EVIDENCE-BASED INVESTING

THE CASE FOR PASSIVE PORTFOLIO MANAGEMENT

RESOURCE CONSULTING GROUP

Integrated Wealth Management Since 1988

The Case for Passive Portfolio Management

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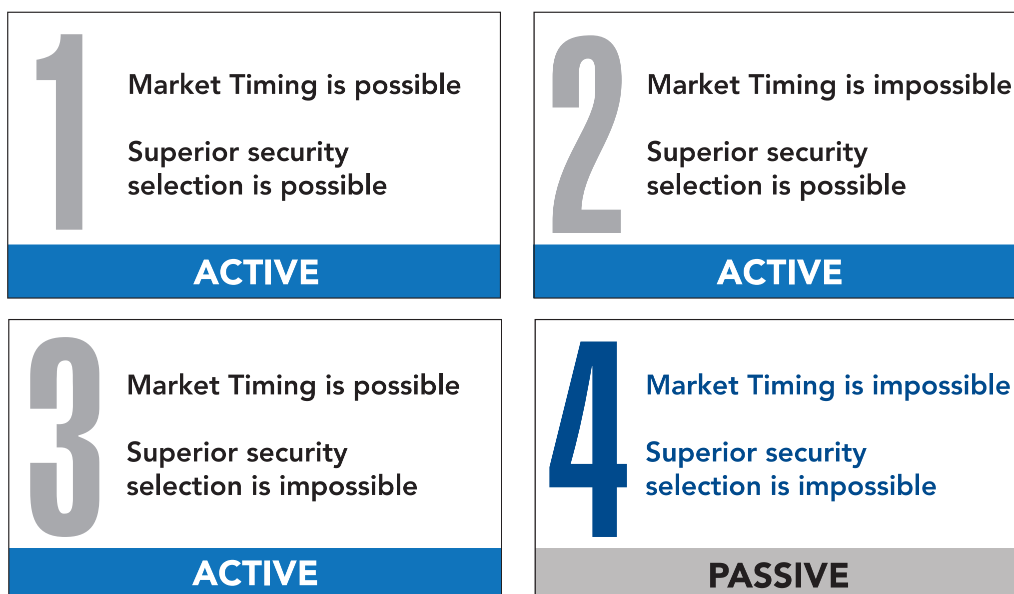
Introduction

All approaches to investing can be divided into two broad categories – active and passive. The proponents of each have dramatically different beliefs about the way capital markets behave and also which approach provides the most value to investors.

All investors must settle on a belief about market timing and security selection. The matrix below shows the four possible beliefs:



Source: Roger Gibson, ***Dow Jones Investment Advisor***, March 1996

Many individual investors fall into quadrant 1. These individual investors feel they have enough insight to determine when they should be in the market during good times and when they should be sitting on the sidelines during down markets. They also feel they have enough insight to determine which stocks will outperform the broader market. Most professional investment advisers fall into quadrant 2. These advisers feel that timing the market is not

consistently profitable, but choosing individual stocks (security selection) can add value to clients' portfolios. These active advisers are trying to add alpha to their clients' portfolios. Alpha refers to the incremental performance return above an index return. This position paper advocates quadrant 4 as the most prudent approach. This approach believes that timing markets is not only impossible, but can also lead to unnecessary tax consequences. It also subscribes to the theory that active stock pickers can't consistently outperform index returns. The data are clear regarding the ineffective nature of these active techniques.

Defining Active and Passive Management

Active investors (quadrants 1, 2 and 3) believe there is a constantly changing set of investment opportunities that can be captured by skillful investment managers. They buy and sell securities through market timing and stock picking to capitalize on these perceived opportunities.

Passive investors believe there is a relatively constant relationship between risk and reward that can best be harnessed by using a consistent strategy over time. They do not engage in market timing or stock picking. Instead, evidence-based (passive) managers seek to own a large basket of securities in predefined asset classes. They may be active in controlling costs, controlling taxes and rebalancing the portfolio, but they are passive with respect to market timing and stock picking.

Active Management Is a "Zero-Sum" Game

In active investment management, successes and failures exactly offset each other. For every active investor who wins, there must be one who loses. And, active management is costly, the average return of all active investors will be less than the average return of all passive investors. There is no debate about this point among knowledgeable investors in either camp. It is a mathematical fact.

