Winslow Capital

Thought Leadership in Sustained Alpha Creation

Active Versus Passive Equity Management

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EXECUTIVE SUMMARY

The market share of passive investing in fixed income and equity securities has grown exponentially over the last 10 years. In this paper, we propose that, while there are thoughtful structural reasons for passive investing, in many cases passive's growth is an example of performance trend following. In fact, following the trend into passive investment strategies may prove imprudent for some investors. We will examine the performance cyclicality in active/passive investing, review the compounding benefits of alpha generation, particularly in lower return equity market environments, and explore statistically compelling methods to assess active managers.

MARKET SHARE OF PASSIVE INVESTING

On November 1, 2003, 12% of all U.S. open-end mutual fund and ETF assets (not including fund of fund or money market assets) were invested in passively managed products. By year-end 2013, this percentage had more than doubled to 27%. The shift was even more acute in equity management where the percentages have climbed from 17% in late 2003 to 35% in 2013 (excluding sector funds and funds of funds).[1]

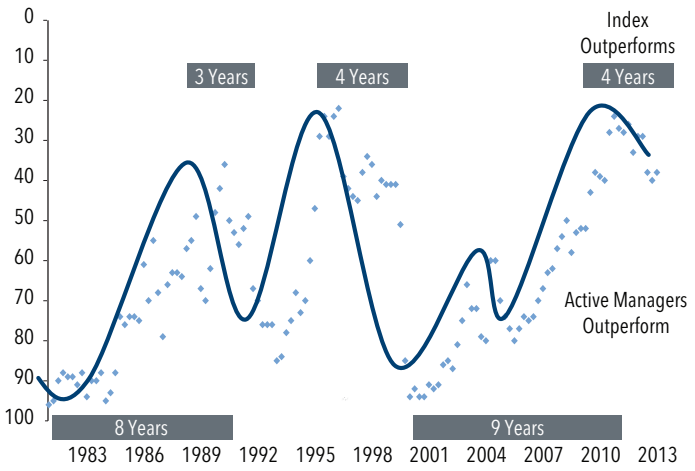
The debate over the merits of passive versus active has continued since index funds were first launched nearly 40 years ago. Active managers work on the principal that markets are not efficient and that analysis can uncover mispriced securities. These managers help facilitate price discovery and, in turn, are price makers. Passive strategies, in contrast, are price takers. Taken to an extreme, a market with no active management would likely result in a substantial misallocation of capital.

1 Morningstar, "A Bull Market in Passive Investing," by Adam Zoll, 1/6/2014.

There are several factors that have led to the massive share shift to passive investing. Financial advisors are moving away from a commission-based fee structure that rewards them for putting clients into load funds and toward a structure that pays them a percentage of assets under management. Passive strategies typically have fees less than half the levels charged in active strategies. And, finally, the performance cycle of active management alpha shows passive investing currently in favor as highlighted in the graph below (Exhibit 1).

Exhibit 1: Rank of Russell 1000® Growth Index Among Active Large Cap Growth Managers

(3-year rolling returns)

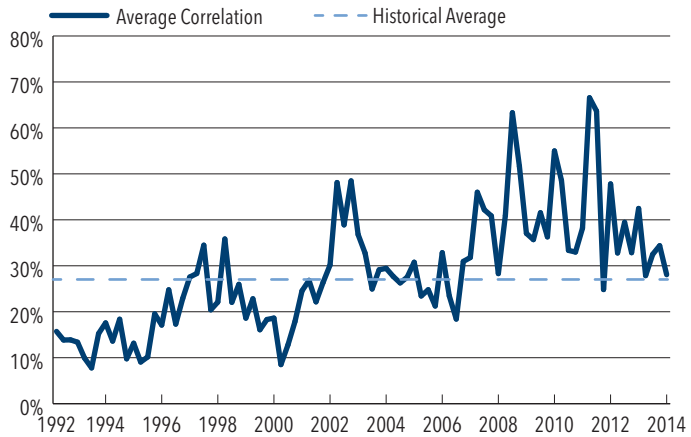


Source: eVestment. Based on US Large Cap Growth Equity Universe using rolling 12-quarter returns beginning 1979 (through 3/31/2014).

