GREYCOURT

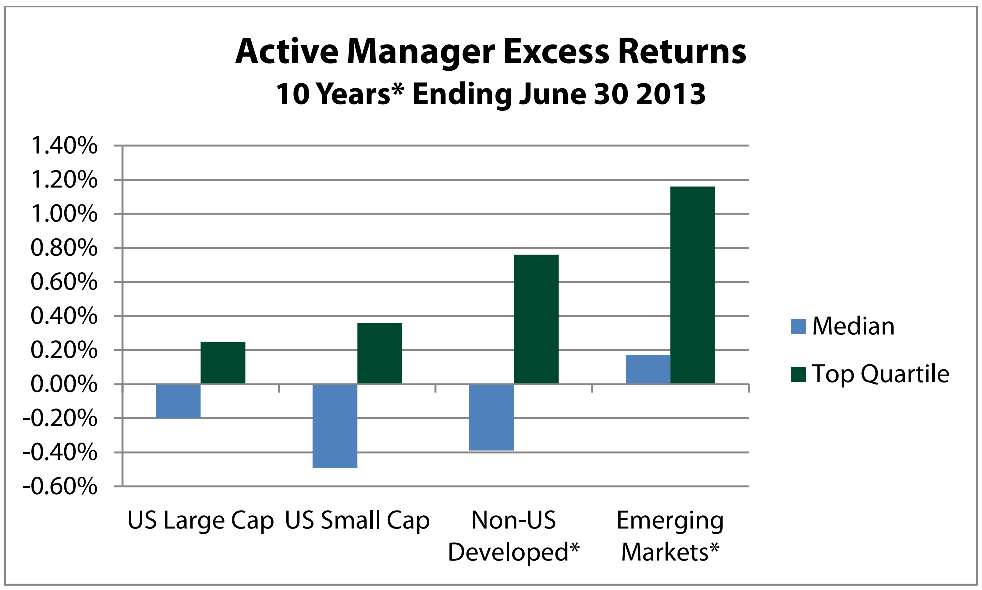
White Paper No. 57:
Actively Passive

October 2013

GREYCOURT

*“**Insanity:** doing the same thing over and over again and expecting different results”.*
-Albert Einstein

Over the past two decades dozens of papers and articles have been written questioning whether active equity managers outperform passive index funds. To date, the lion’s share of this research has concluded that most active managers have failed to generate sufficient excess returns to justify their higher fees. In fact, over the past decade most active long-only managers have underperformed their respective benchmarks by depressingly wide margins. In the face of this poor relative performance and in light of evidence mounting against the value proposition promised by active long-only managers, it is surprising that so many sophisticated investors continue to allocate significant portions of their portfolios to active equity managers.



❖ The Sad Facts

Although we do not want to spend a lot of time re-examining historical data, it is useful to take a quick look at how active managers have performed in recent years. The graph above (**Figure 1**) illustrates how both median and top quartile equity managers across several equity asset classes have fared relative to passive alternatives over the past decade. One quick glance at the results and it is apparent that median active equity managers have meaningfully underperformed their respective indexes net of fees. Emerging markets equity is an exception, although frankly the magnitude of median manager outperformance in this asset class is quite small at only 0.18%."[1]

❖ Things Are Even Worse Than They Appear…

Even though excess returns of active equity managers over the past decade are unimpressive, the actual results are even worse than they initially appear. A common flaw associated with most databases, including the Morningstar database we used to compile the results in **Figure 1**, is survivorship bias. Survivorship bias is the logical error of concentrating only on managers that "survived" and overlooking those that didn't. In the case of manager databases, this means that the performance of managers who have failed or who have simply dropped out of the database are excluded from reported results. While it is difficult to precisely measure the impact of survivorship bias, a 2006 study by Savant Capital Management Zero Alpha Group found that dropping defunct funds from the Morningstar database boosted reported returns on average by 1.3% per annum over the ten year period. If we reduce the reported top quartile manager results shown in **Figure 1** by 1.3% per annum, even top performing managers, irrespective of asset class, fare poorly against simple passive alternatives.[2]

❖ But Wait There's More…

Investor behavior further detracts from realized returns. The results shown in **Figure 1** assume that investors had the patience to maintain their investment in median or top performing funds during the full 10-year period examined. We know from experience, however, that most investors (and/or their advisors) lose patience with active managers who underperform their benchmarks over much shorter time horizons. Several studies have sought to examine the damage done by investors switching into and out of managers based on short-term performance.