The ongoing debate is over whether skill or luck divides the winners from the losers in this "zero-sum" game. Active managers with good performance believe it is due to skill; active managers with bad performance believe they are skilled and they are victims of bad luck. But it doesn't matter whether performance is the result of skill or luck – the real issue is whether the winners can be predicted in advance.

There Is No Empirical Evidence That Active Portfolio Management Skill Exists

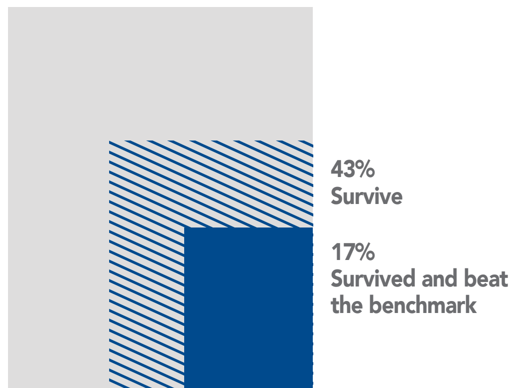
Clearly, some active managers with good performance can thank luck for that performance. Academic evidence goes beyond that and suggests most, if not all, of the performance results from luck.

The chart below shows that if one attempts to actively select stock funds, there is a good possibility that the fund will not even exist in 15 years. Of the equity funds available in 2000, only 43% were still available in 2015. Beyond that, only 17% of those stock funds outperformed their benchmark over the past 15 years

Few mutual funds survive and beat their benchmarks
15-year performance period ending December 31, 2015

EQUITY FUNDS

Beginning Survivors Winners



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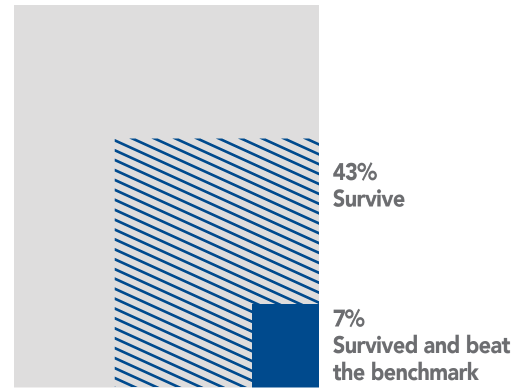
FUNDS AT BEGINNING

FIXED INCOME FUNDS

Beginning Survivors Winners



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FUNDS AT BEGINNING

Past performance is no guarantee of future results.
In US dollars. US-domiciled mutual fund data is from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago. Beginning sample includes funds as of the beginning of the 15-year period ending in 2015. The number of funds as of the beginning is indicated below the exhibit. Survivors are funds that are still in existence as of December 31, 2015. Winners are funds that survive and beat their respective benchmarks over the period. Funds are identified using Lipper fund classification codes and are matched to their respective benchmarks at the beginning of the sample period. Loser funds are funds that did not survive the period or whose cumulative return did not exceed their respective benchmark.

It doesn't matter what causes winners to be winners and losers to be losers if you can't predict results in advance. Winston Churchill said, "The greatest lesson in life is to know that even fools are right sometimes."

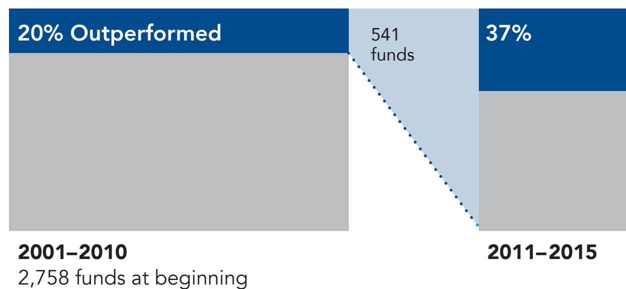
Investors, however, have a hard time accepting that active managers can't beat the market - hope springs eternal! It's like Garrison Keillor's characterization of Lake Wobegon, where all the children are "above average." Or automobile drivers, 80% of whom, according to a survey, consider themselves to be "above average" drivers. It can't be so!

But what about Bill Miller who managed Legg Mason Value Trust? From 1991 through 2007 the fund outperformed the broad market every year (a winning streak that no other fund manager has come close to matching). Then, in 2008, it dramatically underperformed the S&P 500, wiping out nearly 20 years of market-beating performance and was one of the worst performing funds in its asset class for the prior one-, three-, five-, and ten-year periods.

