markets in a very cost effective way. Passive strategies are portfolios that are designed to mimic the performance of the index/benchmark it tracks. So, from the preceding example, an S&P 500 index strategy should offer investors the return of the S&P 500 index minus the costs of the strategy, which tend to be extremely reasonable. In fact, the S&P strategy we use in our clients' portfolios only costs 0.09%, far lower than the average large company U.S. mutual fund at 1.24%. By focusing on the strategic investment decisions for our clients and embracing low-cost passive strategies for execution, we are able to build globally diversified portfolios across multiple asset classes for 0.20% or less, depending on how much we're putting in stocks versus bonds. Comparing our strategy to a similarly allocated strategy using actively managed mutual funds that would cost, on average, 1.35%, we are able to return 1.15% or more in fees to our clients just from the difference in expense ratios.

Trading Costs

As mentioned previously, trading costs are a function of the turnover in a strategy and the subsequent execution costs. If there is a lot of turnover (lots of buying and selling of individual positions within the strategy), trading costs will be high. If the execution costs (the actual costs of executing each trade, which include commissions, the spread between the bid and ask price, and the price impact of the trade) are high, then the trading costs will again be high. High turnover coupled with high execution costs is the worst case scenario. Accurately and

completely accounting for trading costs is incredibly difficult, but a 2007 study[2] concluded that trading in actively managed mutual funds reduces performance by 0.60% per year, on average. That is yet another hurdle that must be overcome by active managers via savvy security selection if a strategy is going to outperform a passive index strategy that does very little trading. Trading costs within passively managed strategies are estimated to detract only 3 basis points (0.03%) or less, an amount that is basically inconsequential.

Since trading costs are not included in the expense ratio and are difficult to calculate, investors should carefully consider the attributes of a strategy that imply high trading costs. Once again, high turnover is an obvious signal. Also, strategies that include fairly illiquid securities (smaller companies, emerging markets, niche security types such as certain kinds of convertible and/or high yield bonds) should be expected to have higher trading costs due to their relative illiquidity leading to wider spreads. Finally, the size of a strategy matters since each trade will have more dollars/shares behind it. More sizeable trades have a greater chance of pushing the price of the security up (buying) or down (selling) so that the price of the final trade may be quite different than it was when the decision to trade was made. The more you can understand the trading hurdles of a strategy, the better you will be able to evaluate the likelihood of that strategy meeting your long term performance expectations.

While passive strategies help investors reduce turnover and thus trading costs, passively managed exchange traded funds[3] (ETFs) can take cost savings to yet another level. ETFs have a unique share creation and redemption process that can further lower trading costs for the fund because, instead of going into the market anytime the index constituents change or investors buy or sell shares, the fund exchanges cash for shares with an Authorized Participant (AP - large institutional investors permitted to play a role in the ETF creation/redemption process). In fact, ETFs actually charge a fee to APs to compensate the fund for brokerage and market impact costs, further benefiting investors in the ETF. So for ETF investors, the main trading cost ends up coming from the commissions paid at the investor's end when transacting in the ETF itself (ETFs trade like stocks, so investors will pay commissions, spread costs, and market impact costs when executing), which is very controllable and for long term investors tends to be very inexpensive. At Frontier, we estimate our trading costs for a $3 million account to be around 1 basis point (0.01%). Trading is a necessary evil for investors, but the associated costs are far more controllable than most realize.

Taxes

Another necessary evil for investors is taxes. And, like trading costs, taxes can be managed in such a way that their impact is minimized if you know what you are doing. Of course, there are some taxable artifacts of the investment process that are not only good, but often times sought out by investors. Dividend distributions to shareholders of common stock and interest payments to bondholders are two such examples. Therefore, each equity and fixed

[2] Edelen, Roger M., Richard Evans and Gregory Kadlec, "Scale effects in mutual fund performance: The role of trading costs." Working paper, current version: March 17, 2007. Copy available in the research section of our website at www.frontieradvisorsllc.com, or at http://ssrn.com/abstract=951367.

[3] For a complete explanation of ETFs, read "Exchange-Traded Funds: Challenging the Dominance of Mutual Funds?" by Sunil Rongala of Deloitte Research, 2009. The report is available at www.deloitte.com or in the research section of www.frontieradvisorsllc.com.

income strategy is going to have a tax footprint of some kind, but our job as investors is to minimize this footprint in a way that is concordant with our overall portfolio strategy and investment philosophy. Most asset managers undertake the obvious forms of tax management, which amount to various year-end tax loss harvesting strategies where they sell those securities trading at a loss to offset capital gains taken throughout the year, hoping they can redistribute the proceeds of those sales wisely going forward. This "harvesting" occurs, or should occur, within investment accounts of all types and if your manager is trumpeting this as a differentiating factor for their firm they are being disingenuous. It should be expected by all investment managers.

