

How to Invest Your Portfolio Using Passive and Active Management

Investors spend a lot of time deciding how to divide their assets between stocks and bonds, but often neglect a more fundamental question: Should I invest with a passive or active investment strategy? Taking the wrong route can be costly.

Passive management, also known as index investing, is an investment strategy that attempts to replicate the returns of an index or benchmark by owning the same assets, in the same proportions, as the underlying index. Contrary to the passive buy-and-hold approach, active management attempts to outperform the market through the art of stock picking and market timing. For example, a passively-managed large-cap fund would own all 500 stocks listed in the S&P 500® Index, whereas the active large-cap manager would try to pick the best 100 to 200 stocks listed in the S&P 500 Index for inclusion in a portfolio.

While it is human nature to strive for more than the average, in the investment world beating the average is more difficult to do than in the classroom, on the athletic field, or in the workplace. Successful active investing requires that managers identify market inefficiencies—and that advisors identify the managers who do this well on a consistent basis. In addition, to support necessary research and an active trading infrastructure, actively-managed funds spend more money on overhead and staffing, costs that may be reflected in the higher fees charged by active managers, thus making it even more difficult to beat the market averages.

As academics and investment experts continue to debate the merits of active and passive investment management, it's important that you base your own decision on a careful analysis of your investment goals and risk tolerance. The following information can provide a roadmap, or context, for your decision-making.

WHAT IS PASSIVE MANAGEMENT?

Again, passive management (often referred to as index investing), means investing in a way that attempts to replicate the returns of an index or benchmark by owning similar assets to the underlying index. Passive investing does not seek to capture any excess returns, but rather to match the performance of the index. Mutual funds and exchange traded funds (ETFs) are common vehicles used for passive investing.

Passive management rests on the assumption of market efficiency and a concept called the Efficient Market Hypothesis (EMH). Developed by Eugene Fama in 1965, EMH is a cornerstone to the passive versus active debate because it contends that stocks will always trade at a fair value price that reflects all available information at that time, thus no one stock can be deemed over

or undervalued at a given point. Modern Portfolio Theory (MPT) is primarily based on the EMH concept.

THE PROS AND CONS OF PASSIVE MANAGEMENT

Passive portfolios, or indexed portfolios, are market-driven, not manager-driven. Their broad, diversified exposure to the market, delivers the following benefits:

- **LOWER EXPENSES AND IMPROVED TAX EFFICIENCY** Since passive portfolios do not require managers to expend significant resources researching the market or selecting stocks, passive management should be less costly than active management. Further, because passively-managed investments track a market index, such funds usually enjoy relatively low portfolio turnover. Fewer trades mean lower transaction costs and less capital gains resulting in fewer taxable events.
- **COMPETITIVE PERFORMANCE** Within the context of the efficient market hypothesis, investing becomes a zero-sum game since markets are efficient and, as a result, fully reflect all relevant information. In theory, after adjusting for the impact of costs, the returns of passively-managed portfolios should be higher than most active portfolios.

Nobel laureate William Sharpe illustrates this most succinctly in his 1991 article, "*The Arithmetic of Active Management.*" Sharpe explains:

"If active and passive management are defined in sensible ways, it must be the case that:

1. Before costs, the return on the average actively-managed dollar will equal the return on the average passively-managed dollar; and
2. After costs, the return on the average actively-managed dollar will be less than the return on the average passively-managed dollar.

These assertions hold for any time period. Moreover, they solely depend on the laws of addition, subtraction, multiplication and division."¹

In fact, much recent academic research supports the notion that it is nearly impossible to beat a passive market portfolio over time after accounting for fees, costs, capital gains and taxes.

While the advantages are compelling, there may also be some potential disadvantages to passive management. Specifically, the limitations include:

- **MARKET RETURNS ONLY** Indexing is not about timing the market or hand-picking stocks. Rather, it seeks to generate market returns and does not seek to “beat” a benchmark’s return. Investors in search of—and who believe they can achieve—better-than-market returns will not realize those excess returns utilizing a passive investment approach.
- **NO ABILITY TO DEFEND AGAINST DOWN MARKETS** Generally speaking, passive investments offer pure, transparent exposure to an underlying index. Therefore, when markets are up, indexes (and the passive products that track them) take full advantage of the benefits. However, when markets decline, indexes have no reprieve from the fall.