Using the U.S. Large Cap Growth equity universe as an illustration, there have been just three periods where active management in aggregate failed to generate excess returns for more than one quarter on a rolling three-year basis. Since the formation of the Russell 1000 Growth Index in 1979, the duration of each of these periods has been less than four years. All three of these periods were associated with extreme environments in the capital markets: the S&L crisis; the 90's technology bubble; and the Great Recession in late 2008. They were also marked by heightened market volatility. The most recent four-year period ended in mid 2013, when the macro environment settled and stock price correlations began to drop. Our research concludes that we are at the early stages of expanding stock price dispersion and an environment where company fundamentals will more meaningfully influence valuation differentials. This environment will be more ideal for stock pickers with expertise in analyzing and differentiating idiosyncratic factors affecting a company's earnings.

Exhibit 2 highlights current correlations versus historic averages.

Exhibit 2: Average Quarterly Return Correlation Among Large Cap Growth Stocks



Source: Empirical Research Partners Analysis. Computed using daily data.

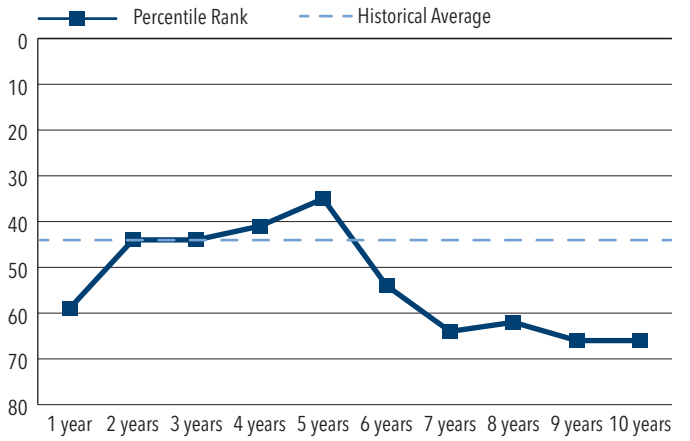
Unfortunately, institutional and retail investors often seek strategies that were recently effective. Daniel Kahneman examined this phenomenon, winning the Nobel Prize in Economics for his decision-making framework model. In it he found that the vast majority of decision makers misestimate probabilities in predictable ways. In one common bias, people tended to rely on "the law of small numbers," believing that a relatively small number of observations would closely reflect the greater population. In an investment manager context then, if outperformance of the index relative to active managers continues for four years, many would conclude that the index will continue to perform better than average, even though this conclusion does not necessarily follow from a relatively small sample of data.

OPPORTUNITY FOR ALPHA

Another factor contributing to the increased share in passive investing is the challenge that plan sponsors and investors face in selecting active managers who add value ex post, without taking excessive risks. This point of view, however, clearly overlooks the capacity for reasoned flexibility and control in active management. An active manager can increase or reduce exposures to manage both risk and return.

A frequently cited statistic in the active versus passive debate is that in any given year most managers do not exceed their benchmark. However, over the last 10 calendar years, active Large Cap managers outperformed the Russell 1000 Index in six out of 10 years. Extending beyond five years, over half of active Large Cap managers exceeded this benchmark for the six, seven, eight, nine and 10-year periods. (Exhibit 3)

