

## **Your Mutual Funds Are KILLING Your Returns!**

### ***The Hidden Cost Burden of Mutual Funds***

*An eBook on avoiding high fee structure investments to maximize total returns*

Mutual funds have long been a cornerstone of the personal investor's portfolio. While they offer many advantages, such vehicles have formidable fee structures that can hurt investors by eroding gains and causing funds to underperform.

A comprehensive 2007 study by Edelen, Evans, and Kadlec estimated that the average mutual fund had an expense ratio of 1.21% and trading costs of 1.44% (1). In 2004, Vanguard Group founder John Bogle estimated mutual fund costs ranged from 2.5% - 3%. *Forbes* puts the after-tax total cost of mutual fund fees at about 4.17% (3).

We believe that passive, low cost ETFs provide a more investor-friendly alternative to mutual funds by providing lower overall cost and the *potential* for higher overall returns. This report is designed to help investors understand the hidden costs of mutual funds and how they can adversely impact total returns over time by examining data from several large, well known fund families (9).

We will first examine the hidden costs of mutual funds to gain a better understanding of what investors are actually paying for – sometimes without their knowledge. Then, we will briefly visit the active vs. passive investment strategy debate. Finally, we will look at alternatives that offer lower expenses and higher returns than comparable mutual funds.

The mutual fund costs we will consider are:

1. Expense ratio (and embedded 12b-1 fee)
2. Loads
3. Transaction costs
4. Cash drag
5. Taxes
6. Advisor fees

All mutual funds have an **expense ratio**, which is published in the prospectus. The expense ratio generates money to pay the fund's salaries, compliance expenses, legal expenses, travel, et cetera. Some funds also charge a "**12b-1 fee**," which is used to market the fund. This fee is controversial because investors, in effect, subsidize the fund's advertising at a cost to their total return.

Investors may also pay a one-time sales commission or "**load**" for buying shares of a mutual fund. Loads may be front end or back end -- i.e. paid at time of purchase or when they leave the fund. Both up-front and back-end load charges detract from an investor's overall performance as those fees either come out of their initial investment or from their gains at the time they exit the fund.

### **Various Transaction Costs**

Transaction costs are incurred when a mutual fund trades shares of an underlying stock. As a group, "transaction costs" include brokerage commissions, market impact costs, spread costs and soft dollar costs. Such expenses are not easy for investors to see.

### **Brokerage Commissions**

Brokerage commissions are the fees a fund must pay to its brokers for executing its trades. Commissions for each fund can be found in the Statement of Additional Information (SAI), usually in the portfolio transactions section. However, current regulations do not require the SAI to be distributed to investors.

### **Market Impact Cost**

Market impact costs stem from the losses per trade when a fund buys or sells large numbers of shares in a particular stock - while at the same time negatively impacting the price of the stock. For example, when a fund buys 1,000,000 shares XYZ Company, the sheer size of the purchase can cause the “price paid” for those shares to rise during the transaction, hence increasing the cost basis of the position.

### **Spread Cost**

The spread is the difference between the price at which the fund buys a stock and its cost to re-sell those shares. Spread cost can also be referred to as a “liquidity” cost. The less “liquid” shares are of a particular stock being sold by a fund, the higher the cost to find a buyer may be – a cost that will ultimately be reflected in the funds performance. On top of spread cost, mutual funds incur other “frictional costs” when trading – employee time, administrative effort, technology cost, et cetera – all resulting in more cost born by investors.

In turn, the higher the annual turnover rate a fund maintains, the greater these costs (higher commissions, market impact and spread costs) are exacerbated.

### **Soft Dollar Cost**

A mutual fund will often pay a broker higher trading fees in exchange for the broker’s research services. That premium boosts the brokerage commissions that investors pay and is called a “soft dollar” cost. Such costs are very difficult to determine so we did not include them in our data analysis. However, soft dollar costs are yet another example of the often hidden costs that drag down fund performance.

### **Cash Drag Cost**

Cash drag refers to the earnings lost while investor money sits on the sidelines. The greater the amount of cash in a portfolio, the less a fund earns in a rising market. This is not to say that cash in a portfolio is a bad thing, as long as the fund manager is searching and holding out for more attractively valued assets to meet the investment objectives.

### **Tax Cost**

Taxes erode mutual fund performance over time. If possible, it is advisable to invest in funds through a tax-mitigating product that allows the investor's assets to grow while minimizing taxes due to Uncle Sam.

### **Advisor Fees (on top of mutual fund costs)**

Advisor fees also impact an investor's portfolio. If advisors charge a large fee for their services, total returns to the client will again decrease. Because these costs can vary significantly between advisory firms we have excluded them from our calculations.