WHAT IS ACTIVE MANAGEMENT?

Active management is an investment strategy where managers attempt to add value over the returns of an index by picking stocks based on models, insights, and analytical research. Unlike passive managers, active managers will not seek to match the risk and return profile of an index. They believe markets are inefficient and, therefore, stocks are often mispriced. Active managers will try to identify those stocks and exploit pricing inefficiencies to obtain excess return.

THE PROS AND CONS OF ACTIVE MANAGEMENT

There are two primary advantages that often prompt investors to pursue a manager-driven investment strategy:

- **POTENTIAL TO BEAT THE MARKET** Active proponents argue that pricing inefficiencies can be exploited by highly skilled managers. By taking active “bets” relative to the benchmark, or by assuming

more risk, active management contends that investors have the potential to realize excess returns relative to market returns.

- **POTENTIAL FOR PROTECTION IN DOWN MARKETS** In theory, active management potentially provides protection in down markets. Unlike indexed portfolios, which have no discretion to adjust cash reserves to serve as a cushion in declining markets, active proponents suggest that an actively-managed fund could hold more cash reserves, defensively positioning a portfolio to serve as a buoy in bear markets. Active management proponents also believe that highly skilled active managers can successfully predict market downturns—and that the downside protection can compensate for any underperformance in rising markets.

While the potential advantages are obvious, the disadvantages of active management are not as apparent:

- **HIGHER COSTS & FEES** In order to beat or simply break even with a passive strategy, actively-managed portfolios must create enough added value to offset their higher fees. For instance, if you were to use active management for the large cap core portion of your portfolio, on average, you would need to outperform by at least 0.70% (70 basis points) to compensate for the additional fees charged by active managers in this asset class.³ And, of course, higher turnover in active portfolios can result in additional costs. The more frequent buying, and particularly selling, of stocks in a portfolio may result in more capital gains and increased tax costs to the investor.
- **RISK & UNPREDICTABILITY** Active management requires that investors have complete confidence in their ability to hire the right manager who has the skill and ability to consistently outperform the market over time. Some studies suggest that most managers do not outperform the market and that any short-term outperformance has typically been unsustainable.

ETFs MAKE PASSIVE INVESTING EVEN MORE COST-EFFECTIVE

While passive index funds offer significant advantages relative to actively-managed funds, there is considerable variability within index funds in terms of expense ratios and tax efficiency. In many cases, ETFs can be the most attractive index choice.

ETFs are baskets of securities that track an underlying index to offer investors exposure to an entire market or market segment. Because ETFs are traded like shares on stock exchanges, they can be bought and sold at any time during the day, unlike mutual funds. In addition to providing investors with easy access to a wide range of securities, market sectors, geographies, and investment strategies, ETFs are often the most cost-efficient option.

In fact, ETFs offer a significant fee advantage over actively-managed and index mutual funds in virtually every asset class, most notably in the small-cap growth space. Small-cap growth ETFs cost just 0.39% on average, while their active mutual fund counterparts charge an average of more than four times that amount at 1.62%.²

ETFs also have proven to be more tax-efficient. Traditional mutual funds are required to pass any realized capital gains on to investors as a capital gains distribution. These realized capital gains could be the result of portfolio turnover related to portfolio manager decisions. Capital gains can also be realized due to fund redemptions, when the portfolio manager must sell securities to raise cash for redemptions. This distribution is taxable to the investor regardless of how long he or she held the fund shares.

Due to ETFs’ unique structure, capital gains distributions historically have been substantially lower than for mutual funds. For most investors, ETFs are bought and sold on the secondary market. As a result, when an investor sells ETF shares, there is no impact to the portfolio because the portfolio manager is not required to sell securities to raise cash for the redemption. Very large purchases and redemptions are handled with the creation or redemption of ETF shares as a basket trade with market makers. These “in-kind transactions” are not subject to capital gains taxes.