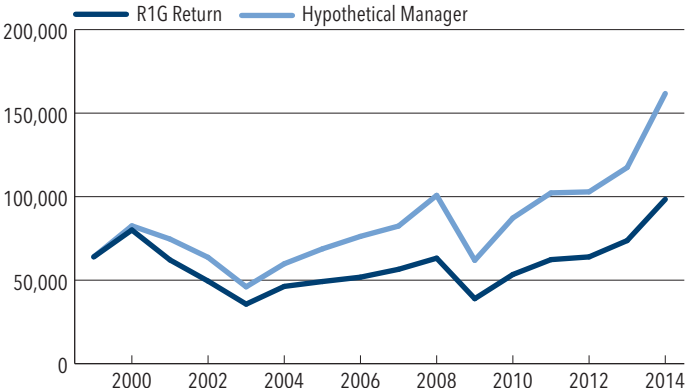
Exhibit 3: Declining Relative Performance of the Russell 1000 Index Over Time



Source: eVestment, based on the Russell 1000® Index percentile rank in the US Large Cap Equity Universe as of 3/31/2014.

Choosing solely a beta strategy over an alpha strategy can have enormous negative implications for investors. The Employee Benefit Research Institute's recent study on 401(k) plan asset allocation indicates that more than three-quarters of participants in the 2012 EBRI/ICI 401(k) database had account balances of less than $63,929. Further 39.6% of the participants had account balances of less than $10,000.[2] Exhibit 4 below highlights the difference over 15 years of investing in the Russell 1000 Growth Index and investing with a hypothetical large cap growth top quartile money manager generating 310 bps of alpha for a typical 401(k) account balance.

Exhibit 4: Value of $63,929 over 15 years

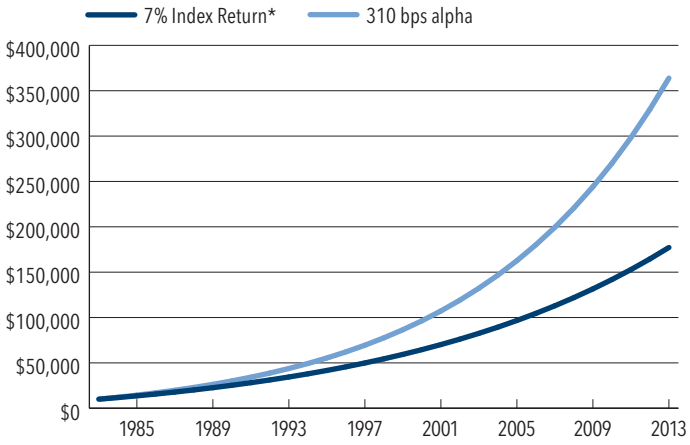


Assuming 310 bps of alpha for a top quartile manager based on Morningstar Direct; Baird Analysis. For the 15-year period ended 3/31/14 excess returns for mutual funds. See Exhibit 9 for details.

2 Employee Benefit Research Institute, "Issue Brief: 401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2012," by Jack VanDerhei, EBRI; Sarah Holden, ICI; Luis Alonso, EBRI; and Steven Bass, ICI, 12/2013.

The nearly 40% of plan participants with just $10,000 in a 401(k), are statistically about 30 years in age.[2] If we (a) assume the participant adds $1,000 per year to his or her retirement account; (b) assume 7% expected long-term return for U.S. Large Cap Growth equities; (c) assume 310 bps of alpha generation (see Exhibit 9 for detail); and (d) chart for a 30-year period, the difference is apparent. At the end of 30 years, the participant would have an ending balance of $170,583 if passively invested and $346,956 if invested with a top quartile Large Cap Growth manager. The differential would mean that, should the participant retire at the end of this period, he or she would have $711 per month to spend if passively invested and $1,445 to spend if actively invested (assuming a 5% withdrawal rate per annum).

Exhibit 5: Value of $10,000 over 30 years



30-Year Investment Horizon	
Future Value, 7% return and $1,000 annual investment	$170,583
Monthly payment, 5% withdrawal	$711
Future Value, 10.1% return and $1,000 annual investment	$346,956
Monthly payment, 5% withdrawal	$1,446

*The S&P 500 has returned 9.6% per annum since inception through 3/31/2014. The 7% return assumption was chosen to be conservative relative to historical returns.

