

22.40	11.91	23.74	4.74
20.41	10.84	21.79	4.25
18.41	9.77	19.84	3.74
16.38	8.71	17.88	3.47

Cedarwinds Quarterly

Performance Updates and Market Commentary for Long-Term Investors

Vol. 3 Q2-08

Asset Class % Returns*

	5/31/08		Annualized Returns**	
	YTD	2007	3 Years	5 Years
Bonds				
Short-Term	1.21	5.19	4.08	2.94
Two-Year	1.17	5.27	3.87	2.84
Five-Year	-1.34	4.95	3.39	3.12
Intermediate	0.00	5.22	3.60	3.33
Domestic Stocks				
Large Market	-3.81	5.44	8.55	12.72
Large Value	0.44	-2.76	8.81	15.41
Small Cap	-2.29	-3.06	6.24	16.45
Small Value	-0.36	-10.75	5.35	18.51
Micro Cap	-4.77	-5.22	5.18	17.23
US Real Estate	8.54	-18.67	7.57	17.39
International Stocks				
Int'l Large Value	-4.09	10.24	19.46	26.91
Int'l Small	-0.56	5.66	17.18	27.32
Int'l Small Value	0.13	2.95	17.66	29.59
Int'l Real Estate***	-7.37	-14.17	N/A	N/A
Emg Mkts	-1.73	36.02	31.64	36.55
Emg Mkts Value	-1.70	45.64	37.99	45.23
Emg Mkts Small	-9.11	38.02	33.57	39.63
Continental Small	0.27	9.45	23.63	32.15
Japanese Small	2.60	-8.53	3.61	17.71
Asia Pacific Small	-1.61	40.05	28.20	34.06
UK Small	-4.01	-8.43	14.51	23.84

***2007--inception date of 4/07

Description of DFA Index Funds	TICKER
Short-Term Bonds 1-Year Fixed Fund	DFIH
Two-Year Bonds 2-Year Global Fixed Fund	DFGFX
Five-Year Bonds 5-Year Government Fund	DFFGX
Intermediate Bonds 5-Year Global Fixed Fund	DFGBX
Large Market Large Company Fund	DFLCX
Large Value US Large Value Fund	DFLVX
Small Cap Small Cap Fund	DFSTX
Small Value US Small Value Fund	DFSVX
Micro Cap US Micro Cap Fund	DFSCX
US Real Estate US Real Estate Fund	DFREX
Int'l Large Value International Value Fund	DFIVX
Int'l Small International Small Fund	DFISX
Int'l Small Value International Small Value Fund	DISVX
Int'l Real Estate International Real Estate Fund	DFITX
Emg Mkts Emerging Markets Fund	DFEMX
Emg Mkts Value Emerging Markets Value Fund	DFEVX
Emg Mkts Small Emerging Markets Small Fund	DEMSX
Continental Small Continental Small Company Fund	DFCSX
Japanese Small Japanese Small Company Fund	DFJSX
Asia Pacific Small Asia Pacific Small Company Fund	DFRSX
UK Small United Kingdom Small Company Fund	DFUKX

*Source: Dimensional Fund Advisors (www.dfaus.com)

The information contained herein is obtained from sources we believe are reliable, but we cannot guarantee its accuracy.

** Calculated based on calendar year results.

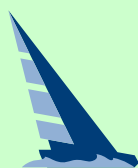
Past performance does not guarantee future returns.

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THE RISK - RETURN RELATIONSHIP

PART 8: INVESTMENT COSTS: A TRAGEDY OF EPIC PROPORTIONS

“Costs are the silent killers of investing, in effect ‘looting portfolios’ by creating a death spiral of negative compounding.”



\$2 Trillion and Rising FAST!!!

Introduction

For the last five years, globally diversified portfolios have generally provided excellent returns. Consequently, investment costs have tended to be a marginal concern for most investors. However, given recent market volatility and the downward price pressure across all global markets beginning in the final quarter of 2007, it is instructive to once again put the cost of investing under the analytical microscope.

