

# A MORE BALANCED NARRATIVE

## Setting the Record Straight on Active Management

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### Abstract

The tug of war between active and passive investment strategies has grown increasingly one-sided in recent years. This paper examines the current narrative surrounding the two styles and challenges the conventional wisdom driving the three most common criticisms of actively managed investments: that active managers don't outperform their indexes, that active managers can't outperform their indexes, and that identifying above-average active managers isn't possible. The paper presents a more balanced discussion of the factors that drive relative performance between active and passive investing, examines the methodologies for comparing the two approaches, and argues that passive investing is raising the bar for active managers. Active and passive strategies can happily coexist and both offer distinct benefits. Only when investors abandon the false dichotomy that one is good, the other bad, will they be able to build more optimal portfolios.

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## Introduction

No one can dispute the success of passive investing. Over the past 10 years, broad market indexing has yielded strong performance, at low fees, with compelling tax benefits. This winning combination has resulted in significant investor flows into passive strategies of nearly every stripe. An estimated \$1.2 trillion has gone into index funds in the 10 years ending December 2018.<sup>1</sup> Moreover, according to Morningstar, at the end of August 2019, the assets in passive US equity funds surpassed those of actively managed US equity funds, by a margin of \$4.27 trillion to \$4.25 trillion.<sup>2</sup>

Not surprisingly, the success of indexing has had an enormous impact on a closely-related area of the investment ecosystem: the active management industry. While active managers still control a greater percentage of total assets globally, they've been losing ground as they deliver uneven results across categories and styles. The drawdown has been driven, in part, by an assault on active managers from many academics and practitioners, as well as much of the financial media.<sup>3</sup>

Over the years, the attacks on active management have generally come in the form of three arguments:

- 1) Active managers – on average – *don't* outperform their indexes.
- 2) Active managers – on average – *can't* outperform their indexes.
- 3) Even if some active managers can outperform their indexes, there is no way for investors to identify outperforming managers in advance.

Indexing proponents would have you believe that it's an open and shut case: active management is a waste of money most of the time and in most areas of the market.

But while these attacks aren't completely without merit, active management has been unjustly vilified. In this paper, we show that these criticisms range from only partially true, to highly questionable, to outright contradictory. Taking a deeper look at these topics yields a much more nuanced understanding of the pros and cons of both active and passive investing styles. To be clear, nothing in this paper is intended to undermine the considerable benefits of passive investing. In fact, given their differences, the styles can diversify each other and work well together.

Our goal is to push back against the oversimplified conventional wisdom that “passive is good and active is bad,” and present a more balanced narrative. We also seek to identify some of the variables that drive the relative performance of active and passive investment styles over time. We conclude with some thoughts about what active management might look like in the future and how it can better compete with passive indexing.

### A Note on Terminology

Throughout this paper, when we talk about *passive investing*, we are talking about investing in a way to replicate the performance of broad indexes. We use the terms “passive investing,” “passive indexing,” “index investing,” and “indexing” interchangeably to refer to this type of investing.

Of course, indexes don't have to be broad-based: they can focus on a sector or on a theme or on a group of stocks with similar characteristics. The increasingly popular “smart beta” ETFs use these custom or “bespoke” indexes as the basis of their investments. Yes, these are indexes, but they're not entirely passive. They combine aspects of both active and passive investments and are not being considered when we talk about “passive” or “indexing” in this paper.

<sup>1</sup> Investment Company Institute, [2019 Investment Company Fact Book](#) (Investment Company Institute, 2019).

<sup>2</sup> As reported in John Gittelsohn, “[End of an Era: Passive Equity Funds Surpass Active in Epic Shift](#)”, *Bloomberg*, September 11, 2019.

<sup>3</sup> The media narrative rarely highlights areas where active is outperforming. Stories about passive beating active are inherently more provocative than the reverse.

## Acknowledging Strengths and Shortcomings

We'd be remiss if we didn't start by acknowledging the key elements that have made indexing so popular. The first is strong performance relative to active managers in many categories. This point, however, needs some context. For structural reasons (which we'll discuss later), some benchmarks across asset classes or categories may be easier or harder to beat. For example, in recent years many active managers have lagged in the headline-grabbing US large-cap equity space, though they have been much more competitive in other asset classes. Suffice to say, while performance is mixed, indexers have more than held their own against active strategies in recent years.

The second reason indexing is so popular is because of the low fees that are synonymous with the approach. Let's face it – other things being equal, who doesn't like low fees? But this benefit needs some context as well. It's true that cost is an inherently important consideration in asset management; unlike most other products, the fees are a direct offset to what you're buying – the future total return of the product. However, cost is not the only consideration, because other things are rarely equal. Cost is important only in the context of the value of a product or service. Experience and common sense illustrate this point better: Most people wouldn't choose a physician based solely on price. Spam® is cheaper than filet mignon, but not many would argue that it's superior. On the other hand, few would complain about the higher fees of active management if all the strategies were trouncing their benchmarks. What investors should care about is whether they are *getting value for the fees that they're paying* (e.g., an appropriate level of outperformance or risk-adjusted outperformance after deducting fees).

Put another way, in the active/passive discussion, we need to put expenses in the right context. Fees are important to investors (which we'll further demonstrate later), but they should not be *all-important*. Value matters more, and much of the rest of this paper attempts to address whether active managers can create that value.

The third reason indexing has been gaining ground is because taxable investors are increasingly concerned about after-tax returns.<sup>4</sup> Tax efficiency is a major feather in the passive cap. Most indexes have low turnover, making those passive strategies relatively tax efficient from the start. Again however, two caveats are important.

On the one hand, the tax efficiency of passive strategies is often confused with the tax benefits of the exchange-traded fund (ETF) structure. While we won't go into detail on the nuts and bolts here, the ETF structure uses in-kind redemptions to minimize capital gains from the sale of securities. Any investment approach within this structure benefits from this tax advantage, so that the small number of actively-managed ETFs receive the same tax treatment as the larger number of passively-managed ETFs. In other words, this favorable tax treatment isn't an advantage for passive management per se.<sup>5</sup>

At the same time, there is nothing about an active investment strategy that makes it inherently less tax efficient. Active managers can choose to trade infrequently, hold securities for long periods of time, and employ various tax minimization strategies as they build or dispose of positions. Not all active strategies are tax efficient, but many are.

<sup>4</sup> Of course, tax benefits are not a consideration for the large proportion of investments made through retirement accounts. At the end of December 2018, more than half of the assets in equity, bond and hybrid mutual funds were in these tax-advantaged accounts (Investment Company Institute, *Fact Book*, 180).

<sup>5</sup> Policymakers could put open-end mutual funds on the same tax footing as ETFs by eliminating the taxation on distributions of realized capital gains. For a discussion of the merits of such a change, see Aron Szapiro, *ETFs are Tax Efficient, but Is That Sound Policy?* (Morningstar, February 2019). For an analysis of the sources of passive ETFs' tax efficiency, see Ben Johnson and Alex Bryan, *Measuring ETFs' Tax Efficiency Versus Mutual Funds* (Morningstar, August 1, 2019).