Clearly, plan sponsors and advisors can better help clients and plan participants and meet their goals by carefully selecting active managers.

MANAGER DUE DILIGENCE

Given the benefits of alpha generation, an investor needs some tools to make a well-informed decision in selecting active managers. A rigorous discipline must be applied in forming alpha expectations and assessing risk.

Confirming Kahneman's expectations, it is common practice in selecting managers to assume, tacitly, if not explicitly, that managers will continue to earn whatever alpha they have earned most recently in the past. The ease of this approach is apparent, but it creates a false sense of comfort. There is substantial evidence that past performance is, at best, a weak predictor of future results.

At Winslow Capital we have referred to a manager's "preferred habitat" as a way to describe why many active managers are only able to add alpha in certain market environments. There are essentially three styles of active investment opportunities in the growth universe: stable long-term growers (e.g. Starbucks over the last decade), cyclical growth companies (e.g. Union Pacific Corporation post Great Recession) and newer faster companies (e.g. priceline.com in recent years). Active managers who lack balance between these growth subsets tend to only perform well in specific environments. For example, coming out of the Great Recession, quality cyclical performed well, whereas in the late 90s newer faster companies led the stock market.

While past performance should not be ignored in the search for a competent manager, it is best used in conjunction with robust qualitative and quantitative analysis. Qualitative factors include the well-documented need to review people and process. The investment management consultant community has adept procedures to assist with this review. These include:

- thorough analysis of the experience levels of the investment professionals;
- assurance of consistency in the application of the investment process that has generated the strong track record;
- detailed study of the resources available to the manager;
- consideration of the structure of the organization and the ability to retain outstanding professionals; and
- identification of portfolio construction methods which ensure that appropriate risk controls are in place.

LUCK VERSUS SKILL

Quantitative analysis should incorporate statistical significance. Statistical significance is a function of time, performance volatility and magnitude. The goal of the analysis is to try to tease out from the data whether the historical track record of a given investment manager is predictive of future performance.

Calculating **the t-statistic,** or measure of significance, for historic performance can be done, in essence, using the information ratio and the square root of time. Solving to find a significant two-tailed t-statistic of 2.131 and assuming a 0.5 information ratio (achievable for a top quartile manager) means that roughly 16 years of data are required. One-, three- and five-year track records are **not** statistically significant.

$$t = \frac{IR}{\sqrt{time}} = \frac{alpha}{\left[\frac{tracking\ error}{\sqrt{time}}\right]}$$

$$\text{Sample: } t = \frac{2.50\%}{\left[\frac{5.00\%}{\sqrt{time}}\right]} \approx 2.131$$

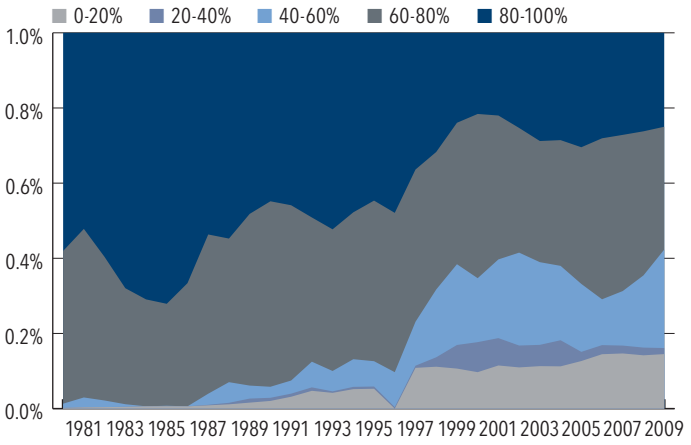
$$\text{Time} \approx 16 \text{ years}$$

Another approach is to study **active share**. Active share is the sum of the absolute value of all over weights and under weights in a portfolio relative to a benchmark divided by 2.

$$Active\ Share = \tfrac{1}{2}\sum_{i=1}^{N} |W_{fund,i} - W_{index,i}|$$

Former NYU Stern School of Business Professor Antti Petajisto has done much to popularize the concept of active share in the investment industry. In his 2010 paper, "Active Share and Mutual Fund Performance," Petajisto draws on broadly available Mutual Funds holdings data to map the decline of high active share funds from the 1980s to 2009. The percentage of U.S. equity mutual funds with high active shares declined by 70%. Exhibit 6 below details this evolution.