Revisiting the ABCs of Investing

As background to the cost question, our view is that there are four basic variables that determine investment outcomes. The two primary uncontrollable variables are market behavior and inflation. The two primary controllable variables are asset allocation and costs. Because these two controllable variables are known and actionable, investors who either ignore or are indifferent to them do so at their own peril.

Throughout our series on managing portfolio risk-return relationships, we have focused on the first controllable variable—asset allocation—and how the diversification discipline used in our asset allocation process determines investment performance. This controllable variable is the most important element in the investment decision-making process. We have cited a wealth of academic research supporting the fact that the variability of investment returns is attributable to how investments are allocated across different asset classes, not because of market timing or stock selection.

Continued on back

But lost in the diversification discussion is the second controllable variable—the cost side of the performance equation. It gets short shrift. It is not sexy. It doesn't sell media advertising. And it cannot compare to the entertainment value of the latest MSNBC rant on why the new biomedical gold and oil exploration ETF hedge fund will double over the next six months. Yet while the cost of investing has been an important element all along in terms of its impact on performance, only a few industry leaders, such as John Bogle, the founder of Vanguard, and DFA have consistently beat the cost drum.

“Gas-Guzzler” Portfolios

In one of the first editions of this newsletter we addressed the topic of investment costs and the tremendous drag that the fees and expenses of active management have on investment performance. The point was made that **costs represent opportunity risk** due to the cumulative, negative compounding impact they have on ending portfolio values. We stated that when added together, the direct and hidden costs living on the investment food chain conspire to create a **giant sssssssucking sound**, significantly penalizing investment returns. It is a sound very similar to the noise of gas being inhaled by large, gas-guzzling SUVs and pick-up trucks, and the rising cost of operating them.

Indeed, a direct comparison can be made between investment costs and the current hand-wringing associated with the rising cost of energy. Not much attention is paid to fuel expense when the economy is strong, jobs are abundant, consumer confidence is high, inflation is tame and the cost of gasoline is stable. But when things turn south and fuel costs spike, attention quickly focuses on the cost side of the equation. Feeling gouged, consumers are understandably upset with \$4 a gallon for gas every time they go to the pump. Politicians scramble to position their rhetoric against big oil companies and debate who's at fault. Everyone feels the pain—the ripple effect through the economy is palpable and the mainstream media headlines the problem at the top of every newscast and on the front page of every newspaper. There are dire predictions of an approaching global economic catastrophe. It is a human interest story that cuts a very wide swath in every direction.

Similarly, investors seem to tolerate investment expenses when the markets are doing well; however, in periods when performance suffers, there is understandably more focus on expenses. But there is a critical difference between fuel costs and investment costs. The cost paid at the pump is clear to the end consumer: it is understandable, direct and tangible—there is final price transparency. With investing, however, the cost issues are much more subtle and indirect. Costs are not well understood by the investing public, and are poorly articulated and confusingly presented by the investment profession. They are often buried in a maze of reporting that is far too complicated for most investors to easily understand and for many investment advisors to objectively explain. Regrettably, there is a very high complacency factor regarding investor attitudes about cost.

The Recognition Imperative

Our view is that the cost of investing to consumers should command much more attention by the media and by the public at large than soaring fuel costs. Why? Because the stakes are so much greater and the time to act is much more urgent! How so? Because the magnitude of the problem is so large and the fact that so many investors, sadly, are simply running out of time.

Record numbers of baby boomers are beginning to confront the grim reality of approaching retirement without having built a sufficient investment nest egg. Rising health care costs and inflation rates compete for every dollar investors are able to earn. Time is a critical ingredient to provide for an adequate retirement, build enough financial cushion to handle the uncertainties everyone faces, and have the best shot possible of being able to afford an inherently unknowable future. *But the clock is ticking.*

For investors, there is a cost recognition problem that involves two related considerations: price transparency and understanding the various components of cost. Consumers understand they have choices regarding fuel costs in the form of alternative modes of transportation, telecommuting, smaller cars, etc. With investing, however, objective cost identification is concealed in language and processes that are not user friendly. Investment costs are described in terms like “basis points,” “loads,” “contingent deferred sales charges,” “performance fees,” “wrap fees,” “turnover expenses” and “miscellaneous” administrative expenses.