# #1 - Active Managers Don't Outperform: The Empirical Argument

## Questioning the Assumptions

Before jumping into the data, a word of caution: Any analysis of the outperformance or underperformance of active managers is, to a greater or lesser extent, biased by the assumptions and the data used to reach those conclusions. For example, an analysis of mutual fund performance involves an array of decisions about which share classes to use (all of them? only the largest? only the oldest? asset-weighted?), which time periods to consider, and how to handle benchmark comparisons (with or without index fees?). In the institutional space, another question arises around whether to evaluate strategies net of fees or gross of fees; looking at returns before fees can make comparisons easier because individual accounts may have different fee schedules.

Assumptions about survivorship bias are also important, since they have an outsized effect over long periods and some studies have raised questions about whether that effect has been correctly interpreted. The standard methodology for measuring success or failure rates includes all funds at the beginning of the measurement period in order to eliminate survivorship bias. However, these results may be misinterpreted by investors who incorrectly assume that all funds no longer in existence today were liquidated due to poor performance. While this is certainly true in some cases, many funds are liquidated for non-performance reasons such as fund mergers, strategy overlap, manager retirement, lack of scale, share class consolidation, and so on. To be sure, looking only at surviving funds biases the results in favor of active managers, but to assume all liquidated funds were underperformers biases the results in favor of passive.<sup>6</sup> The truth lies somewhere in between.

Another key – but often overlooked – choice is whether performance is measured on a total return basis or a risk-adjusted return basis. The standard industry convention is to use total returns, not risk-adjusted returns.<sup>7</sup> This preference is perhaps more intuitive given that total returns are the returns investors experience. However, in academic circles, returns are often risk-adjusted for any number of factors (like volatility or other risk premia). This adjustment is designed to correct for the fact that active management results could be biased upward (by taking on additional risks) or downward (by steering away from risk). It's this adjustment for risk that separates simple “excess return” from true portfolio “alpha.”

**TABLE 1**

**Assumptions and Biases in Evaluating Active and Passive Performance**

Gross versus net

Benchmark index (no fee) versus index funds (with fee)

Broad benchmark versus prospectus benchmark

Share class choice: all? largest? oldest? asset-weighted?

Time period/horizon

Survivorship bias: all funds or existing funds?

Distribution cost: include or exclude non-investment fees?

Total returns versus risk-adjusted returns

<sup>6</sup> See Juhani T. Linnainmaa, “Reverse Survivorship Bias”, *Journal of Finance* 68, no. 3 (June 2013): 789-813.

<sup>7</sup> Both the Morningstar Barometer and the primary SPIVA report discussed below are based on total returns, though SPIVA publishes an additional report based on risk-adjusted returns.

This is not an attempt to gaslight academics or researchers studying active and passive management. It's simply a reminder that results are dependent on assumptions and far from precise. A look at two popular "scorecards", the Morningstar Active/Passive Barometer and the S&P Index Versus Active (SPIVA) report illustrate this point.<sup>8</sup> For the three years ending 2018, Morningstar reported that 59% of mid cap growth funds outperformed the passive alternative while SPIVA reported that only 46% of mid cap growth funds outperformed. The dispersion between the two scorecards was even wider in small cap growth where Morningstar reported 51% of active funds outperforming to SPIVA's 24%.<sup>9</sup>

These frequently-cited scorecards arrive at different conclusions about the success or failure of a category of active managers because they make different assumptions. For example, the Morningstar Barometer measures passive performance using the returns of a group of index funds and ETFs (which include the impact of fees), while the SPIVA uses the index return alone (without subtracting fees). Another important difference is that the Morningstar Barometer asset weights all share classes to arrive at a fund's total return, while SPIVA bases its analysis on the largest share class.<sup>10</sup>

In many cases, the performance differential is obvious. When 90% of active managers underperform in a particular category over a particular period, it's pretty clear the index was tough to beat, regardless of your assumptions. However, data showing 55% of active managers outperforming in a category shouldn't be deemed success, just as 45% outperformance shouldn't be considered failure. **Active/passive performance comparisons can offer insight, but they are hardly precise.**

## The Results by Style and Asset Class

So what does this somewhat subjective data show? Using the two reports, with data through December 2018, a theme emerges: in many categories, passive has provided tough competition, but it's hardly been a clean sweep. The data shows that in many fixed income categories, active managers have done quite well versus passive alternatives. (Not a small thing, since bonds are still pretty important in portfolio construction.) Other areas where active management has proved its worth in specific periods include US small and midcap stocks, emerging markets, and foreign small-to-midcap stocks.

To read the headlines, you'd think active management lags in all places and nearly all times. In fact, it's largely in US large cap stocks that the data has been sub-par recently for active managers, but this is hardly the message investors hear. Yet the difficulty that US large cap blend managers have had beating the S&P 500® – the largest category with the most well-recognized benchmark – has been incorrectly extrapolated to convict active managers across all the other categories.

Moreover, we shouldn't forget that the scorecards give equal weight to all mutual funds. However, the results of active management generally improve when returns are asset-weighted. In other words, the average investor dollar does better than a quick reading of the scorecards would suggest.<sup>11</sup> We'll come back to this point later.

The takeaway is this: A broad view of performance across asset classes and categories shows that active/passive results are decidedly mixed. Active managers are doing well in some categories and poorly in others. **The narrative that passive is winning almost everywhere isn't supported by either standard total return comparisons or asset-weighted return estimates.**

<sup>8</sup> Ben Johnson and Adam McCullough, *Morningstar's Active/Passive Barometer: February 2019* (Morningstar, February 2019). Aya M. Soe, Berlinda Liu, and Hamish Preston, [SPIVA U.S. Scorecard](#) (S&P Dow Jones Indices, year-end 2018).

<sup>9</sup> Technically, SPIVA expresses results in terms of the percentage of funds that have underperformed. For example, for the three years ending 2018, SPIVA reports that 54% of mid cap growth funds and 76% of small cap growth fund underperformed.

<sup>10</sup> Morningstar and SPIVA also use different classification criteria, so the funds included in a category may differ between the two scorecards.

<sup>11</sup> Morningstar includes asset-weighted returns in its Barometer; see Johnson and McCullough, *Barometer*, 5. For an academic study of asset-weighted returns, see Jonathan B. Berk and Jules H. van Binsbergen, "[Measuring skill in the mutual fund industry](#)," *Journal of Financial Economics* 118, no. 1 (October 2015): 1-20.