Exhibit 6: Evolution of Active Share over Time



Source: Antti Petajisto, 2010, "Active Share and Mutual Fund Performance," Working Paper. This figure shows the fraction of assets in U.S. all-equity mutual funds in each Active Share category. The bottom category with Active Share below 20% contains pure index funds, while the next two categories contain the closet indexers.

The author further divides the universe of mutual funds with assets greater than $10 million into five categories:

Stock Pickers — highest active share and somewhat high tracking error

Concentrated — highest active share and highest tracking error

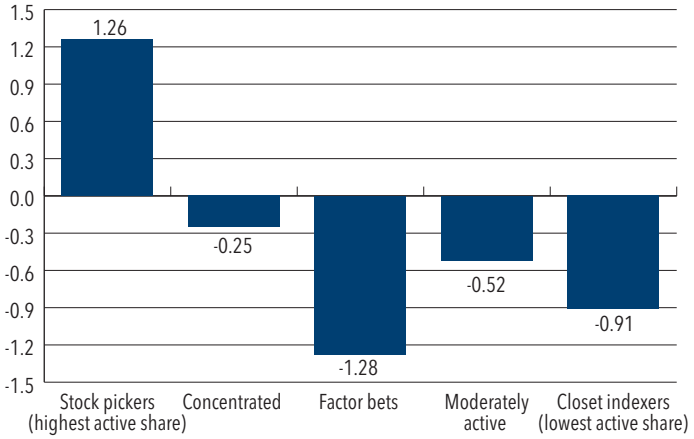
Factor Bets — medium active share and high tracking error

Moderately Active — medium active share and medium tracking error

Closet Indexers — low active share, minimal alpha

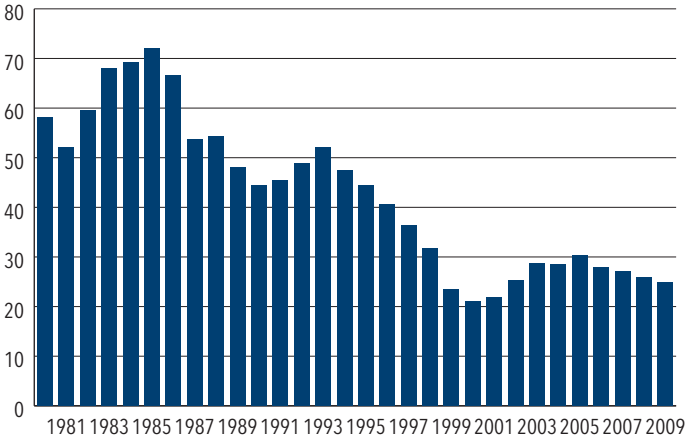
Over the 20-year period ending 2009, the only group to outperform after fees was the stock picker group. This same category has shrunk in importance, and, as of 2009, represented just one-fifth of mutual fund managers, as detailed in the Exhibits below.

Exhibit 7: Annualized net-of-fee returns for U.S. all-equity mutual funds 1990-2009 relative to their specified benchmarks



Source: Antti Petajisto, 2010. "Active Share and Mutual Fund Performance," Working Paper.