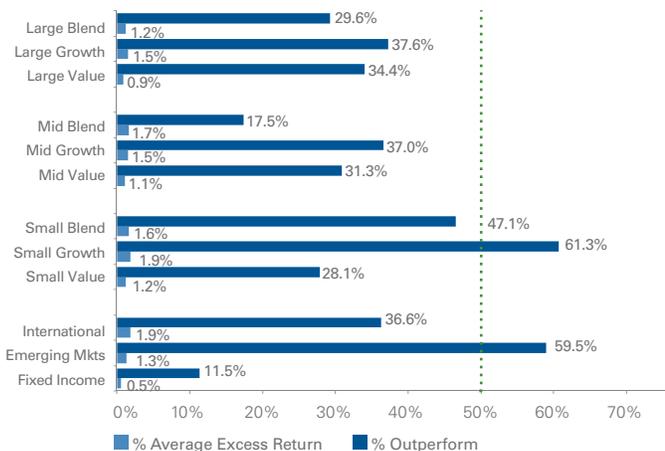
ACTIVE VERSUS PASSIVE: EVALUATING PERFORMANCE

While the theoretical case for passive and active investing is straight forward, evaluating the actual performance of passive versus active is more involved. Although results vary by asset class and time period, some patterns emerge. Historical evidence suggests that on average, active management may not add value—especially within the broader asset classes. Research conducted in the 1960s by Jensen (1968), Sharpe (1966) and Treynor (1965) found that, on average, active funds underperform their benchmarks on a risk-adjusted basis and that the magnitude of underperformance directly relates to the level of expenses.⁴

Notably, research suggests that the level of underperformance may even be understated as a result of “survivorship bias.” In other words, when evaluating the historical performance of funds, those funds that previously merged or no longer exist due to poor performance could not be counted. Research conducted from 1970 to 1990 made adjustments for survivorship bias and risk exposures, concluding that the average active fund fails to add value relative to its passive benchmark.⁵

More recently, when considering active fund performance over the 15-year period ended December 31, 2009 (Figure 1), more than 70% of active large cap blend funds and 63% of active international funds failed to outperform a relevant benchmark. Additionally, more than 88% of fixed income funds underperformed. However, there are categories in which active management fared better. For instance, more than 61% of small cap growth funds outperformed their corresponding benchmark, as did 59% of emerging market funds.

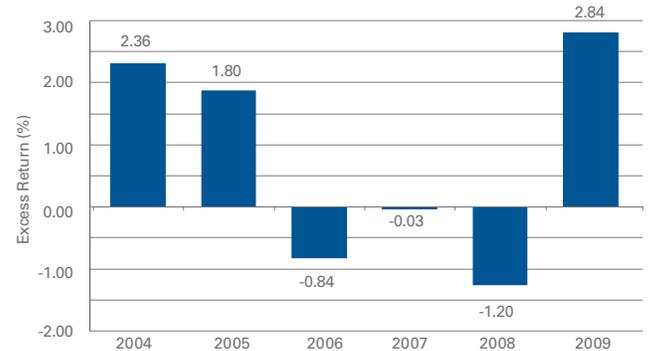
FIGURE 1: PERCENT OF ACTIVE MANAGERS OUTPERFORMING WITH AVERAGE EXCESS RETURN FOR OUTPERFORMING FUNDS—15 YEAR ANNUALIZED PERIOD



Source: Morningstar Direct, SSgA Strategy & Research as of 12/31/2009. Based on Morningstar data for the past 15 years, ending 12/31/2009. Chart shows the percent of active strategies that outperform the corresponding benchmark by category. Mutual fund performance is net of fees; index performance is gross of fees. The following indexes were used as benchmarks: Barclays Capital Aggregate Bond Index for Fixed Income, Dow Jones U.S. Total Stock Market Indexes for the respective domestic equities, the MSCI EAFE Index for international equities and the MSCI Emerging Markets Index for emerging market equities. For illustrative purposes only. Past performance is not indicative of future results.