### **Overall Impact of Multiple Cost Categories**

We added the above components to determine the *actual* total annual expenses for a variety of popular funds (9) that emphasize growth and equity income styles. We then compared those figures to the funds' published expenses. Our finding: most investors end up paying 3 to 5 times more in expenses than the expense ratio indicates – excluding any advisor fee they may also incur. The average expense ratio we looked at ranged from about 0.80% to 1% yet most total annual expenses hovered between 3.2 and 4.3% (See *total expenses* column on excel worksheet).

Transaction costs play a huge role in boosting total expenses. Turnover and the associated brokerage commissions, including soft dollar costs, certainly eat into fund performance. However, transaction costs are not reflected in the widely published expense ratio for nearly all mutual funds.

In order to estimate mutual fund total expenses we added the six expense categories from above. The box on the next page offers more detail of our calculations.

We examined 35 popular mutual funds, particularly large AUM growth and equity income funds. Below are some definitions and calculations of important variables. The lower half of the box shows the equation to calculate total fund expenses with our aggregate estimate taken from our sample listed beside. Loads and advisor fees are not included in this calculation as both can vary significantly.

Brokerage commissions – Brokerage commissions from SAI divided by total AUM

Market impact – 0.49% (per trade) (1)

Spread – 0.13% (per trade) (1)

Soft dollar cost – unknown (but factored into brokerage commissions in the SAI)

*Total Transaction costs* = Brokerage commissions + [(Market impact + Spread) \* Turnover \* 2]

Cash drag – 0.83% (3)

Taxes – 1% (3)

Expense Ratio	0.8% - 1%
+ Load	varies
+ Total Transaction Costs	0.6%-1.44%
+ Cash Drag	0.83%
+ Taxes	1%
+ Advisor Fees	varies
<b>= Total Expenses</b>	<b>3.2% - 4.3%</b>

(1) Edelen, Evans, and Kadvec (2007)

(3) Bernicke (2011)

Both (1) and (3) provide cost component estimates taken from mutual fund averages

The SPIVA Scorecard, the S&P 500 mutual fund vs. index performance tracker has noted that over 56.53% (61.88%) of U.S. domestic equity mutual funds on a 3 and 5 year time horizon (5 yr percentages shown in parentheses) underperformed their benchmark. SPIVA also shows that large cap funds have underperformed by 69.39% (61.93%), mid caps have underperformed by 70.60% (79.55%), and small caps have underperformed their index by 51.60% (72.56%) on a 3 (5) yr time frame. Why have equity funds performed so poorly? One answer is high (and hidden) costs associated with high trading levels and loads. For example, a mutual fund with transaction costs of 1.5% p.a. must generate excess returns of at least 1.5% to justify the trading costs alone, otherwise it will underperform. (4)

A few examples of fund **under/over** performance from the perspective of individual investors are shown on the next page, along with some noted individual cost components as of July 18<sup>th</sup>, 2012.