## Results Across Time

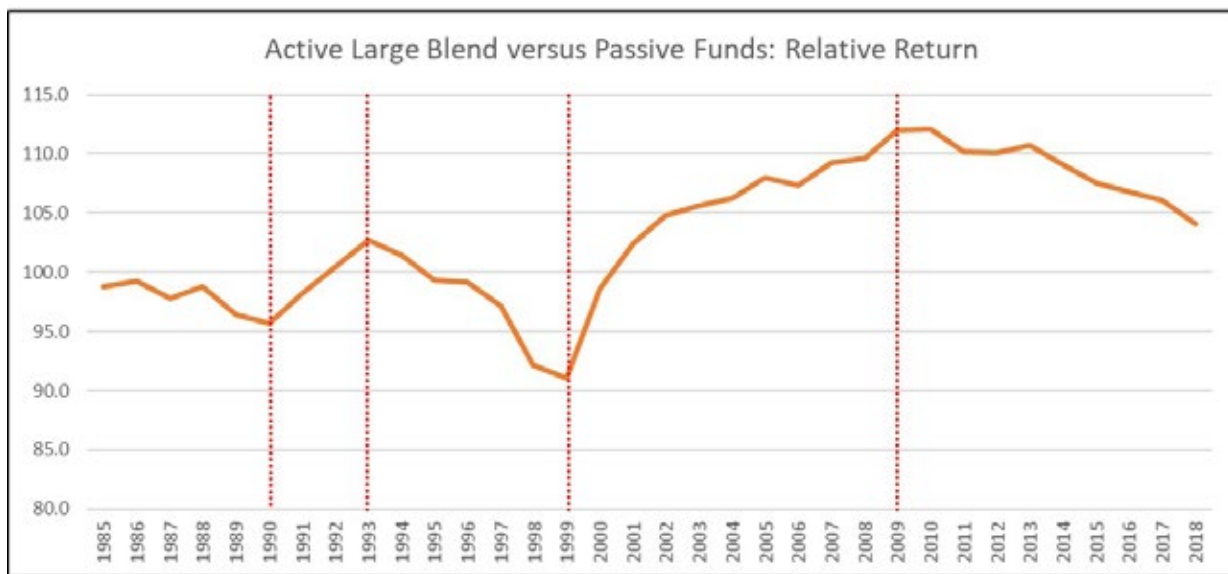
Time frames and market cycles also affect the evaluation of results. In many categories, active management comes in and out of favor over time. For example, the Morningstar Active/Passive Barometer through December 2018 reports that active managers in the Global Real Estate category:

- Generally outperformed with more than half (52%) beating the index alternative over the previous 5 years.
- Got crushed by passive funds over the past 3 years, with only 10% outperforming.
- Dominated the category in the previous 12 months, with 72% outperforming the passive alternative.

Similarly, in Foreign Small-Mid Blend, 71% of active managers outperformed over the 10-year period but only 19% outperformed in the previous three-year period.<sup>12</sup>

There can also be an element of cyclicity to returns. Reviewing the data from the US Large Cap Blend category (because it gets the most scrutiny), a pattern emerges. Active Large Cap Blend lagged the S&P 500® in the latter half of the 1980s (with the Crash of '87 a big exception). Active managers then went on a strong run from 1990 through 1994. Their relative performance trailed off in the late 1990s through the tech rally in 1999. Active managers then began to beat the S&P 500® handily for a decade through the great financial crisis. The past decade, as has been well documented, has again seen large cap blend managers fall behind the index.

### Exhibit 1



Source: Harding Loevner; Data source: Morningstar

**Exhibit 1** illustrates the multi-year cycles of relative return between active and passive strategies in the large cap blend universe from 1985 through 2018. It divides the cumulative return of Active Large Blend funds by the cumulative return of S&P 500® Index funds; both are indexed to 1984 (= 100). A rising line indicates outperformance of active strategies while a falling line indicates underperformance of active strategies.

There are plenty of examples, but the point is clear: Across asset classes and over time, the relative performance of active managers can come in and out of favor. **Sometimes active managers crush their benchmarks, and sometimes they get crushed. Again, this is a far more nuanced story than simply “passive good, active bad.”** Now we’ll address why that is the case.

<sup>12</sup> Johnson and McCullough, *Barometer*, 3.

## The Factors

In sum, there are periods when active managers tend to do well versus their passive benchmarks and periods when they do poorly – which suggests that there's something else at work than the conventional wisdom about asset managers' performance would suggest.

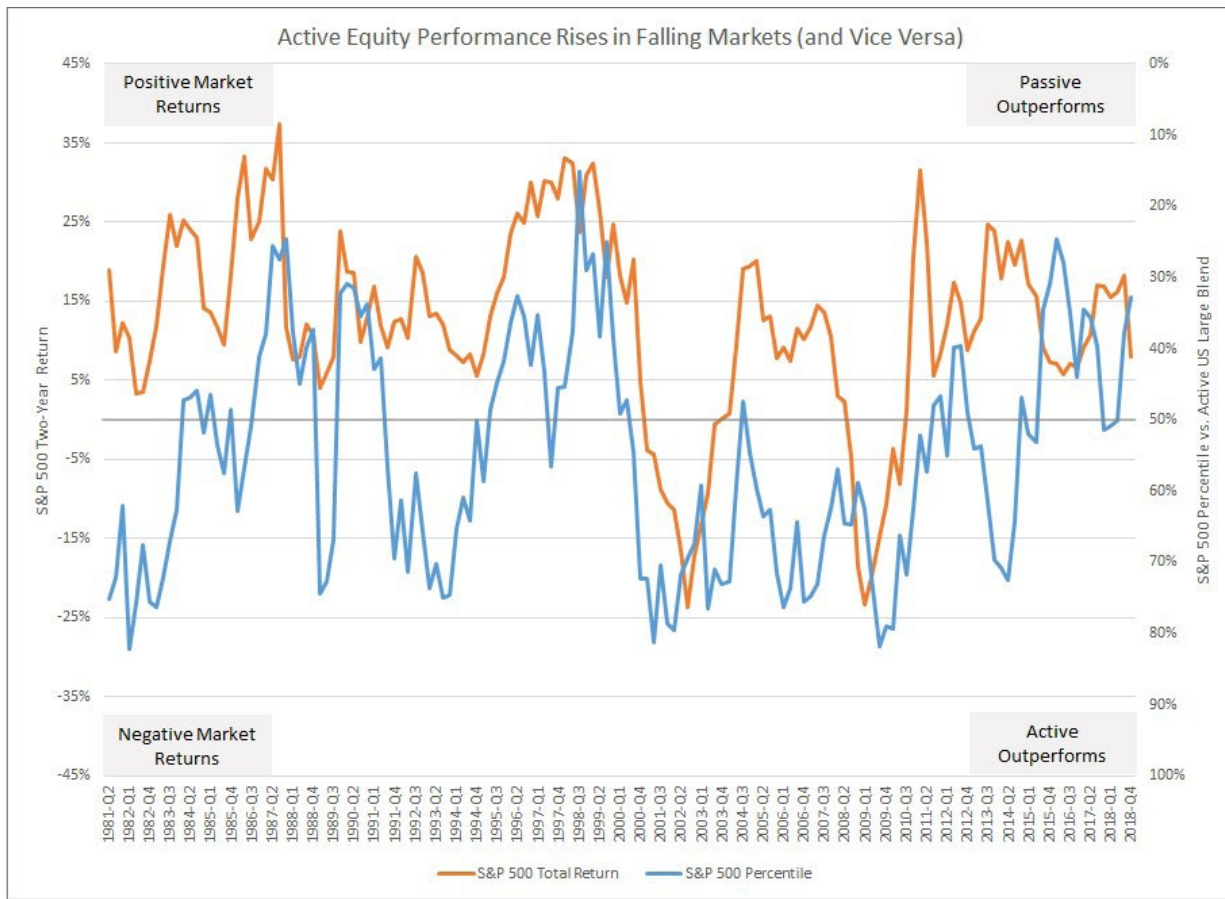
If it were simply the case that markets are too efficient for active managers ever to outperform or that generating alpha is a zero-sum game, how can we explain the cyclicity of active and passive results across time? (We'll come back to the zero-sum question in a bit.) If 75% of active managers beat their benchmark in one quarter and then only 25% beat it the next quarter, are we to conclude that the category or asset class became radically more efficient over 90 days, making it harder for active managers to prove their worth? Perhaps all the active managers were brilliant in the first quarter but incompetent in the next quarter? These catch-all explanations seem unlikely given that they cannot explain the variation in active results across categories and time periods