Then there are the “hidden costs” of investing. The annual expense ratio reported by stock mutual funds does not reflect the other major expenses arising from trading of stocks and other securities within the funds. These additional expenses

Continued on next page

include commissions paid by the fund's investment advisor to broker-dealer firms, bid-ask spreads, market impact costs, opportunity costs relating to delayed and canceled trades, and opportunity costs due to cash holdings. In fact, studies indicate that these hidden costs raise the average *total* cost of US stock mutual funds to a range of from 2.5% to 3% annually.

There is also the subject of tax efficiency, another critical category of indirect expenses, which can be extremely challenging for the average investor to quantify and compare against. Even more alarming, the "gas guzzling" effect occurring in the retirement world of 401(k) and 403(b) plans is not only obscure, it is downright abusive. As a result of this mishmash, it is no surprise that investors rarely develop a clear understanding of what their true investment costs are.

Given a choice of whether having affordable gas or an affordable retirement is more important, the decision should be clear. Yet the daily headlines are dominated by stories about the financial pain inflicted because of the high price of gas, not how investors are jeopardizing longer-term financial security by not understanding—or ignoring—the painful math of investment costs. Admittedly, these are not mutually exclusive considerations. But the comparison does illustrate an all-too-familiar reality: short-term, event-driven issues often camouflage longer-term, more compelling problems if the dialog is not adequately focused or consistently reinforced.

A \$2 Trillion Perspective

In an effort to shed additional light on the scope of the investment cost problem, the following broad perspective is offered. It reflects an industry view stemming from pioneering research recently published by Ken French, a professor at Dartmouth College's Tuck School of Business and Director of Investment Strategy at DFA. French has authored numerous articles on investing and finance and is perhaps best known for his work on the Fama-French Three-Factor Model which supports the view that over time, small capitalization and value stocks offer higher returns than large cap growth stocks.

French's research was designed to answer the question, "How much do investors collectively spend trying to beat the market?" He determined that investors spend 0.67% of the aggregate value of the market each year searching for superior returns. His analysis implies the typical investor would have increased his average annual return by 67 basis points over the 1980 to 2006 period by switching to a passive market portfolio. For the year 2006 alone, the active strategy meant that *the estimated cost to investors exceeded \$100 billion*—and this estimate relates to US equity trading only and does not include international developed or emerging markets!

We have taken the liberty of extending French's analysis to make the findings even more compelling. By adding up the annual cost of active management over the last 25 years and adjusting for inflation, *the total cost to investors in US equities is nearly \$2 trillion*. Applying French's methodology to the international markets in addition to the US markets implies that *active investing is currently penalizing investors more than \$200 billion a year on a global basis*.

In his analysis, French ponders the question, "Why do active investors continue to play, and lose, a negative sum game?" He believes the most dominant reason is a general misperception about investment opportunities. According to French, many are unaware that average active investors would increase their return by switching to a passive index strategy. Financial firms certainly contribute to this confusion—the general message from Wall Street is that active investing is easy and profitable. The message is reinforced by the financial press, which offers a steady flow of stories about undervalued stocks and successful fund managers.

Overconfidence is probably the other major reason investors are willing to incur the extra expenses and transaction costs of active strategies. Investors who are overconfident about their ability to produce superior returns are unlikely to be discouraged by the knowledge that the average active trader must lose. Finally, some investors trade actively because they really are able to produce superior returns. However, active investing is still a negative sum game. Every dollar a superior investor earns must increase the aggregate losses of all other active investors.

An Illustration: The Power of Negative Compounding

In addition to appreciating the big picture perspective presented above, it is instructive to understand the simple math of how different expense levels and negative compounding erode ending portfolio values over time.

Continued on back

The table below reflects a hypothetical portfolio with a beginning value of \$1 million and compares the ending value using three different expense level assumptions over three separate time periods. Because the annualized rate of return for each portfolio is held constant at 11%, the table is a pure calculation of the impact of costs.