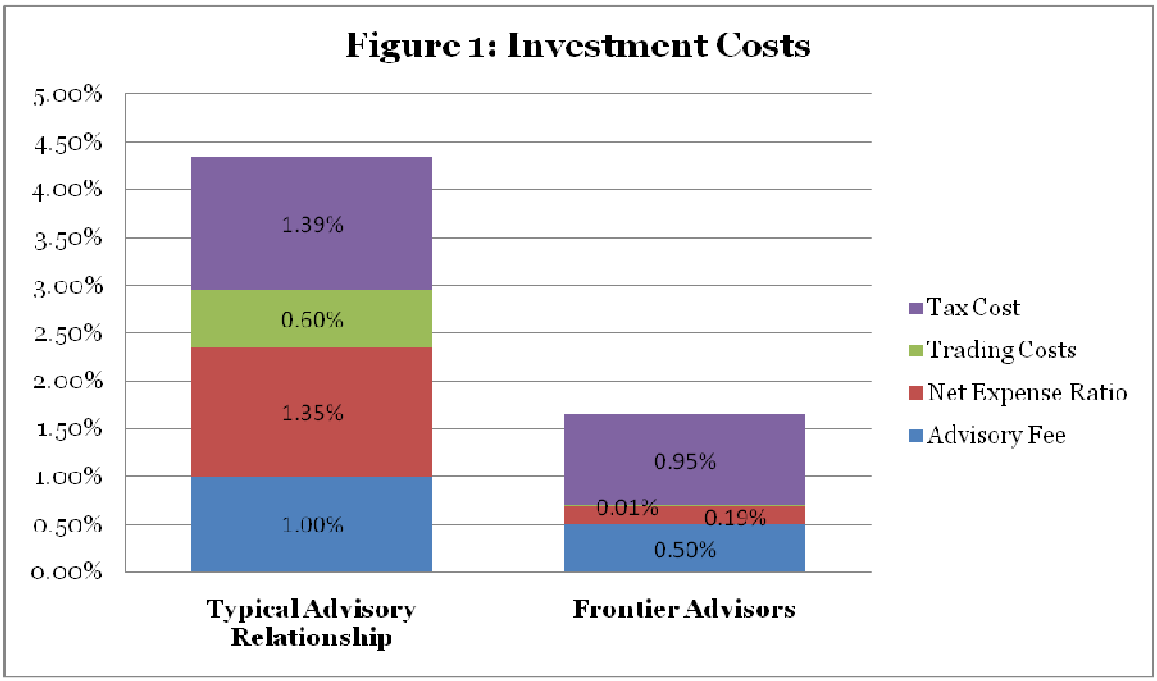
Often times tax loss harvesting is simply not enough to eliminate the realized capital gains in the portfolio. Many investors have experienced the distasteful "capital gains distribution" of mutual funds. This is a distribution that comes at the end of the year and is a reflection of the net capital gains the mutual fund has realized during the year that must be passed along to investors as an IRS requirement. While capital gains usually means you made money (sold something for more than you bought it for), that is not necessarily so in mutual funds since, when you buy a share of a mutual fund, you buy into the historical holdings of that fund and also expose yourself to other fundholders' purchases and redemptions. For example, were you to buy into a fund on November 1 and the fund's price subsequently goes down by the end of the year, you may still get a year-end capital gains distribution from the fund because of what occurred in the fund from January-October. So even though you only held the fund for two months, you still have to pay taxes on things that happened in the fund before you even bought it. And there are many scenarios where a fund might distribute capital gains in a losing year for all investors. This particular characteristic of mutual funds is clearly not a good thing for investors but it goes with the territory. By our calculations, the average tax cost of a portfolio invested 70% in actively managed stock mutual funds and 30% in active bond mutual funds, based on Morningstar data (3-year tax cost ratio) as of December 31, 2009, is 1.39%, a good portion of which is a function of capital gains and not dividends/interest.

