



# The case for active asset management

September 2017

**Much has been written to assert the superiority of passive over active investing. Net of fees, it appears that on average passive management has produced higher returns. The recent shift of money out of active and into index funds (see Figure 1 for equity funds) reflects the response by investors to this argument (amongst others) and is taken as proof that investors are giving up on active fund management. A resounding consensus has emerged that this trend will continue.**

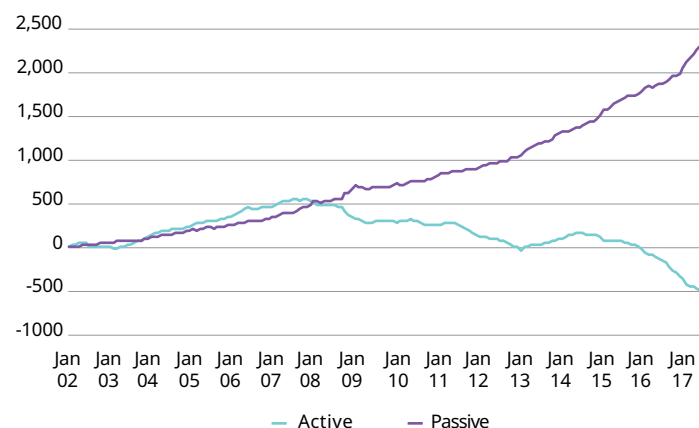
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The growth in the numbers of professional investors – there are now 135,000 CFA charterholders, up from 80,000 in 2007, and 320,000 Bloomberg terminals – may mean the sheer numbers of skilled people attempting to beat the market have arbitrated away any potential gains from active management.

But seemingly unstoppable investment trends have a habit of reversing unexpectedly.

**Figure 1: Shift to passive and ETFs strongest in the US**  
US Domiciled Equity fund flows – USD (billion)



Source: Broadridge. Includes US domiciled equity mutual funds and ETFs.

Our research shows:

- some of the data used to question the benefits of active management overstates the case
- it is wrong to extrapolate from the US stockmarket the conclusion that the index in all markets is hard to beat
- replicating the performance of bond markets through indexing has proved almost impossible
- active management naturally has periods of underperformance and outperformance and must be judged over longer time periods.

The report also highlights how some of the benefits of active management have been overlooked. Active managers:

- hold companies to account
- help to direct capital into faster growing industries
- work with companies to improve standards of governance and make businesses more sustainable.

## The objectives of investment

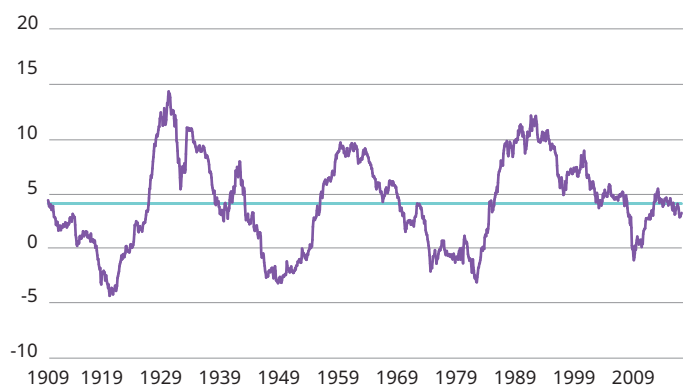
An assumption in the active/passive debate is that achieving a return as close as possible to a benchmark index is an end in itself. For most investors – especially the individual saver or pensioner – this is unlikely to be true. These investors are looking for an outcome which gives them the best chance of meeting a savings goal or enhancing their income before or in retirement. This may coincide with the return on a capitalisation weighted index, but not necessarily.

For the investors described above, achieving their investment goals depends primarily on success in allocating to the right asset classes. This cannot be done passively. There is no market index that can be aligned with a particular real world outcome (such as inflation plus 4%).

To illustrate this, the conventional approach to passive multi-asset investing is a mix of indexed equities and bonds that rebalances from time to time to a fixed percentage such as 60/40. This approach has over time generated a positive inflation-adjusted return. However, Figure 2 on the next page shows that even over 10-year periods the outcome from this strategy has varied enormously, making it unsuitable for an investor looking for a steady return.

**Figure 2: A 60/40 equity/bond global portfolio has given investors a bumpy ride**

Rolling 10-year real returns of a 60/40 portfolio (%)



Source: GFD, Thomson Reuters Datastream. Portfolio shown is 60% GFD World Equity Index, 40% US bonds rebalanced monthly. Returns in US dollars. Blue line represents a 4% real return.

We have written before<sup>1</sup> about the inadequacies of a purely passive approach to asset allocation, and demonstrated that applying a simple buy low/sell high rule, a standard tool of active management, can make outcomes much more consistent. Dynamic asset allocation is an active skill and cannot be replicated cheaply.

### The theory behind passive

The classic academic view of active management was proposed by Bill Sharpe, who argued in 1991<sup>2</sup> that ‘after costs, the return on the average actively managed dollar will be less than the return on the average passively managed dollar’. This conclusion depended on the assumption that the index that passive managers were tracking represented the entire range of available investment opportunities, and on all participants being motivated by the same economic objectives.