To draw meaningful conclusions, investors need to roll up their sleeves to understand how the portfolios of active managers in a particular category are systematically different – on average – than the holdings in their benchmarks. For example, if you add up the holdings of all US large cap blend managers, you will not get a portfolio identical to the S&P 500®. The broad differences in composition between funds and their benchmarks are often associated with factors that drive the relative performance of active managers over different time frames. Here is a partial list of differences in composition and the factors associated with them:

**Market Direction** – Mutual funds and other commingled vehicles often hold cash to meet redemptions or liquidity needs. Benchmarks, by definition, do not. All else being equal, holding cash is a performance headwind for active managers in rising markets and a tailwind during falling markets, measuring against the benchmark. That's not a theory – it's math. To be clear, this does not mean that active managers will outperform, on average, during falling markets, as there can be many factors at work that could offset the cash effect. However, in isolation – remember, *holding all else equal* – falling markets improve the relative performance of active managers vs. benchmarks while rising markets hurt their relative standing.

Critics of active management might question why an actively-managed fund would hold any cash at all. "It's not part of the fund's mandate," they might argue. "Why should the manager get paid active fees for managing low-risk assets?" Fair enough, but cash holdings result in a lower risk profile for the fund, and many investors, even if they're not exactly focused on risk-adjusted performance, are very interested in reducing losses in market downturns. Plus, many active managers adjust the level of cash based on their market outlook, as part of their active decision-making process.

Exhibit 2



Data source: Morningstar

**Exhibit 2** illustrates the connection between market direction and the relative performance of active strategies from April 1981 through December 2018. It compares the total return of the S&P 500® (left axis, in orange) to the percentile rank of the S&P 500® measured against active mutual funds in the Morningstar US Large Cap Blend category (right axis, in blue) Both are measured quarterly on a two-year rolling basis. The graph shows that weaker (stronger) S&P 500® returns are often associated with better (worse) relative performance of active managers against the index.<sup>13</sup>

**Market Cap** – Equity mutual funds are often significantly different than their benchmarks when it comes to the market cap of their holdings, and this difference can have a big impact on performance. In fact, the majority of active managers in the large cap space do not maintain a market cap distribution similar to their market cap weighted benchmarks. More specifically, most large cap managers are underweight mega-cap stocks and tend to be overweight the smaller large-cap stocks.

According to Morningstar data as of August 2019, only 17% of active managers in the US Large Cap Blend category have a higher average market cap than the S&P 500® while only 23% had more exposure to mega cap names compared to the same benchmark.<sup>14</sup> In total, only 26% of those active managers had a larger portfolio size score (as defined by Morningstar) than the S&P 500® This should not be a surprise: because of portfolio constraints related to diversification and number of holdings, it's very difficult for active managers to be overweight (in aggregate) the biggest stocks in a large cap index like the S&P 500®.

<sup>13</sup> Correlation = -0.49; R2 = 24%. Note that the percentile series is inverted in the graph.

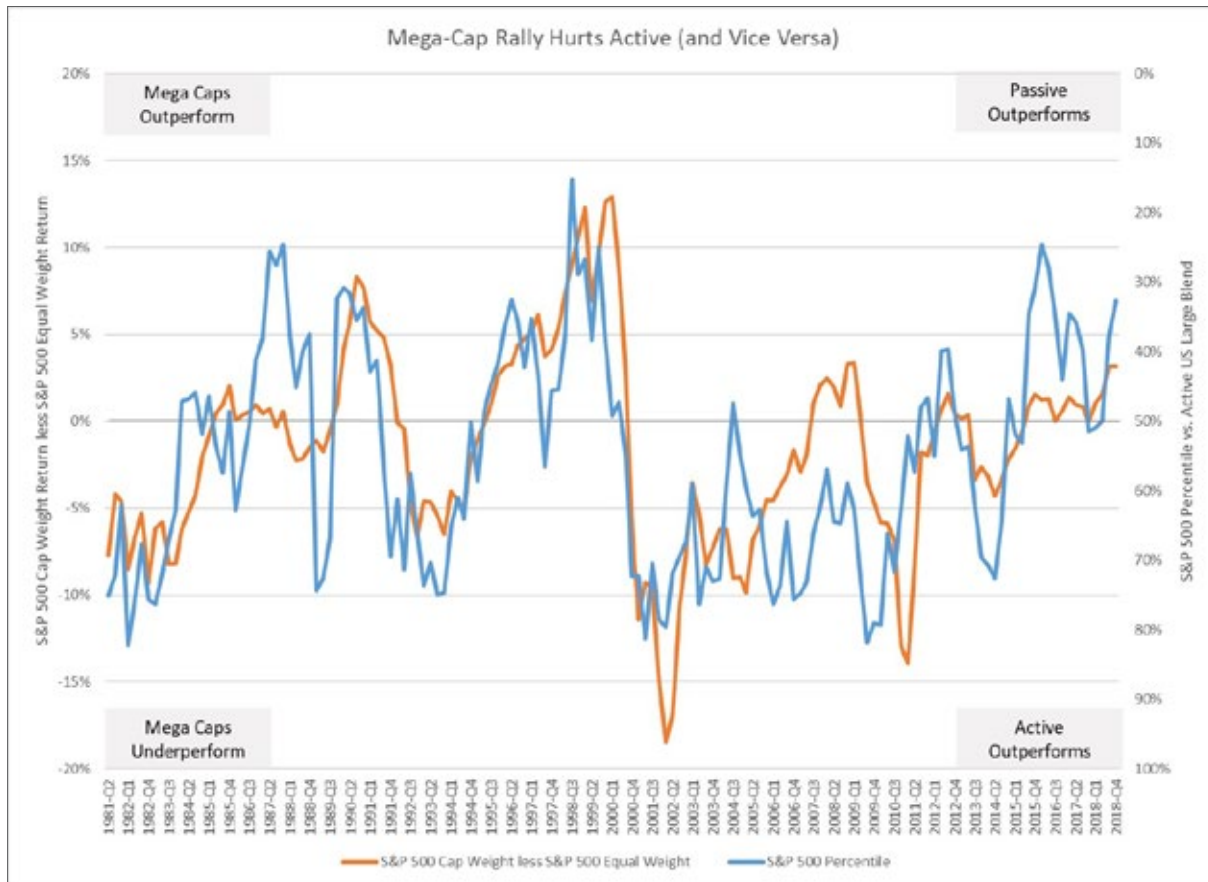
<sup>14</sup> Morningstar refers to these stocks as “giant” cap stocks.



To illustrate, given year-end weightings, an active manager who wanted to maintain a meaningful overweight, of +2.5%, say, to all the largest stocks in the S&P 500® would tie up over 80% of their fund with only 20 names. Yes, some managers may choose to be overweight the largest stocks, but in general across the large cap space, active managers run portfolios with, on average, somewhat smaller cap weightings.

As a result, when the mega-cap stocks underperform, the large cap indexes like the S&P 500® or the Russell 1000 tend to be easier to beat. Conversely, when the largest cap stocks outperform, this can be a significant headwind to active managers – again, holding all other variables constant.