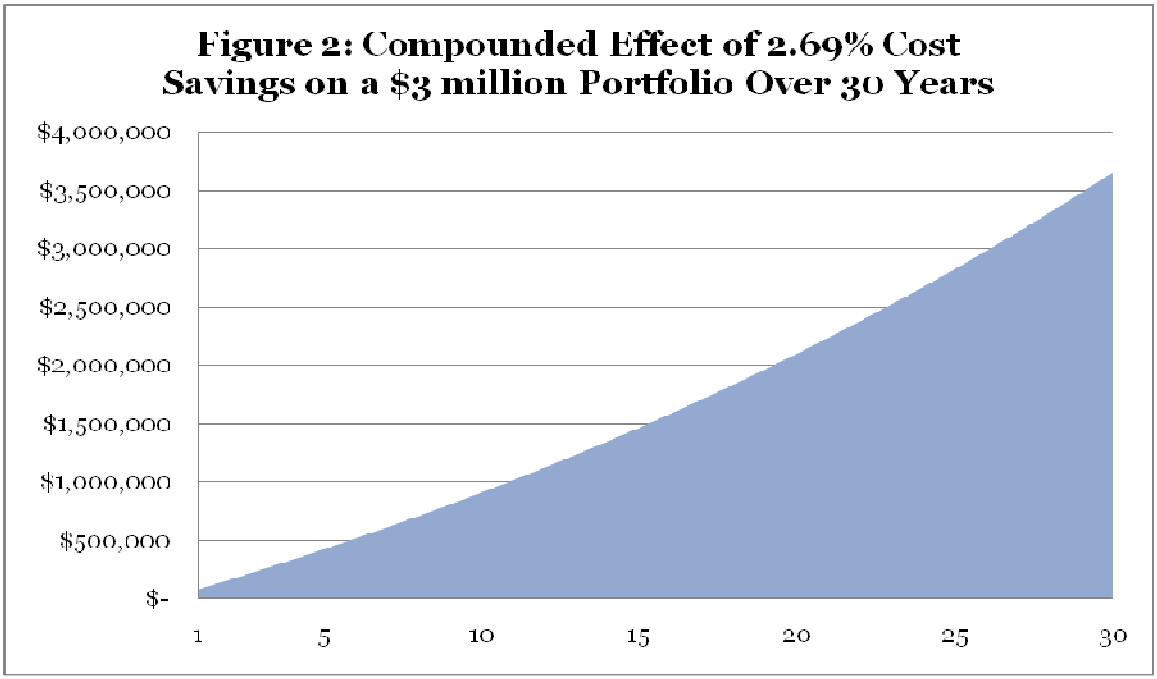
There is, of course, a better way. One way is to simply buy strategies with very low turnover, which by definition should have fewer realized capital gains because of less trading. Passive strategies and some active strategies offer this low-turnover attribute. Unfortunately, a certain amount of trading is unavoidable for the managers of mutual funds because they must often meet redemption requests by liquidating holdings whether they want to or not, and that forces capital gains to be realized and therefore passed along to remaining shareholders.

Passive ETF strategies offer a solution to both problems. Because of their passive construction, they are naturally low turnover. And, because of the same creation/redemption process mentioned earlier, ETFs are able to defray most, if not all, of their capital gains each year. In effect, they pass capital gains on to the APs by exchanging the lowest basis positions during the redemption process. Of course, investors will need to pay any capital gains earned when they sell their ETF shares and any taxes due on dividends or interest income from their ETF holdings during a given year, but they will not have to pay for gains realized by activities in which they did not themselves engage, placing far more control over tax costs in the hands of the investor. The effect is that the investor's tax cost is reduced from 1.39% to approximately 0.95% for a similarly allocated portfolio of passively managed ETFs. And that tax cost is due to the things that long-term investors expect to pay taxes on – dividends and interest.

Summary

By paying attention to details surrounding the various costs of an investment strategy, investors can considerably reduce the price of their investment strategy. This difference will have a dramatic effect on long-term wealth, and is independent of the markets. I've summarized the costs of a typical managed money relationship (70% stocks/30% bonds) and a comparative strategy at Frontier Advisors in Figure 1 – we have been able to reduce the average cost by 2.69%. The compounded effect of that cost difference over many years is shown in Figure 2.





The graphical depictions of these costs is dramatic. Over thirty years, a 2.69% cost savings on a $3 million portfolio compounds into more than $3.65 million! Wouldn't you rather keep that money for yourself rather than give it away to others unnecessarily? Forgetting about dollar values and thinking about this cost disparity in a different way, the strategy composed of actively managed mutual funds would need to outperform a similarly allocated ETF strategy by 2.69% each year just to keep pace. That is a tremendous hurdle for any portfolio manager to clear in a given year, let alone every year in perpetuity.

Investing involves a daunting array of unknowns. A successful investment strategy requires that one controls the controllable and then makes good, educated, and informed decisions about the rest. Costs are largely under the control of the investor and therefore require significant attention by those concerned with maximizing the long-term performance of their portfolios. One cannot avoid costs altogether when investing, but it does not make sense to simply let hard-earned assets leak through "cost holes" in an investment strategy due to inattention or ignorance.

For more elaboration on anything in this or any other Frontier Advisors shortpaper, please contact us at info@frontieradvisorsllc.com.