---

[1] While we have chosen to use the Morningstar database to reflect active manager universe returns, information from other database providers like Lipper, Zephyr, and eVestment show broadly similar results.

[2] The study applied returns to the closest fitting index to each asset class for the period 1999 - 2004. For U.S equity returns the benchmark indexes were S&P indexes. For developed market international stocks the market benchmarks were MSCI indexes. Emerging markets stocks were benchmarked to the S&P/IFCI Emerging Markets index. The following table records the study findings of survivorship bias in the Morningstar data, showing the annualized return adjustment needed to provide bias-free returns.

Asset Class	Value	Blend	Growth
US Large	-1.00%	-1.90%	-.006%
US Mid	-2.00%	-2.40%	1.40%
US Small	-1.10%	-0.40%	-1.50%
Foreign		-2.00%	
Europe		-2.90%	
Diversified Pacific		-2.40%	
Emerging Markets		-1.00%	

A 2012 Dalbar study examining the last 20 years shows that investors in US stock mutual funds earned an average annualized return of 4.25 percent during that period, while the Standard & Poor's 500 Index generated an 8.21 percent return, a shortfall of nearly 4% annually! As outlined in **Figure 1** the median US equity mutual fund, after fees and expenses, underperformed by "only" 0.20% so where did the bulk of the underperformance in Dalbar's study come from? According to Dalbar's president Louis Harvey, "Investors move their money in and out of the market at the wrong times. They get excited or they panic, and they hurt themselves." Investors are brilliant at buying high and selling low, just the opposite of successful investment strategy. [3]

Lest you think that this behavioral flaw applies only to unsophisticated retail investors, think again. A 2009 study entitled, "Absence of Value: An Analysis of Investment Allocation Decisions by Institutional Plan Sponsors" examined the investment decisions of hundreds of institutional pension funds from 1984 to 2007. They found that:

> "[I]nvestment products that received contributions subsequently underperformed products experiencing withdrawals over one, three and five years. For investment decisions among equity, fixed income and balanced products, most of the underperformance can be attributed to product selection [as opposed to asset allocation]. The magnitude of return destruction from product switching amounted to approximately 64 basis points annually. We believe that much of this value-destroying product switching by institutional investors resulted from sheer impatience motivated by a misplaced focus on short-term results."[4]

Had these plan sponsors been invested in passive vehicles, we suspect that the frequency of switching products due to perception of near-term underperformance would have been greatly reduced.

---

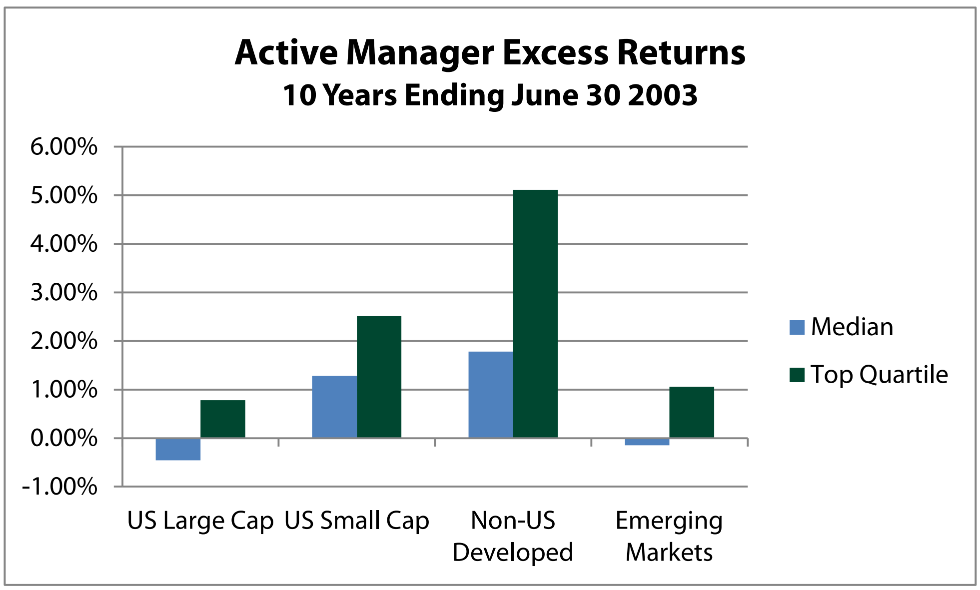
[3] "Dalbar's Harvey: Individual Investors Brilliant at Mistiming Markets" Moneynews March 11, 2013 by Dan Weil.