CAPITAL  
INVESTMENT  
Advisors

Name	Ticker	Expense Ratio	Load	Turnover	(a) Total		(b) Total		5 yr	(d) Relative Return 5 yr	(e) Relative Return 5 yr	10 yr	(f) Relative Return 10 yr
					Transaction Costs	Expenses	Transaction Costs	Expenses					
DODGE & COX STOCK FUND	DODGX	0.52%	0.00%	16%	0.83%	3.18%	611.81%	-4.01%	-3.81%	-4.20%	5.17%	-0.16%	
FIDELITY MAGELLAN FUND	FMAGX	0.53%	0.00%	99%	1.40%	3.76%	710.28%	-3.98%	-3.78%	-4.16%	2.51%	-2.82%	
FIDELITY MID-CAP STOCK FUND	FMCSX	0.85%	0.00%	52%	1.18%	3.86%	454.41%	-0.42%	-0.22%	-0.62%	7.01%	1.68%	
VANGUARD TOT INT ST IDX-INV	VGTSX	0.22%	0.00%	3%	0.74%	2.79%	1270.12%	-5.64%	-5.43%	-5.81%	6.34%	1.01%	
AMERICAN GRW FD OF AMER-B	AGRBX	1.43%	5.00%	34%	0.97%	4.22%	295.94%	-1.83%	-1.63%	-3.02%	5.58%	0.25%	
CALAMOS GROWTH FUND-A	CVGRX	1.26%	4.75%	88%	1.30%	4.39%	348.04%	-1.42%	-1.22%	-2.58%	5.87%	0.55%	
EATON VANCE LARGE-CAP VAL-R	ERSTX	1.23%	0.00%	41%	1.03%	4.09%	332.84%	-2.97%	-2.77%	-3.16%			
T ROWE PRICE EQUITY INC-R	RRFDX	1.21%	0.00%	15%	0.83%	3.87%	319.52%	-1.58%	-1.37%	-1.77%			
TEMPLETON GROWTH FUND-A	TEPLX	1.08%	5.75%	22%	0.90%	3.81%	352.95%	-5.90%	-5.70%	-7.19%			
PUTNAM MULTI-CAP GROWTH F-D-A	PNOPX	1.22%	5.75%	69%	1.22%	4.27%	349.82%	-0.79%	-0.59%	-2.16%			
OPPENHEIMER CAPITAL APPREC-A	OPTFX	1.15%	5.75%	30%	0.94%	3.92%	340.44%	-1.97%	-1.77%	-3.32%			
HARTFORD CAPITAL APPREC-R3	ITHRX	1.40%	0.00%	75%	1.31%	4.54%	324.47%	-4.51%	-4.30%	-4.69%			
PUTNAM VOYAGER FUND-A	PVOYX	1.17%	5.75%	176%	2.09%	5.09%	435.45%	1.14%	1.34%	-0.26%			
BLACKROCK CAPITAL APPREC-A	MDFGX	1.07%	5.25%	81%	1.29%	4.19%	391.41%	0.56%	0.76%	-0.73%			
JANUS FUND-I	JANSG	0.89%	0.00%	90%	1.34%	4.06%	456.56%	-0.47%	-0.26%	-0.66%			
AMERICAN BEACON L/C VALU-INV	AAAGP	0.95%	0.00%	90%	1.31%	4.09%	430.92%	-2.57%	-2.36%	-2.75%			
AMERICAN GRW FD OF AMER-A	AGTHX	0.68%	6.75%	34%	0.97%	3.48%	512.06%	-1.09%	-0.89%	-2.65%			
FIDELITY GROWTH COMPANY FUND	FDGRX	0.84%	0.00%	36%	0.96%	3.63%	431.62%	3.99%	4.20%	3.78%			
VANGUARD PRIMECAP FUND-INV	VPMCX	0.45%	0.00%	8%	0.78%	3.06%	680.11%	1.40%	1.60%	1.19%			
T ROWE PRICE GROWTH STK	PRGFJ	0.70%	0.00%	30%	0.92%	3.45%	492.44%	1.30%	1.51%	1.10%			
AMCAP FUND-A	AMCPX	0.73%	6.75%	31%	0.93%	3.49%	478.12%	0.88%	1.08%	-0.71%			
T ROWE PRICE MID CAP GR	RPMGX	0.80%	0.00%	29%	0.94%	3.57%	445.72%	3.24%	3.45%	3.03%			
COLUMBIA ACORN FUND-CL A	LACAX	1.06%	6.75%	18%	1.07%	3.75%	353.77%	1.03%	1.23%	-0.57%			
MANSTAY L/C GROWTH FUND-A	MLAAX	1.06%	5.50%	52%	1.07%	3.96%	373.34%	2.16%	2.36%	0.79%			
HARBOR CAPITAL APPRECIA-INV	HCAIX	1.03%	0.00%	53%	1.08%	3.94%	382.36%	2.22%	2.42%	2.01%			
FIDELITY BLUE CHIP GROWTH	FBGRX	0.92%	0.00%	132%	1.62%	4.37%	474.88%	3.07%	3.28%	2.86%			
T ROWE PRICE EQUITY INC	PRFDX	0.68%	0.00%	15%	0.83%	3.34%	490.62%	-1.09%	-0.89%	-1.28%			
BLACKROCK EQUITY DIVIDEND-A	MDDVX	1.02%	5.25%	5%	0.76%	3.61%	353.64%	0.99%	1.19%	-0.30%			
VANGUARD DIVIDEND GROWTH-INV	VDIGX	0.31%	0.00%	13%	0.81%	2.95%	950.64%	2.95%	3.15%	2.74%			
AMER GENT EQUITY INCOME-INV	TWEIX	0.96%	0.00%	146%	1.66%	4.45%	463.29%	1.62%	1.83%	1.42%			
FIDELITY EQUITY-INCOME FD	FEQIX	0.67%	0.00%	80%	1.28%	3.78%	564.16%	-3.59%	-3.38%	-3.77%			
VANGUARD EQUITY INCOME-INV	VEIPX	0.31%	0.00%	29%	0.91%	3.05%	982.91%	1.33%	1.53%	1.12%			
FEDERATED STRAT VAL DVD-A	SVAAX	1.05%	5.50%	17%	0.86%	3.74%	355.75%	0.25%	0.45%	-1.08%			
COLUMBIA DIVIDEND INCOME-A	LBSAX	1.03%	6.75%	20%	0.85%	3.71%	360.47%	1.71%	1.91%	0.09%			
FIDELITY EQUITY DVD INCOME	FEQTX	0.67%	0.00%	82%	1.28%	3.78%	563.50%	-2.92%	-2.72%	-3.11%			
COLUMBIA DIVIDEND OPPORA	INUTX	1.16%	6.75%	105%	1.39%	4.38%	377.98%	-1.19%	1.40%	-0.41%			
Average:		0.90%	2.44%	53.11%	1.10%	3.82%	486.45%	-0.44%	-0.23%	-1.13%	5.83%	0.51%	