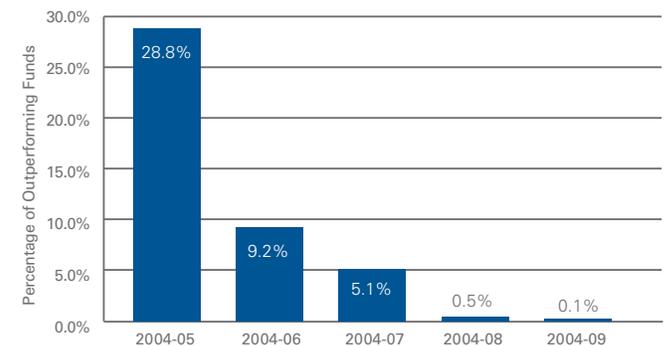
While outperforming active managers are difficult to uncover, they added between 90 and 190 basis points of excess return. However, research shows it is exceedingly difficult to identify a manager who can outperform consistently. For example, large-cap blend managers who outperformed in 2004 proceeded to underperform by an average of 27 basis points over the next four years although this group did outperform in 2009 by an average of 284 basis points (Figure 2).

FIGURE 2: AVERAGE SUBSEQUENT EXCESS RETURNS OF LARGE CAP BLEND FUNDS THAT OUTPERFORMED IN 2004



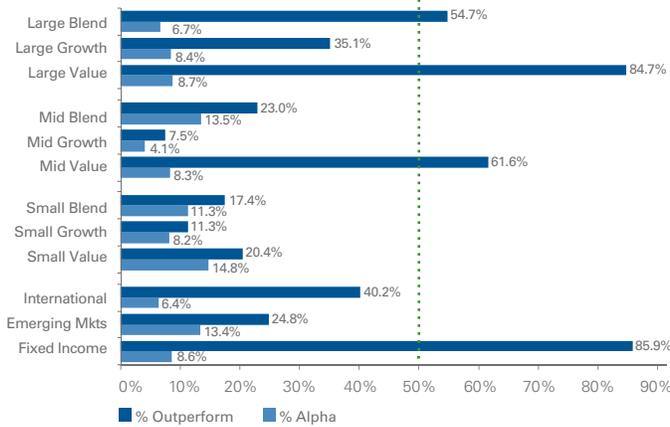
Source: Morningstar Direct, SSgA Strategy & Research as of 12/31/2009. Average outperformance of Large Cap Blend Universe for year 2004, subsequent performance for the same group of managers by year. Outperformance is relative to the Dow Jones Large Cap U.S. Total Stock Market Index. Members of the Morningstar Large Cap Blend Active universe include non index funds in the Morningstar US Large Blend category. Mutual fund performance is net of fees; index performance is gross of fees.

FIGURE 3: PERCENTAGE OF FUNDS OUTPERFORMING IN CONSECUTIVE YEARS



Source: Morningstar Direct, SSgA Strategy & Research, as of 12/31/2009. Average outperformance of Large Cap Blend Universe for year 2004, subsequent outperformance for the same group of managers by given time periods. Outperformance is relative to the Dow Jones Large Cap U.S. Total Stock Market Index. Members of the Morningstar Large Cap Blend Active universe include non index funds in the Morningstar US Large Blend category. Mutual fund performance is net of fees; index performance is gross of fees.

FIGURE 4: PERCENT OF ACTIVE MANAGERS OUTPERFORMING IN 2009



Source: Morningstar Direct, SSgA Strategy & Research as of 12/31/2009. Based on Morningstar data for the year 2009. Chart shows the percent of active strategies that outperform the corresponding benchmark by category. Mutual fund performance is net of fees; index performance is gross of fees. The following indexes were used as benchmarks: Barclays Capital Aggregate Bond Index for Fixed Income, Dow Jones U.S. Total Stock Market Indexes for the respective domestic equities, the MSCI EAFE® Index for international equities and the MSCI Emerging Markets Index for emerging market equities. For illustrative purposes only. Past performance is not indicative of future results.

In 2008 and 2009, market events put the active versus passive performance debate into sharper focus. The historic crash of 2008 and eventual recovery in 2009 created unprecedented market volatility and price dislocations. This should have provided active equity managers with a golden opportunity to outperform. Most actively-managed funds failed to take advantage of this

opportunity. In 2008, only in four categories—large-cap value, and the small-cap blend, value and growth categories—did more than 50% of active managers outperform their given benchmark. Similarly, only four asset classes saw a majority of active managers outperform a relative index in 2009. The most surprising asset class was fixed income. In 2008, only 8% of active fixed income funds outperformed the Barclays Capital Aggregate Index; in 2009, more than 85% outperformed.