[4] "Active Management in Mostly Efficient Markets" Robert C. Jones, Russ Wermers, December 2011, Financial Analysts Journal, Volume 67. No. 6.

❖ Has the Past Decade Been Unique?

Some have argued that the poor relative performance of active managers over the past decade has been an aberration due to higher-than-normal correlations caused by the Fed's unusually easy monetary policies. In such a high correlation environment, some argue that stocks react disproportionately to macro events rather than to stock specific differences that active managers normally seek to exploit. To test that claim, we examined how active managers performed versus passive alternatives during the prior decade (1993 to 2003).

Figure 2 below shows that for the decade[5] ended June 30, 2003, median US large cap and emerging markets managers underperformed passive alternatives by even greater margins than they have over the most recent decade. Top quartile managers within these asset classes showed outperformance of about the same magnitude they have recently, although the specific managers who outperformed were entirely different. We did, however, see significantly better relative results from active US small cap and non-US developed managers. Here, both median and top quartile managers exhibited notable outperformance relative to passive vehicles.



Although it is difficult to ascribe a precise cause for this markedly different outcome for non-US equity managers and US small cap managers during the prior decade, several possible causes come to

[5] Source: Morningstar data. Note that due to data limitations time horizon for emerging markets is nine years and for EAFE is seven years.

mind. First, in 1993, the EAFE index was disproportionately weighted to Japanese stocks. At its peak, Japanese stocks represented over 67% of the index. Whether through superior insight or merely sheer conservatism, most active non-US equity managers maintained significantly lower Japanese exposure than did the index. Of course, we now know that the Japanese stock market subsequently collapsed; today Japan represents only 20% of EAFE. While it is tempting to ascribe active non-US equity managers' decision to underweight Japan at that time as purely arising from investment skill, it seems more likely that basic diversification principles were at work. Regardless of the reason, active non-US equity managers did outperform the EAFE index by a wide margin in the late 1990s.

The outperformance of US small cap stocks from 1993 to 2003 was likely due to basic informational inefficiency. In the 1990s, the Internet was in its infancy. Information on individual companies, especially small companies, was far harder to access back then. Small cap stock managers who had access to information at that time had a distinct edge over most investors. In addition, the imposition of Regulation FD in the early 2000s, which precludes company management from sharing information with certain investors but not others, may have further leveled the playing field among small cap stock investors.

❖ Taxes Take an Even Greater Bite

Thus far all of the returns we have examined have been pre-tax. For the private investor, taxes have always represented a significant cost of investing. The return drag associated with taxes has become even greater following the changes to tax rates that became effective in January 2013. Greycourt calculates that at current tax rates, prospective additional taxes incurred by average active managers will be as follows:

Asset Class	Expected Total Return	Average Turnover	Average Fee	Added Tax (20 year horizon)
US Large Cap	7.7%	65%	1.44%	0.71%
US Small Cap	7.6%	68%	2.07%	0.60%
Non-US Developed	7.0%	63%	1.46%	0.65%
Emerging Markets	11.2%	71%	2.19%	1.70%

Source: Morningstar Principia, Greycourt estimates & calculations

❖ Caveat Emptor

Over the past decade the number of passive vehicles available for investment has positively exploded. In the past, investors' passive investing options were pretty much limited to simple capitalization-weighted indexes. Today, however, investors must choose from a dizzying array of passive vehicles including: fundamentally-weighted indexes, sector specific funds, country funds, low volatility funds, leveraged funds, etc. The decision as to which fund(s) to utilize is becoming almost as complicated as selecting active managers. Investors should evaluate passive vehicles based on a number of critical metrics such as tracking error to their targeted index, structural integrity, fees, liquidity, tax efficiency and tactical attractiveness.