(a) Computed by taking the average of our estimate with Edelen, Evans, and Kadlec's (2007) estimate

(b) Excludes loads, and advisor fees

(c) As reported return

(d) Relative to S&P 500

(e) Relative return to S&P 500 after loads and taxes, but not advisor fees

### **Load Cost**

One example of loads impacting performance can be seen in the AMCAP Growth Fund (AMCPX). The fund claims that over five and 10-year time horizons it has achieved 1.08% and 0.47% outperformance compared to the S&P 500. In reality, after factoring in loads and taxes, investors have received -0.71% and -0.47%. Also, Columbia Dividend Opportunity (INUTX) has shown 3.27%, 3.03%, 1.40%, and 0.72% outperformance of the S&P 500 over 1, 3, 5, and 10-year time horizons. Its investors, however, have made -5.14%, -0.48%, -0.41%, and -0.23% relative to the S&P 500 in those time frames. The turnover was 105% last year for INUTX while front and back end loads total 6.75%. The excessive transaction costs and loads associated with high turnover often result in underperformance.

### **Strategy – Active vs. Passive**

Fund strategy also plays a role in determining how a fund performs. Cremers and Petajisto (2009) studied active vs. passive management fund performance by examining the contents of the fund as measured by the degree of overlap with the benchmark index, and tracking error, which is the disparity of returns of the fund vs. its benchmark. Their results showed that funds with high index overlap and both high and low tracking error underperformed the market while funds with little overlap -- stock pickers -- outperformed the market net of expenses including trading costs. So, contrary to popular belief, funds engaged in stock picking can provide excess returns over time. It is important to remember James Montier's wise advice to allow a fund at least three to five years to outperform as all funds providing excess returns will almost certainly at some point underperform the market for at least a few consecutive years. (5)(6)

Cremers and Petajisto concluded that many professional investors engage in closet indexing (high index overlap, low tracking error) and sector bets (high index overlap, high tracking error). These strategies are designed to replicate the market's performance or slightly outperform. Why? Because many professional investors are more concerned about maintaining a small tracking error than with generating large positive returns. Increased frequency of performance reporting and incentives to minimize tracking error have both led to decreased time horizons and high trading costs.



## Lower Cost Alternatives (ETFs)

How can investors avoid the high – and sometimes hidden – fees associated with mutual funds? Exchange Traded Funds (ETFs) are a good alternative for most investors.

In most cases ETFs provide a much better cost structure than mutual funds. ETFs can often avoid paying for issuing statements and providing toll-free, staffed call centers. According to the *2011 Lipper Quick Guide to Expenses*, front-end and no-load actively managed open-end mutual funds have an average expense ratio of 0.918% and passive mutual funds have an average expense ratio of 0.558%. Comparatively, actively managed equity ETFs have a median expense ratio of 0.889% vs. 0.525% for index ETFs. (7) ETFs are also more tax efficient than mutual funds. Mutual funds issue taxable capital gains distributions. When ETFs sell securities no taxable event occurs because ETFs are able to redeem shares for baskets of their underlying securities in a process known as in-kind redemption. Additionally, mutual funds must purchase securities when investors bring money to the fund and sell them when investors leave. ETFs are better able to minimize those transaction costs. (8)

ETFs are also far more transparent, disclosing their holdings daily while mutual funds tip their hand only semi-annually and 60 days after the fact. Furthermore, ETFs offer real time pricing information. Mutual funds are priced just once each day, after the market has closed.

ETFs are often specialized, which can be a great help to investors looking to ensure a diversified portfolio with minimal overlap. (8)

For these reasons we believe that an ETF is almost always the better choice over a similarly purposed mutual fund. We urge investors to seek the guidance of an experienced fee-only advisor specializing in ETFs, or an ETF Strategist dedicated to building low cost, tax efficient, ETF portfolios to meet the needs of individual investors and families.

Sources

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