**Exhibit 3**



Data source: Morningstar

**Exhibit 3** illustrates the connection between the performance of mega cap stocks and the relative performance of active strategies from April 1981 through December 2018. It compares the return differential between the S&P 500® (cap weighted) and the S&P 500 Equal Weight Index (left axis, in orange) to the percentile rank of the S&P 500® measured against active mutual funds in the Morningstar US Large Cap Blend category (right axis, in blue) Both are measured quarterly on a two-year rolling basis. (When the cap-weighted S&P 500® is outperforming the equal-weighted S&P 500®, mega cap stocks are performing well relative to the other stocks in the index.) The graph shows that the outperformance of mega cap stocks is often associated with better relative performance for the index against active managers. Likewise, when smaller large caps outperform, active strategies tend to perform better.<sup>15</sup>

Combine a decade-long bull market (market direction effect) with the mega-cap/FAANG<sup>16</sup> rally of the last four years (market cap effect), and it’s easy to see why the large cap equity indexes have been especially tough to beat recently.

<sup>15</sup> Correlation = -0.66; R2 = 44%. Note that the percentile series is inverted in the graph.

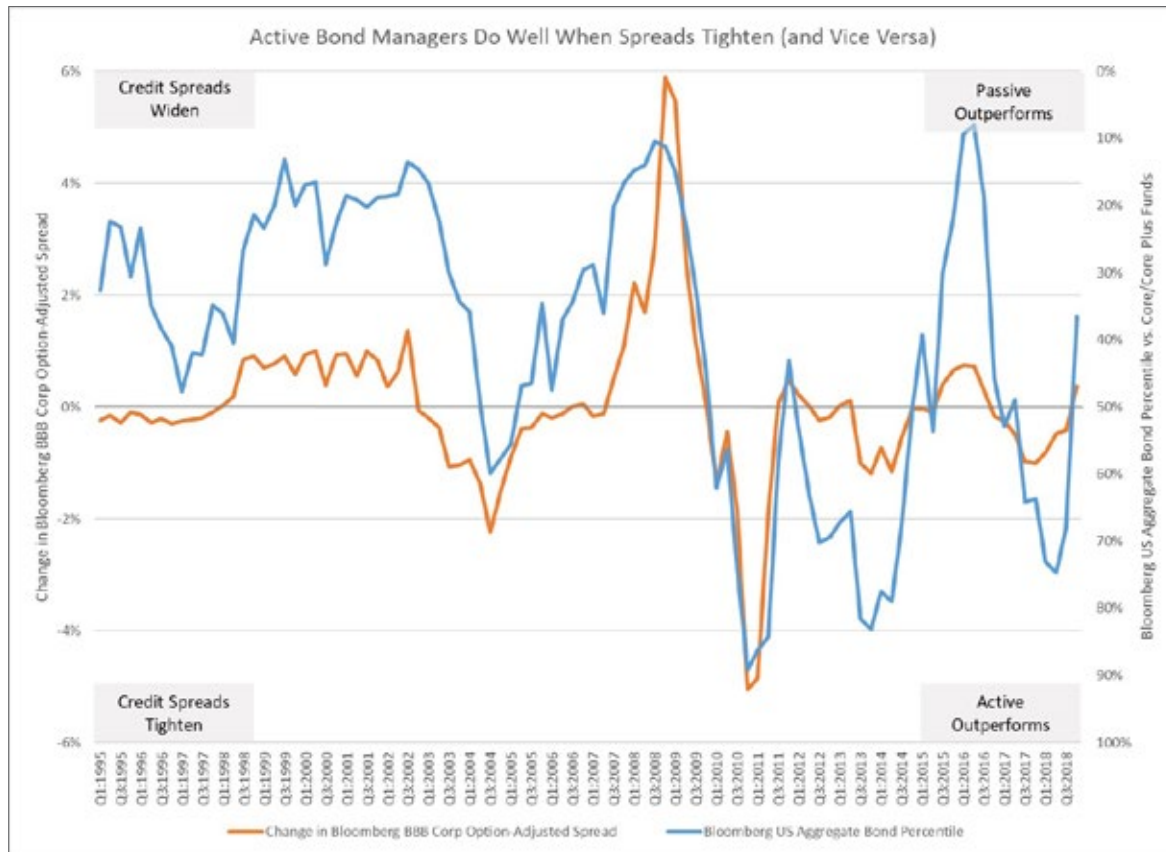
<sup>16</sup> FAANG: Facebook, Apple, Amazon, Netflix, and Google/Alphabet.

**Credit** – Switching to the fixed income space, as noted earlier, active bond managers have generally put up strong results against their passive competitors. While there are several factors that explain this outperformance, the credit environment plays a crucial role.<sup>17</sup> Because bond portfolios derive the bulk of their return from income, it's natural for active managers broadly speaking to enhance their portfolio income with higher yielding securities that incur greater credit risk.

According to Morningstar data as of August 2019, approximately 90% of managers in the Intermediate Core and Core Plus Bond categories (combined) have a lower average credit quality than the Bloomberg Barclays US Aggregate Bond Index. As a result, a tightening in credit spreads, which leads to the outperformance of lower-rated bonds, will tend to be a tailwind for active bond managers. Conversely, widening spreads and the underperformance of higher-yielding sectors would tend to be a headwind for active funds. If credit spreads are broadly unchanged, active managers simply pocket the enhanced yield associated with owning securities with lower credit quality. In this case, a market that is trading water tends to favor the active manager.

<sup>17</sup> See AQR Capital Management, *The Illusion of Active Fixed Income Alpha* (AQR Capital Management, December 2018). This study credits various risk premia as the source of excess returns, suggesting that these excess returns are not true alpha. However, the choice to overweight these factors is an active decision.

Exhibit 4



Data source: Morningstar

**Exhibit 4** illustrates the connection between changes in credit spreads and the relative performance of active strategies from January 1995 through December 2018. It compares the change in the Bloomberg BB Corporate Option-Adjusted Spread (left axis, in orange) to the percentile rank of the Bloomberg US Aggregate Bond Index measured against active mutual funds in the Morningstar US Intermediate Core and Intermediate Core Plus Bond categories (right axis, in blue) Both are measured quarterly on a two-year rolling basis. The graph shows that decreasing (increasing) credit spreads returns are often associated with better (worse) relative performance of active managers against the index.<sup>18</sup>

Our goal is not to catalog all the factors or market environments that will drive active managers' relative performance. We simply want to counter the conventional wisdom, namely that market efficiency or a lack of investment skill explains the rising and falling fortunes of active managers. **Due to some systematic differences, actively managed portfolios – in aggregate and on average – may not be identical, or even similar, to their category benchmarks. These differences, in combination with changing market conditions, go a long way toward explaining why active managers do well in some periods but not in others.**

<sup>18</sup> Correlation = -0.68; R2 = 46%. Note that the percentile series is inverted in the graph.

## #2 - Active Managers Can't Outperform: The Theoretical Argument

### The (Challenging) Arithmetic of Active Management

In 1991, William Sharpe wrote a seminal paper on the math that underlies the active-passive discussion.<sup>19</sup> The quick summary is that, when all assets are taken into consideration, alpha is a zero-sum game. One investor's gain (alpha or excess return) must, by definition, be another investor's loss (negative alpha or negative excess return). The power of this insight should not be underestimated. In practical terms, it means that when you do find alpha, you have to take it from another investor. In total and on average, there can be no positive alpha. Thus, consistent with this math, active managers who charge fees must, on average, underperform by their fees and other expenses. We'll seek to chip away at this framework, but the zero-sum argument sets a high bar for active management – at least in aggregate.