We also note that some commonly used capitalization-weighted indexes are quite poorly diversified, and can therefore expose investors to undue concentrations among both sectors and geographies. For example, although the MSCI Emerging Markets Index contains over 800 securities spread among 21 countries, it is far from broadly diversified. The index's two largest country weights, China and Korea, collectively comprise 34% of the index while the financial sector represents a whopping 27% of the index.

Changes to index construction rules can also impact the desirability of an index. For example, starting in 2007, the Frank Russell Company changed its methodology for allocating companies between the Russell 1000 and Russell 2000 Indexes. Prior to 2007, the construction of the Russell 1000 Index was exceedingly simple; it merely represented the largest 1/3 of US stocks in the Russell universe; the balance was assigned to the Russell 2000 Index. In 2007, however, Russell introduced the concept of "banding" which allowed them to enable stocks falling at the cusp of capitalization weights from flipping between indexes. The stated purpose of this change was to minimize index turnover, however, according to data calculations performed by Russell itself, this change in methodology has impacted the return of the Russell 2000 Index by just over 1% per annum.[6]

❖ Active Sizing and Tax Management Decisions

Once a decision has been made to establish core long-only equity exposures using passive vehicles, a number of other critical decisions need to be addressed. Aside from the selection of the appropriate index, as discussed above, an investor must address the following questions:

1. How large should the passive core of the portfolio be?

[6] "Small Stocks Are in the Eye of the Index" Justin Lahart, Heard on the Street, Wall Street Journal, July 29, 2013

2. Are more flexible but more costly separate accounts the best choice or are lower cost mutual funds and ETFs superior?

3. If separate accounts are used, how often should tax losses be harvested?

4. How often should gains be realized?

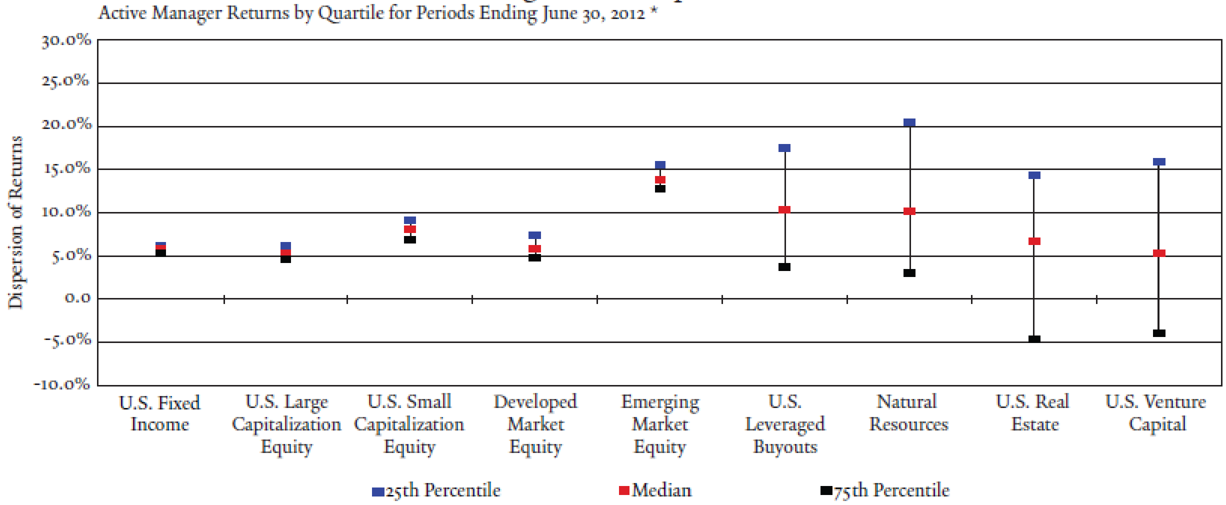
5. How does one efficiently integrate active satellite managers with a passive core?