Many advisors acknowledge that most managers don't beat their respective indexes. However, they do not see it as a reason to abandon their quest to beat the market by picking the right mutual funds. After all, they argue, they plan to select only the best money managers – the average money manager need not apply. However, there is very little persistence among top performing mutual funds. Persistence measures the investment manager's ability to maintain their presence as a top performer. In the chart below, there were 541 outperforming US equity mutual funds (top 20%) from 2001-2010. Of these 541 top performers, only 37% remained a top performer from 2011-2015.

Resist Chasing Past Performance

Do Outperforming US Equity Mutual Funds Persist?



Some investors select mutual funds based on past returns. However, funds that have outperformed in the past do not always persist as winners.

Past performance alone provides little insight into a fund's ability to outperform in the future.

Only 37% of the 541 winning funds continued to win.

The graph shows the proportion of US equity mutual funds that outperformed and underperformed their respective benchmarks (i.e., winners and losers) during the initial 10-year period ending December 31, 2010. Winning funds were re-evaluated in the subsequent five-year period from 2011 through 2015, with the graph showing winners (outperformers) and losers (underperformers). Fund count and percentages may not correspond due to rounding. Past performance is no guarantee of future results. Data Source: Analysis conducted by Dimensional Fund Advisors using data on US-domiciled mutual funds obtained from the CRSP Survivor-Bias-Free US Mutual Fund Database, provided by the Center for Research in Security Prices, University of Chicago. Sample excludes index funds. Benchmark data provided by MSCI, Russell, and S&P. MSCI data © MSCI 2016, all rights reserved. Russell data © Russell Investment Group 1995-2016, all rights reserved. The S&P data are provided by Standard & Poor's Index Services Group. Benchmark indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Mutual fund investment values will fluctuate, and shares, when redeemed, may be worth more or less than their original cost. Diversification neither assures a profit nor guarantees against a loss in a declining market.

The Results of Passive Portfolio Management ARE Above Average

Successful people have a hard time letting go of the desire to be among the perceived winners. We hire experts in other areas of our life, so why can't we do it when it comes to investing? Passive investing sounds like accepting mediocre results and seems to eliminate the possibility of spectacular results. However, the cost advantage of an evidence-based approach alone causes passive investors to outperform active investors 75% of the time. Passive investing is not accepting mediocre results – it is a more reliable way of achieving above-average results and financial goals.

Passive Investing Is Safer and More Reliable Than Active Investing

You must decide whether you invest to achieve future economic objectives or whether you invest for entertainment. Many people invest at least in part for entertainment. If that is your purpose, you have a legitimate motive to pursue active investing for at least a portion of your portfolio. It is much more exciting than passive investing. You will have big winners and big losers. You will have interesting reasons for investing in this or that. You will be able to discuss market forecasts and hot stocks and have great stories to tell. Releases of quarterly economic data will be of interest to you.

But if you want to maximize the probability of achieving your financial goals, then an academic investing approach is the clear choice. Not only does passive investing yield a higher return and have significantly lower costs, but it does so at a dramatically lower risk. Active investors will dispute this point. They often cite safety as an advantage of active investing due to the fact that they accumulate cash or take other defensive positions from time to time. Remember, active investing is a "zero-sum" game. For every active investor who accumulates cash or takes a defensive position at the right time, there will be one who does it at the wrong time.

In order for active investors to offset their trading costs and commissions, they must have higher returns to beat the index. This can only be achieved by taking concentrated investment positions, which results in additional risk. Concentrations of risk come in several forms:

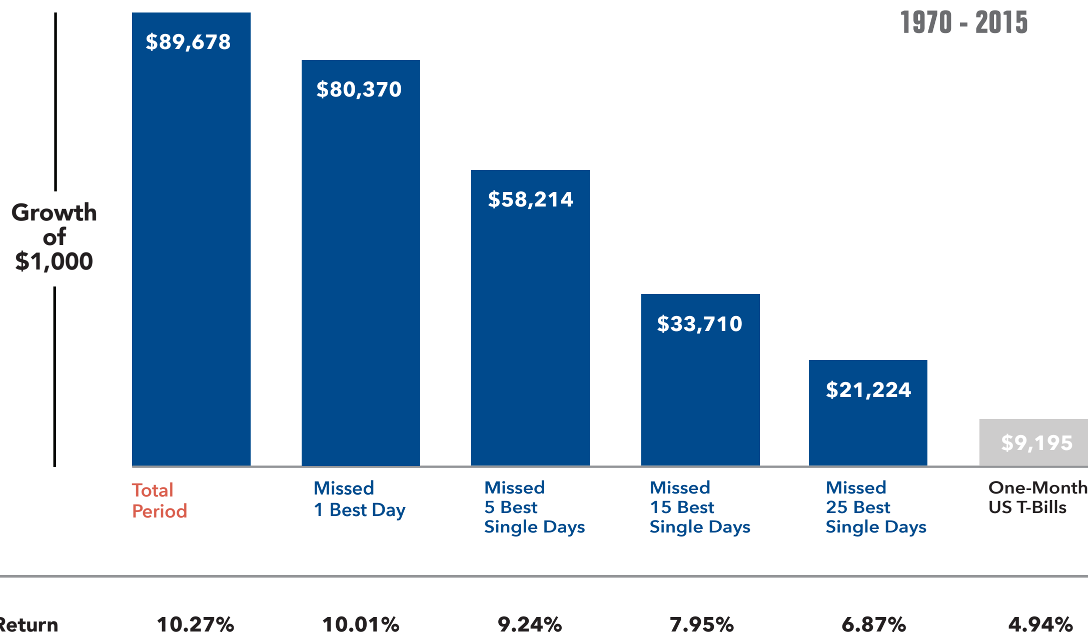
- Overweighting your investable assets to a few purported hot stocks
- Going from equities to cash in advance of a predicted market downturn then from cash to equities in advance of a predicted market upturn
- Overweighting investable assets in one or two sectors of the market that the active manager predicts will be the next area of the market to boom

Some active investors claim to mitigate their risk through very broad diversification. In doing so they eliminate the possibility of achieving the above average returns they are seeking through active investing. Broadly diversified active investors are simply expensive passive investors. Passive investing, which is grounded in science, is the only reliable approach to broad diversification.

Active investing through market timing is a risky way of increasing returns and has a low probability of success. Some economists have concluded that the risk in the stock market does not result from being in the market when it goes down. Rather, the risk comes from being out of the market when it goes up, because the advances are often extreme. The chart below illustrates the risk of being out of the market during several key “up” days.

Reacting Can Hurt Performance

Missing only a few days of strong return drastically impacts overall performance



In US dollars. Indices are not available for direct investment. Their performance does not reflect the expenses associated with the management of an actual portfolio. Past performance is not a guarantee of future results. Performance data for January 1970–August 2008 provided by CRSP; performance data for September 2008–December 2015 provided by Bloomberg. S&P data provided by Standard & Poor’s Index Services Group. US bonds and bills data © Stocks, Bonds, Bills, and Inflation Yearbook™, Ibbotson Associates, Chicago (annually updated work by Roger G. Ibbotson and Rex A. Sinquefield).

Everybody Wins With an Evidence Based Portfolio Strategy

Passive investing in one form gained popularity in the late 1990s. Many actively managed mutual fund families added an S&P 500 stock index fund. This was not due to enlightened thinking about passive investing. It was just chasing returns and money flow because the S&P 500 stock index produced unusually high returns in the mid to late 1990s.

There was a time when you could not achieve a well-diversified portfolio by using mutual funds. But now, every major asset class can be captured passively and portfolios can be engineered to have the desired exposure to various risk factors such as small stocks, value stocks, international stocks, emerging markets stocks, REITs, etc. Harnessing the returns of these asset classes efficiently is one of the keys to successful long-term investing. These asset classes produce much higher returns than most investors achieve.

While the record of active managers is not impressive, the record of individual investors is even worse. By chasing the mutual funds with good performance, individual investors achieved results even worse than the average actively managed fund. And, both are worse than the average passive fund.

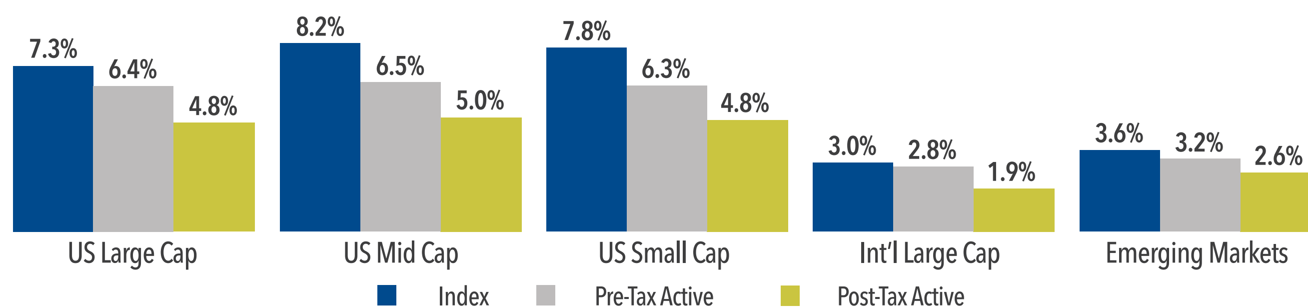
As an example, CGM Focus was the best performing mutual fund from 2000 through 2009, generating an average annual return of 18%. Unfortunately, the dollar-weighted investor's experience was -10%. This was a fund that had market-beating returns followed by significant troughs. Investors flocked to the fund following a stellar period just in time to experience devastating losses. They then left the fund at the bottom only to miss the next peak.