However, while Sharpe's arithmetic is compelling in theory, in practice it's far from airtight. As we already highlighted, a quick review of the empirical evidence indicates that, in many investment styles, the average alpha of professional active managers can be greater or less than zero before fees. To summarize, in some asset classes, professional active managers perform better than the zero-sum theory would allow while, in others, active managers lag the passive alternative by more than their fees and expenses. (Keep in mind that this underperformance violates the zero-sum theory just as much as outperformance does, because, in a strict sense, the theory states that the average active manager should underperform by *exactly* their fees and costs.) So while the idea that alpha is a zero-sum game is powerful, it's hardly iron-clad. Why does the empirical data not match the theory?

### Theory vs. Reality: Skew and Slippage

The zero-sum theory doesn't hold in practice largely because of how the industry measures the performance of active managers. Remember that the arithmetic of active management says that alpha is a zero-sum game in dollar terms and on all assets. However, typical active/passive results are not dollar weighted, nor are the assets held in a closed system. As a result, we have mismeasurement in two possible places.

First, remember how results are often reported: as the percentage of active managers who either beat or fail to beat their passive alternative.<sup>20</sup> Notice that what's being measured is the number of active managers, not the weighted dollar amount of their outperformance.

Because there's no requirement that the zero-sum of alpha is evenly distributed across managers, the percentage of managers who outperform (on a gross basis before fees) does not have to be 50%. For example, a category or asset class that has a few terrible managers – producing a lot of negative alpha – could be offset by a much greater number (percentage) of managers who are generating a small amount of positive alpha. Likewise, even under the zero-sum constraint, a category with a few really good active managers sucking up all the positive alpha will be offset by a larger number (percentage) of underperforming managers. As shown in Table 2, the net of zero-alpha could be skewed by returns or by the size of assets. In short, even if the zero-sum theory strictly held, there could still be categories when more or less than 50% of managers outperform/underperform. To put it bluntly, the "hit rate" is a flawed way to evaluate the success of active management.

<sup>19</sup> William F. Sharpe, "[The Arithmetic of Active Management](#)", *Financial Analysts Journal* 47, no. 1 (January/February 1991): 7-9.

<sup>20</sup> As discussed, both the Morningstar Barometer and the SPIVA report use this approach to evaluating funds. See Johnson and McCullough, *Barometer*, and Soe, Liu and Preston, *SPIVA U.S. Scorecard*.

TABLE 2			
Return Skew	AUM	Alpha in %	Alpha in \$
Manager A	\$100	+3%	\$3
Manager B	\$100	+3%	\$3
Manager C	\$100	+2%	\$2
Manager D	\$100	-2%	-\$2
Manager E	\$100	-6%	-\$6
<b>Total/Index</b>	<b>\$500</b>	<b>0%</b>	<b>\$0</b>

Zero-sum alpha, but 60% of managers outperform.

TABLE 3			
Size Skew	AUM	Alpha in %	Alpha in \$
Manager A	\$50	-6%	-\$3
Manager B	\$50	-4%	-\$2
Manager C	\$50	-4%	-\$2
Manager D	\$50	+2%	\$1
Manager E	\$300	+2%	\$6
<b>Total/Index</b>	<b>\$500</b>	<b>0%</b>	<b>\$0</b>

Zero-sum alpha, but 60% of managers underperform.

**Table 2 and Table 3** illustrate that due to a return skew or a size/asset skew, more or less than 50% of active managers or strategies in a category could outperform the index despite zero net alpha being associated with assets in total. (AUM = Assets under management; Alpha in % = percentage over- or underperformance versus passive alternative; Alpha in \$ = Alpha in % times AUM.)

Second, and perhaps more importantly, the zero-sum theory doesn't hold because the asset classes, categories, or investment styles that are being measured are not closed systems. That is, the zero-sum alpha constraint applies to all assets and not just all the assets that are accounted for in each category. In most categories, there is massive "slippage" – resulting from assets and alpha not held within that category.

To illustrate, there's no question that all the alpha associated with buying, holding, and selling US small cap value stocks must equal zero, but not all of those assets are bought/held/sold in the Morningstar US Small Cap Value category. Likewise, not all the senior secured bank loans currently outstanding are held by mutual funds in the Morningstar Bank Loan category.

Put another way, active managers in a particular category or style are not constrained to trading and offsetting alpha among themselves or solely within their benchmark category. These active managers could be systematically taking alpha from other places (and therefore generating positive alpha on average in their category), or they could be systematically losing alpha to other investors outside their category (thus generating negative alpha on average in their category).

Who are these other investors? A partial list would include any asset owner not in the style category being measured. Returning to the example of US Small Cap Value, active managers could be buying and selling with other managers not in their category (e.g., European mutual funds that specialize in US small cap stocks), other investment vehicle types (like US Small Cap Value separate accounts), multi-asset or allocation strategies that allocate to US Small Cap Value stocks, mid-cap managers who "go down in cap" by buying small cap stocks, and so on.

Alpha can also slip across categories. For example, an active high yield bond manager could buy a securitized loan from a bank loan fund. If that security creates a positive contribution to performance, that trade creates positive alpha in the high yield category while the negative alpha resides in the bank loan category. Each trade will create a winner and a loser, but not necessarily in the same category.

Slippage can come from myriad places and asset owners, none of whose results show up in either the Morningstar Active/Passive Barometer or the SPIVA report. Sharpe himself noted this effect stating, "[A]ctive managers in question may not fully represent the 'non-passive' component of the market in question. For example, the set of active managers may exclude some active holders of securities within the market..."<sup>21</sup>

<sup>21</sup> "Sharpe, "Arithmetic," 8.

To reiterate, yes, alpha is a zero-sum game, but it may not be spread equally across managers, allowing more or fewer of them to outperform their indexes. Moreover, the categories where performance is measured are not closed systems. Alpha can slip between categories or can be gained or lost to investors outside those categories. Active managers could be systematically taking advantage of other investors, or they could be taken advantage of *by* other investors outside their category.

The key point is that, given how success/failure is measured by the Morningstar and SPIVA scorecards, **the zero-sum theory does not “prove” the average active manager cannot outperform.**

## #3 - Investors Can't Identify Outperforming Managers: The Selection Argument

### Persistence and Darts

The final attack on asset management goes something like this: Even if active managers could outperform (we've shown they can with no guarantee that they will), a typical investor has no way to identify which managers are likely to outperform in the future. Since there are no reliable predictors of future performance, due diligence and active manager selection are a fruitless endeavor. This misguided notion is based on several faulty assumptions.

First, the perceived inability to select a manager or strategy that will outperform is frequently linked to a lack of performance persistence among active managers. No arguments here – simply looking at a manager's excess return in one period and hoping it continues into the next is poor selection strategy. But more importantly, investors should understand that the search for persistent (or consistent) outperformance is fundamentally flawed.<sup>22</sup>

It's flawed because long-term investors should seek maximum terminal wealth over their investment horizon (subject to some risk constraint), not persistent excess returns in every period along the way. A simple example illustrates this point: A manager who outperforms in 25 of 40 quarters generating a 9% annualized return would not be preferable to one who outperforms in 15 of 40 quarters but generates an 11% total return. As Morningstar has noted, investors shouldn't "put consistent performance on a pedestal. . . Even the most durably successful funds have bouts of underperformance."<sup>23</sup> In other words, consistency is great, but it shouldn't get in the way of making money over the long term.