❖ Which Asset Classes are Best for Active Management?

Pursuing a passive investing strategy is neither possible nor wise for all asset classes. High risk/ high return and generally inefficient investments like private equity, private real estate, natural resources or hedge funds are categories of investing for which no viable passive options exist. Dispersion of returns among top and bottom quartile managers in these types of alternative investments is typically quite large (see **Figure 3** below). Of course, identifying and accessing top performing managers in these asset classes is just as hard, and in many cases harder, than in long-only categories, but the reward for successfully identifying top managers here is typically much larger than it is in traditional equities or bonds.

Alternative Asset Returns Exhibit Significant Dispersion

Active Manager Returns by Quartile for Periods Ending June 30, 2012 *



* Fixed income and marketable equity performance based on annualized ten-year returns of BNY Mellon manager universes, adjusted for fees.
Venture capital, LBO, real estate, and natural resources returns based on annualized since-inception IRRs of Cambridge Associates manager universes.

Source: 2012 Yale Endowment Report

❖ Conclusions

The evidence in support of utilizing passive investing as the core of long-only equity exposure is compelling, especially for taxable investors. While superior long-only active managers certainly do exist, identifying them requires enormous amounts of time, effort and expertise. More importantly, even if an investor is successful at identifying top performing active long only managers, the magnitude of excess return generated by "winning" manager can be quite modest. Investors should look carefully at each active manager and be cognizant of the issues that exist such as potentially higher taxes and higher fees relative to their index equivalent. **Selecting the appropriate index is not a trivial exercise.** Traditional low-cost capitalization-weighted indexes are fine for some asset classes but are seriously flawed for others. Understanding index construction rules, diversification, trading costs and tax efficiency is critical to making wise decisions. In addition, just like active managers, certain indexes perform better in certain environments than in others. Marrying an informed tactical view with an understanding of index construction differences can result in superior long-term performance. **Pursuit of active managers is best rewarded in less efficient asset classes.** Dispersions of returns in relatively inefficient asset classes like private equity, opportunistic real estate, natural resources and hedge are significantly wider than in traditional long only asset classes making the rewards for success far more meaningful. This does not mean that searching for highly differentiated active managers in long-only equity asset classes is entirely futile. However, one needs to critically assess the breadth, depth and informational efficiency of the opportunity sets available to active managers in any given sector or asset class. As the most efficient segment of the market, publicly-traded equities present active managers with particular challenges that have made outperforming low cost passive vehicles very difficult.

In conclusion, like Sisyphus the legendary figure of Greek mythology condemned to repeat forever the same meaningless task of pushing a boulder up a mountain only to see it roll down again, investors seeking out top performing active managers face a similarly frustrating although by no means impossible task. The empirical data presented in this and other studies illustrate that most active equity managers underperform relevant benchmarks net of fees. Identifying top performing active managers is possible, but only by applying proper discipline, skill and experience. Even when one identifies a great manager however, the added drags of poor investor-driven timing decisions and taxes (where applicable) often so diminish the advantage of even top performing managers that it renders investing in them a hollow victory. We do believe that compelling active equity managers do exist and can be found but they are extremely rare and identifying them is extremely hard. The search goes on.

This paper was written by Gregory Friedman, Chief Executive Officer, of Greycourt & Co, Inc.
The author can be reached by phone at 503.226.0470 or by email at gfriedman@greycourt.com.

Please note that this presentation is intended to provide interested persons with an insight on the capital markets and is not intended to promote any manager or firm, nor does it intend to advertise their performance. All opinions expressed are those of Greycourt & Co., Inc. The information in this report is not intended to address the needs of any particular investor.