MAKING YOUR DECISION

So, is outperformance by an active manager attributable to skill or luck? After adjusting for factor exposures to control for risk-taking, and adjusting for survivorship bias, studies found that repeated positive performance compares to the toss of a coin—with a probability of approximately 50%. It would seem, then, that luck and risk may explain most active manager outperformance.

Accordingly, to make the best decision on whether a passive or active investment approach is right for you, it’s wise to circle back to what you know, and what you can control—your investment goals and the level of risk you can tolerate. Some financial advisors use the FinaMetrica Scale of Investor Risk Profiles (Figure 5 below) to pinpoint risk levels and match investment strategies.

As you think about risk, remember, there is no free lunch. Risk and return are related. If you seek to avoid risk to keep your money safe, you’ll likely accept lower returns. If you welcome risk as an opportunity to reap greater rewards, you may achieve higher long-term returns, but it’s likely you will have to stomach some short-term losses along the way.

FIGURE 5: FINAMETRICA SCALE OF INVESTOR RISK PROFILES

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7
ATTRIBUTES	RISK AVERSE						RISK RELAXED
ATTITUDE TOWARDS RISK	Risk equals danger to these investors, who have little confidence in their ability to make good financial decisions.	Risk equals danger or uncertainty; investors in this group adapt to poor decisions uneasily.	Risk relates to uncertainty, yet they are prepared to take a small to medium degree of risk in their investments. They are usually confident in their decisions.	Risk represents uncertainty to these investors. They have a reasonable amount of confidence in their ability to make good financial decisions.	Risk equals opportunity and a medium degree of risk is acceptable. They have a reasonable amount of confidence in their ability to make good financial decisions.	Risk equates to opportunity, a large degree of risk is acceptable. They have a great deal of confidence in their ability to make good financial decisions.	These investors think of risk as an opportunity or thrill, and they have complete confidence in their ability to make good financial decisions.
FINANCIAL PROFILE	Always more concerned with possible losses than possible gains.	More concerned with possible losses than possible gains.		Still usually more concerned with possible losses than possible gains.	More concerned with possible gains than losses.		Always more concerned with possible gains than possible losses.

Of course, this scale is only one tool to assess your risk tolerance. For a fuller picture of how your beliefs and risk tolerance might steer you toward a passive, active or blended investment approach, ask yourself:

- What is my tolerance for underperformance?
- How comfortable am I with taking on active risk?
- Do I believe markets are efficient or inefficient?
- Do I believe skill-based managers can add value?
- How confident am I in my ability to select top performing active managers?

FIGURE 6: PASSIVE VERSUS ACTIVE DECISION TREE



LOOKING AHEAD

In spite of the benefits of passive funds, active funds continue to dominate market share; 78.5% of mutual fund assets were invested in active funds at the end of 2009. However, index investments have been growing. In fact, over the last nine years, active managers have consistently lost market share to their passively-managed counterparts. And, particularly in the aftermath of the recession when actively managed funds failed to protect on the downside and investors continue to re-assess their tolerance for risk, it's likely the trend toward passive investing will continue.

The benefits of passive investing include reduced costs and tax efficiency—and, historically, passive funds have outperformed a majority of active funds. However, proponents of active investing stress that there are always market anomalies that can potentially be exploited by active managers. In today's transitioning market, the right approach may be a sophisticated strategy that leverages the very best of passive and active management. In this way, you can customize your portfolio and incorporate the benefits that each methodology has to offer.

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¹ Sharpe, William. "The Arithmetic of Active Management." *The Financial Analyst's Journal*. Vol 47, No 1, Jan-Feb 1991, pp7-9.

² Morningstar Direct, SSgA Strategy & Research as of 12/31/2009.

³ Morningstar Direct, SSgA Strategy & Research as of 12/31/2009.

⁴ Laux, Dr. Paul A. "Traditional Approaches to Investing in Common Stock: A Modern Perspective." Teaching Note 2B Fall 2003 for course BAFI 429: Investment Management. Weatherhead School of Management at Case Western Reserve University. 2003.

⁵ Malikel (1995), "Returns from Investing in Equity Mutual Funds 1971-1991."

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Passive management and the creation/redemption process can help minimize capital gains distributions.

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