Requiring consistency is also counterintuitive because active managers will generally concede that they need to *underperform* periodically to outperform over a longer horizon. Markets are at least somewhat efficient and highly competitive, so even the "best" managers will be wrong quite often. Combine that with the mathematical fact that to beat a benchmark, an active manager's portfolio must be sufficiently different in composition from the benchmark, and this explains why excellent managers *will underperform* from time to time. Markets have natural cycles where winning positions switch to losing positions and vice versa. No one can time this transition perfectly, so periods of underperformance should be expected by active investors.

Second, as we've discussed, finding talented managers is likely to be easier in some categories than others. For example, the Morningstar Active/Passive Barometer notes that 67% of Corporate Bond funds outperformed the index over the 10 years ending December 31, 2018.<sup>24</sup> For this category, an advisor or investor throwing darts had almost a two-in-three chance of picking an outperforming manager for that period – without doing a wink of due diligence. While dart throwing isn't recommended, historically there are some categories where your chance of picking an outperforming manager is already pretty good.

<sup>22</sup> What do we mean by persistent performance? S&P Dow Jones Indices defines it as "the consistency of top performers over consecutive 12-month periods" and publishes a regular report tracking it over "three and five consecutive 12-month periods," along with "two non-overlapping three- and five-year periods." Berlinda Liu, Hamish Preston and Aye M. Soe, Does Past Performance Matter? The Persistence Scorecard (S&P Dow Jones Indices, July 2019).

<sup>23</sup> Jeffrey Ptak, "[Quit Chasing Unicorns: Consistent Fund Performance is Overrated](#)," *Morningstar Fund Spy*, December 18, 2018.

<sup>24</sup> Johnson and McCullough, *Barometer*, 3.

## Basic Selection Criteria

Are there predictive traits or indicators of success that individually or collectively can lead to improved fund or strategy selection? While there are many more than we could address, we highlight three investment traits. A series of influential studies have found that these traits improve the likelihood of finding an active manager who can generate long-term excess returns over the benchmark or passive alternative.<sup>25</sup>

**Cost.** As noted previously, fees and expenses are a direct offset to net performance. So, by definition – and holding all other factors constant – choosing a manager with lower fees should improve the likelihood of picking one who outperforms. Again, Morningstar’s Active/Passive Barometer is instructional. According to the December 2018 report, moving from the highest cost funds to the lowest cost funds improved the likelihood of selecting an outperforming fund in 17 of 20 categories over the preceding 10 years. Moreover, in those 17 categories, moving from highest-cost to lowest-cost funds raised the odds of finding an outperforming fund by 21 percentage points!<sup>26</sup>

This does not guarantee that picking the lowest cost active funds is a magic elixir for attaining excess return, but it does (both theoretically and empirically) significantly elevate your chances of selecting an outperforming manager or strategy. And yes, there are excellent managers charging premium prices whose security selection is well worth the additional cost, but they face a higher hurdle to adding value.

**Benchmark differentiation.** A number of academic studies have suggested that funds with significant “benchmark differentiation” are more likely to outperform. These funds have portfolios that look quite a bit different from their benchmark. For equity portfolios, this differentiation may be measured by tracking error, R2 or active share. Highly-differentiated bond portfolios would deviate from their benchmark in terms of duration, curve positioning, credit quality, sector overlap, etc.

Intuitively, a manager could find it harder to outperform when running a portfolio that has a significant overlap with its benchmark, in securities held or in risk-factor exposures. This is because excess return can only be derived from the portion of a portfolio that is not duplicated within the benchmark. As a result, portfolios with high benchmark overlap have less latitude to drive excess returns. While there is theoretically nothing that prevents low differentiation portfolios from outperforming, the practical limit is that in the long run, with only a small percentage of the portfolio capable of driving excess returns, a manager with lower differentiation would need spectacular security selection to overcome their fees. It’s possible, but less likely. Like lower fees, higher differentiation (or lower benchmark overlap), does not guarantee outperformance (and can lead to greater losses if security selection is poor).<sup>27</sup>

**Time horizon.** While theoretically more difficult to illustrate, the concept is straightforward: even though security prices change constantly and significantly, the underlying intrinsic value of an investment tends to be more stable. In essence, security price movement in the short run is highly random and mostly “noise” in statistical terms. Price changes over longer periods are more likely to reflect true trends in the security’s underlying value. In many cases, particularly with equity securities, real fundamental changes occur over several years, coinciding with changes in market competition, technological advantages, turnaround plans, the business cycle, or other factors. Again intuitively, investors who trade frequently with short holding periods are more likely to be betting on random price movements – and paying higher transaction costs to do so. In contrast, managers with less turnover and longer holding periods may be acting more on “signal” (less noise) and incurring lower transaction costs while doing so.

<sup>25</sup> For a discussion of other traits that are associated with investment success see K.J. Martijn Cremers, Jon A. Fulkerson and Timothy B. Riley, “[Challenging the Conventional Wisdom on Active Management: A Review of the Past 20 Years of Academic Literature on Actively Managed Mutual Funds](#),” *Financial Analysts Journal* 75, no. 4 (2019): 8-35.<sup>23</sup> Jeffrey Ptak, “Quit Chasing Unicorns: Consistent Fund Performance is Overrated,” Morningstar Fund Spy, December 18, 2018.

<sup>26</sup> The exceptions were U.S. Small Growth, Foreign Small-Mid Blend and Corporate Bond. Johnson and McCullough, *Barometer*, 3.

<sup>27</sup> An early and well-known study in this area is K.J. Martijn Cremers and Antti Petajisto, “[How Active is Your Fund Manager? A New Measure that Predicts Performance](#),” *Review of Financial Studies* 22, no. 9 (September 2009): 3329-3365.



Academic research suggests that, when combined with high benchmark differentiation, low turnover is associated with outperformance.<sup>28</sup> Again, this combination in a portfolio does not ensure investment success. Managers with high turnover and short holding periods can generate excess returns and outperform while longer-term investors can certainly underperform. However, on average, selecting managers with differentiated portfolios and longer time horizons (or eliminating managers with index-tracking portfolios and high turnover) can improve the odds of picking an outperforming active manager.<sup>29</sup>

Of course, no factor – taken individually – or set of factors – taken collectively -- will guarantee that a strategy will outperform. Nor will any factor or set of factors ensure that the average or median manager in a category will beat the benchmark. However, research suggests that there are many factors –either the ones mentioned here or ones that we haven’t discussed -- are all both *theoretically and empirically* linked with better manager selection. Selecting a manager who has a reasonably good probability (greater than 50%) of outperforming the benchmark is not the needle-in-a-haystack challenge many would have you believe. Having deemphasized or eliminated the most cost-prohibitive strategies and the “closet indexers” with low benchmark differentiation and high turnover, the remaining subset is likely to be very fertile ground for finding managers who can generate excess returns.

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<sup>28</sup> Martijn Cremers and Ankur Pareek, “Patient Capital Outperformance: The Investment Skill of High Active Share Managers Who Trade Infrequently”, *Journal of Financial Economics*, 122, no. 2 (November 2016): 288-306.