Exhibit 8: Share of Assets with Active Shares over 80% of U.S. Equity Mutual Funds

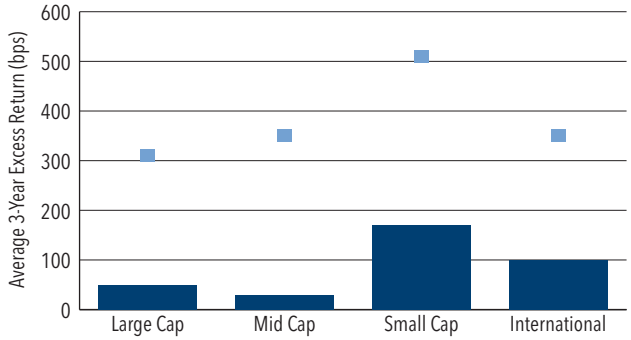


Source: Empirical Research Partners; Antti Petajisto, 2010. "Active Share and Mutual Fund Performance," Working Paper.

THE DIFFERENCE BETWEEN MEDIAN AND TOP QUARTILE MANAGERS

The success of top quartile funds makes investment due diligence worthwhile. For example, on a rolling basis, the median Large Cap manager outperformed the benchmark by 50 bps on average in all three-year periods of an R.W. Baird study, while top quartile managers added 310 bps of excess return during the same period. In fact, during this period the equity classes assessed all noted significant incremental returns by the top quartile managers.[3]

Exhibit 9: Average 3-Year Excess Return by Asset Class



	Large Cap	Mid Cap	Small Cap	International
Top Quartile	310	350	510	350
Median	50	30	170	100

Source: Morningstar Direct; Baird Analysis. For the 15-year period ended 3/31/12 excess returns for mutual funds were collected by asset class. The excess returns were calculated on a rolling 3-year basis and are gross of investment management fees.

FEES

Advocates of passive management frequently cite the fee differential between active and passive management as an additional reason to not attempt to find a strong active manager. In a recent report on the case for index-fund investing, Vanguard indicates the typical Large Cap active equity management fee is 82 bps, versus between 11-14 bps for index funds and ETFs.[4] However, with top quartile Large Cap managers generating nearly 310 bps of alpha, a typical fee differential of 70 bps is more than offset.

3 Baird, "Active vs. Passive Money Managers," by Baird's Advisory Services Research, 2012.

4 Vanguard, "The case for index-fund investing," by Christopher B. Phillips, CFA; Francis M. Kinniry, Jr., CFA; Todd Schlanger, 2013.

CONCLUSION

Qualitative and quantitative tools exist to allow investors to find active managers who will generate alpha ex post. The former requires a thoughtful review of people and process. The latter incorporates the predictive nature of active share and the calculation of a statistically significant track record. These active managers may be scarce but are well worth the effort given the potential for materially higher compounded returns.

DEFINITIONS

Active Share is a measure of the share of portfolio holdings that differ from the benchmark.

Alpha is a mathematical estimate of risk-adjusted return expected from a portfolio above and beyond the benchmark return at any point in time.

Information Ratio is a measure of the investment manager's skill to add active value against a given benchmark relative to how stable that active return has been. Essentially, the information ratio explains how significant a manager's alpha is. Therefore, the higher the information ratio, the more significant the alpha. It is the return of the portfolio minus the return of the index divided by the tracking error (standard deviation of alpha).

Tracking Error represents the standard deviation of the difference between the performance of the investment strategy and the benchmark. This provides a historical measure of the variability of the investment strategy's returns relative to its benchmark.

RISKS AND OTHER IMPORTANT CONSIDERATIONS

The information presented is the opinion of Winslow Capital. The information presented is subject to change without notice. Securities identified within the whitepaper are for illustrative purposes only to demonstrate the "three styles of active investment opportunities in the growth universe" referred to on page 4 of this paper. It should not be assumed that the securities discussed were profitable or that investment decisions made in the future will be profitable. The statistical analysis information is presented for informational purposes to illustrate an example of quantitative analysis. Such analysis may or may not result in profitable investment decisions. This whitepaper is for investment professionals and institutions only.