\$1,000,000 Portfolio
Hypothetical Performance Comparison
The Impact of Expenses on Ending Portfolio Values

Initial Portfolio Value	Years Invested	Portfolio	Annual Expenses	Total Expenses			Ending Portfolio Value	Total Expenses as % of Ending Portfolio Value	Fund A Advantage
				Direct Fees	+ Foregone Earnings	= Total Expenses			
\$ 1,000,000	5	Fund A	0.77	\$ 52,331	\$ 11,552	\$ 63,883	\$ 1,621,175	3.9%	
		Fund B	1.50	\$ 100,313	\$ 22,332	\$ 122,644	\$ 1,562,414	7.8%	\$ 58,761
		Fund C	2.25	\$ 147,994	\$ 33,235	\$ 181,228	\$ 1,503,830	12.1%	\$ 117,345
	10	Fund A	0.77	\$ 137,170	\$ 74,043	\$ 211,213	\$ 2,628,208	8.0%	
		Fund B	1.50	\$ 257,043	\$ 141,242	\$ 398,284	\$ 2,441,137	16.3%	\$ 187,071
		Fund C	2.25	\$ 370,551	\$ 207,366	\$ 577,917	\$ 2,261,504	25.6%	\$ 366,703
	20	Fund A	0.77	\$ 497,681	\$ 657,155	\$ 1,154,835	\$ 6,907,476	16.7%	
		Fund B	1.50	\$ 884,519	\$ 1,218,645	\$ 2,103,163	\$ 5,959,148	35.3%	\$ 948,328
		Fund C	2.25	\$ 1,208,553	\$ 1,739,356	\$ 2,947,909	\$ 5,114,402	57.6%	\$ 1,793,074

Assumptions:

- ♦ Annualized Return: 11% (annualized long-term S&P rate of return) for all funds
- ♦ Annual Expenses: Fund A 77 basis points; Fund B 150 bps (average actively managed equity mutual fund expense); Fund C 225 bps (higher range estimate)

Calculation Source: SEC Mutual Fund Calculator

NOTE: This analysis is for illustration purposes only and does not reflect actual investment performance or anticipated results.

The last column highlights the ending portfolio value advantage of the lowest cost portfolio – Fund A – compared to the higher cost alternatives representing Fund B and Fund C. Especially compelling is the amount of foregone earnings that accumulates and compounds over longer time periods. Expressed as a percentage of ending portfolio value, expenses can easily eat up more than 50% of the ending amount. Understanding how the math works, why would rational investors not aggressively seek out investment solutions that are low cost, other things being equal?

Final Thoughts on Costs

After asset allocation, the most reliable predictor of investment success is reducing expenses. Savvy investors know that every dollar they pay in expenses is a dollar they won't ever see, a dollar that will never earn more money for them. Conversely, every dollar by which you reduce your expenses is a dollar that remains in your portfolio, working for you, instead of fattening someone else's wallet. Over the years, we have all been witness to the financial plundering, arrogance and perversion that too often occurs in this industry—sumptuous offices, outrageous lifestyles, eight figure performance bonuses and eye-popping severance packages, etc. Don't get us wrong—we are capitalists at the core. But our observation is that most investors do not spend enough time developing a base level of understanding necessary to make informed judgments about the cost side of the investment equation. Obviously, expenses are inevitable in investing. No company will create and manage portfolios for you, keep records of your account, provide statements and deliver customer service for free, but some investment advisors do this much more efficiently than others.

At Cedarwinds, we are committed to maintaining our low cost approach as a key component of our overall business strategy. If we stand accused of being zealots on the issue of investment costs, we are proud to admit our guilt. Our experience is that way too much emphasis is put on performance—the sexy side of the business—and not enough attention is placed on the costs involved to deliver that performance, in good markets or bad. The argument is often made that performance is typically reported net of costs so that costs are actually accounted for. The thinking goes that if investors are satisfied with performance, costs really shouldn't matter. We couldn't disagree more. The bottom line is that for most investors, the real math of investing—including direct, indirect, and hidden expenses *plus* inflation—means there is a performance "hurdle rate" of 6%-7% each year just to break even!

In summary, investment costs do not purchase superior returns, they only reduce expected returns. These costs add up over time and consume, on an ever compounding basis, an astonishing amount of an investor's potential wealth. There is certainly no status to be gained in overpaying, and what you don't know really does hurt you.