<sup>29</sup> Outside the context of highly-differentiated portfolios, the evidence on the impact of turnover on performance is mixed. For example, one 2017 study finds a “positive relation between an active fund’s turnover and its subsequent benchmark-adjusted return.” (Luboš Pástor, Robert F. Stambaugh and Lucian A. Taylor, “[Do Funds Make More When They Trade More?](#)” *Journal of Finance* 72, no. 4 (August 2017): 1483-1528.) On the other hand, another study published the same year finds that “the worst short-term returns accrue to funds that do the most trading.” (Bidisha Chakrabarty, Pamela C. Moulton and Charles Trzcinka, “[The Performance of Short-Term Institutional Trades](#),” *Journal of Financial and Quantitative Analysis* 52, no. 4 (August 2017): 1403-1428.)

## A Brighter Future for Active Managers | Active Management Adapts<sup>30</sup>

No doubt, the growth in indexing has been a call to action for active managers. The competitive pressures emanating from cheap passive strategies are already forcing them to up their game. We see four trends that should bode well for active managers who are best able to adapt in the coming years.

First, and most obviously, indexing is forcing active managers to reassess the competitiveness of their fees. Going forward, active managers will have to better align their fees with their ability to generate excess return. These downward adjustments will, by definition, improve net performance. Regulatory changes also play a role. Directives like Retail Distribution Review (RDR) in the UK and the new “best interest” rules in the US (Regulation BI) are leading fund buyers to purchase lower-cost share classes with many of the extraneous costs eliminated. In the US, mutual funds have eliminated or de-emphasized more expensive share classes, which had total expense ratios high enough to make long-term outperformance difficult.

The industry’s movement toward lower cost appears well underway. . A recent study by FUSE Research Network notes that average fees for active equity funds have fallen from 0.92% in 2006 to 0.73% in 2017 – a 20% drop.<sup>30</sup> As active managers continue to cut fees and investors demand more stripped down share classes, fewer structural laggards will be left in the active universe.<sup>31</sup>

Second, on top of improved performance, keeping a closer eye on costs could bring additional benefits. Lower fee revenue could result in an era of increased discipline and efficiency for active managers. Over the years, declining profit margins have been pushing active managers to streamline and focus squarely on activities that produce alpha. Active managers will increasingly turn to technology pioneered by their passive peers to reduce labor costs and trade more efficiently.

Third, a greater focus on generating excess return could drive managers to create more differentiated portfolios. As early as the 1980s, institutions began to recognize that portfolios could be made more efficient by separating cheap beta from more expensive alpha. Today, even retail investors understand the perils of benchmark hugging and overpaying for beta and are gradually forcing closet indexers to adjust. If investors barbell between low fee beta and higher fee alpha, the active funds that remain will be more concentrated and have less benchmark overlap. While benchmark differentiation alone may not be sufficient to generate excess return, it certainly creates a favorable environment for alpha generation. At the same time, funds that have low differentiation versus their benchmark will need to make sure that their fees are low enough to leave room for value-added. Again, this trend will also improve the relative performance of active managers compared to their benchmarks.

Finally, active strategies stand to gain from one of indexing’s inherent weaknesses: the inability to manage risk. As we noted previously, the major market-cap and issuance-weighted indexes are fully invested at all times and provide pure beta, delivering all of what the market provides, good and bad. Since 2009 this has been a boon for passive strategies as global stocks have risen and interest rates fell. But at some point, the bear will return, and when it does, investors will rediscover the other side of holding assets on autopilot. While there is no guarantee that active strategies on average will outperform the indexes in the next big selloff, these managers at least have the chance to de-risk during periods of trouble. In the next bear market, many investors who have been spoiled by full upside participation could come to realize the pain of full downside exposure. This may be the time when investors develop new respect for active strategies that can offer some downside protection that the indexes, by their very nature, can’t provide.

<sup>30</sup> [Specific author,] FUSE Research Network, Fee Wars (FUSE Research Network, [original date,] updated December 2017).

<sup>31</sup> Lower mutual fund fees don’t necessarily mean that investors’ total costs are declining. Financial advisers are now more likely to charge investors directly for their service rather than by receiving fees through mutual funds.

None of these factors, individually or in aggregate, ensures that the average active manager will beat the index or outperform net of fees. However, the pressures exerted by passive indexing are forcing active managers to tackle longstanding sources of underperformance. By setting more appropriate fees relative to risk, active strategies should rise in the competitive rankings. Moreover, the wake-up call of the next bear market will force investors to be more discerning about the quality of the assets they own, pushing many of them towards strategies that can better manage risk.

## Summary

The extraordinary growth of passive investment strategies is well-deserved. But in recent years, the narrative between passive and active has become unbalanced. In this paper, we challenge the conventional wisdom supporting three of the most common arguments used to discredit actively managed portfolios.

First, the industry and media narrative would have you believe that active managers are underperforming across all styles and during all periods. However, a review of the data shows that the relative performance of active managers against their index competitors varies across both styles and time periods. In our view, the well-documented dynamics in the US large cap categories have been inappropriately extrapolated to the wider population of active managers. We also highlight a short subset of factors that at least partially explain why the fortunes of active managers rise and fall during various periods and cycles. In other words, if markets are just too efficient or if managers lack skill, actively-managed portfolios shouldn't outperform ever, at all. Instead, active managers (on average) experience periods of both strong and weak performance.

Second, while Sharpe's "Arithmetic of Active Management" may be compelling in terms of the overall availability of alpha to active managers, the math doesn't perfectly align with how active management is measured in industry practice. Excess returns can be skewed across managers and there is meaningful "slippage" across categories and investor types. The fact that alpha in total must equal zero does not mean that the median professional manager in a category will have 0.0% excess return before fees (and negative excess return after fees).

Third, while no one is suggesting that active manager selection is easy, we do find that there are some factors that can substantially increase an investor's ability to identify a manager who will outperform. We further note that focusing on performance persistence is a fool's errand as the ability to generate excess returns in the long run isn't inconsistent with periods of underperformance in the short run.

Finally, we highlight that the competitive pressures from passive indexing are forcing active managers to raise their game. Their fees are falling, closing the gap with passive. Active managers are running more concentrated and differentiated portfolios or lowering their fees even further to reflect their lower active risk profile. Firms are getting leaner and focusing resources on activities that drive alpha.

Active and passive strategies can happily coexist and both offer distinct benefits. Only when investors abandon the false dichotomy that one is good, the other bad, will they be able to build more optimal portfolios.

## About the Author

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Mr. Lafferty is a frequent speaker on TV and at industry events and is often quoted in Barron's, Bloomberg, The Wall Street Journal and other financial publications. He received his BA from the University of New Hampshire in Economics and Political Science (dual major) and his MSF -Master of Science in Finance from Suffolk University. He is a CFA charterholder and a member of the CFA Society Boston, the CFA Institute, and the National Association for Business Economics (NABE). He has over 25 years of investment and financial industry experience.

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## About the Active Managers Council

The IAA formed the Active Managers Council in 2017 to support education and research on the value of active management for investors and the capital markets and to engage on relevant public policy issues. For more information, visit [www.activemanagers.com](http://www.activemanagers.com) or follow us on [Twitter](#), [LinkedIn](#) and [YouTube](#).

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