A study by DALBAR, Inc. shows that conventional active money management techniques actually resulted in substantially lower returns for investors. The average stock fund investor earned returns of only 5.2% per year over the 20-year period ending in 2014, while a simple buy-and-hold strategy in the S&P 500 returned 9.9%. The individual investors were either trying to time the market or chase a hot fund.

The Power of Passive

The following chart illustrates the power of passive investing after taking into account the fees, transaction costs, and taxes. It does not reflect additional strategies that could enhance returns such as tilts to small cap and value stocks.

Pre-Tax and After-Tax Active Management Performance Trails Market Indices
(Annualized Returns 10 Years Ending December 31, 2015)



Data Source: Morningstar Direct. Annualized returns for 10 years ending 12/31/2015.

Institutional Investors are Moving to Passive Investing

On the surface, it appears that institutional investors have less to gain than individual investors by adopting passive investing because they can bargain for lower fees from active managers. Despite the fact that institutional investors pay a lower percentage in fees, they pay a huge amount in dollar terms for active management because of their portfolio size. Therefore they are able to theoretically hire the best talent in active management.

For years, the California Public Employees' Retirement System (CalPERS), the country's biggest state pension fund, paid Wall Street billions of dollars to help finance the retirement plans of teachers, firefighters, police and other state employees. Now CalPERS, which has just more than $300 billion of assets under management as of June of 2015, plans to cut back drastically on those fees by severing its ties with half of the external investment managers of its funds.

While institutional investors can afford to hire the very best of active investment managers, they are increasingly moving to passive management, even though the cost advantage is less than 0.5%. Why shouldn't individual investors do the same? The cost advantage for individual investors adopting an evidence-based approach is usually more than 1% and can exceed 2% per year.

Passive Investing is Consistent with the Uniform Prudent Investor Act

The Uniform Prudent Investor Act (UPIA) has been adopted by most states in some version. Although the UPIA could easily be the subject of an entire paper itself, here are the major relevant points:

- A trustee who strays from the basic tenets of Modern Portfolio Theory (MPT) must carry a burden of persuasion as to the reasonableness of that approach. MPT refers to the process of reducing risk in a portfolio through systematic diversification across asset classes and within a particular asset class. It assumes that all investors desire the highest possible returns while bearing the lowest amount of risk, and that capital markets are generally efficient.
- The overall investment strategy should be based upon risk and reward objectives suitable for the trust.
- There is a duty to diversify unless the trustee reasonably determines that it is in the interests of the beneficiaries not to diversify. The UPIA goes beyond prior law in requiring diversification across asset classes, not just within an asset class.
- Asset allocation is the trustee's principal responsibility.
- Cost minimization is required.

Passive investing fits the bill because it focuses on the factors deemed relevant by the UPIA – Modern Portfolio Theory, asset allocation, broad diversification and cost control. Active management either focuses on factors that are deemed not relevant by the UPIA (market timing and stock picking) or are much more costly than necessary. Trustees are on much firmer ground with passive investing.

Summary

Passive investors who pursue a consistent, low-cost strategy over time reliably earn market returns and end up with performance exceeding the vast majority of average investors. The data are clear and active investors attempting to "beat the market" through stock picking or market timing are the ones who risk losing in the long run. Certainly, some active investors will gain over the short-term. More, however, will lose and some will lose big. All passive investors win in the long run.

Active management is exciting, expensive, and unpredictable. Passive management is dull, cost effective, and reliable. Where would you like your financial future to lie?

If you're interested in learning more about evidence-based investing, please contact us at 407-422-0252, or visit our website at www.resourceconsulting.com.

Disclosure

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301 East Pine Street, Suite 600, Orlando, FL 32801

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