Although Sharpe’s conclusion is usually quoted as the foundation of a critique of active management, and data from US large cap equities seems to support him, the academic world has since moved on decisively. Many research papers have demonstrated that markets are less efficient than once thought, and that behavioural biases among investors create opportunities for arbitrage – the most recent example of this approach being ‘Adaptive Markets: Financial Evolution at the Speed of Thought’ by Andrew Lo<sup>3</sup>, who argues that humans are biologically incapable of the rational thinking that is required to underpin efficient markets. The possibility of active managers in aggregate beating the market is again on the agenda.

A source of market inefficiency which creates opportunities for active managers is that not all investors have the singular objective of beating the market. Hedge funds, for example, aim to generate strong absolute returns. Central banks have become huge, and in some cases dominant, investors in bond markets while governments own permanent stakes in state owned enterprises in emerging markets. For these investors (all of them both rational and professional) beating the index is not the primary goal.

1 Asset allocation: *We can’t afford to be passive*, October 2016.  
 2 “The Arithmetic of Active Management”, *Financial Analysts’ Journal*, Jan/Feb 1991.  
 3 Princeton University Press, 2017.

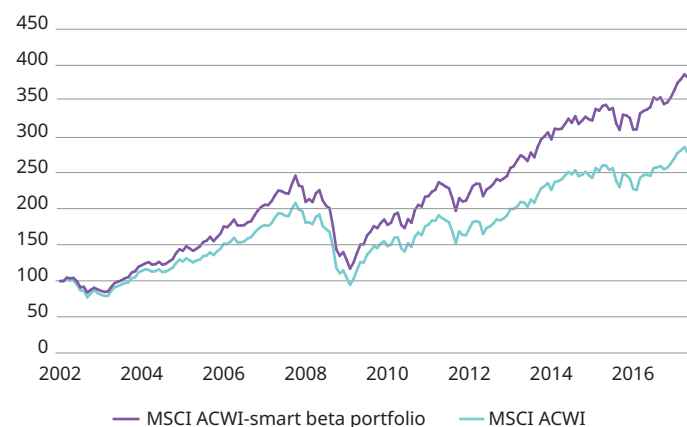
Another phenomenon that creates opportunities for active managers is the behaviour of investors who use ETFs as trading vehicles. Such investors see ETFs as tools for trading in and out of markets because they replicate a market exposure. We know, however,<sup>4</sup> that a great deal of value is lost in the classic trap of buying high and selling low. This activity benefits active managers who can take advantage of the exaggeration of trends in prices at turning points.

### Active v passive v smart beta?

The active/passive debate is often posed as a dichotomy, but most institutional investors already use a mix of active and passive and seek to use active management where it is more likely to be rewarded; they are not arrayed on either side of a philosophical divide. A further dimension is factor investing (or smart beta).<sup>5</sup> Broadly, rules-based strategies, using one of a series of factors with a rebalancing mechanism, have outperformed market capitalisation weighted indices over most past periods. Indeed it was the outperformance of the value and size factors that first led to the reconsideration of the view that a pure passive approach is optimal. This conclusion can be taken to extremes: a Cass Business School report<sup>6</sup> showed that almost all randomly generated portfolios beat the traditional indices. (This may be because the capitalisation weighted index has a lower exposure to value and small size than almost any other possible portfolio.)

Nonetheless, factor investing – which is a form of active management - raises questions for both passive and active managers since smart beta, even naively implemented, has outperformed the indices most passive funds use (see Figure 3 below), and has delivered excess returns more cheaply than traditional active management.

**Figure 3: An equally-weighted portfolio of five factors has beaten the index**



Source: MSCI, Schroders. Data to 30 April 2017. The data measures an equally-weighted portfolio of the following five MSCI factor indices: Value, Quality, Min Vol, Momentum, Small Size, rebalanced monthly. Past performance is not a guide to future performance and may not be repeated.

4 Dalbar studies; the 2017 QAIB showed that the average investor in US mutual funds earned 7.3% in 2016 against an index return of 12.0%.  
 5 Schroders has written elsewhere about factor investing: see in particular “Understanding Factors”, *Investment Horizons*, issue 6, 2016.  
 6 *An Evaluation of Alternative Equity Indices – Part 1: Heuristic and Optimised Weighting Schemes*, Andrew Clare, Nick Motson and Steve Thomas, March 2013, SSRN.

The smart beta industry is growing rapidly – the *Financial Times* reported that \$24 billion of net new money was invested in this area in the first quarter of 2017<sup>7</sup> and recent growth rates have been of the order of 30% per annum. The potential for crowding raises the question whether, in future, it will be as easy to harvest excess returns from factor investing as back tests show. Even up to now, smart beta indices have seen periods of considerable underperformance – the MSCI AC World Value Index has underperformed the AC World by 9% since the end of 2009, and the Min Vol Index has underperformed by 14% since June 2016. Investors considering incorporating smart beta or factor indices into their investment strategy should be prepared for the possibility that an individual factor could underperform the comparable market cap index by 15-20% over a specific period.

Investors should consider adding factors to portfolios alongside passive and active approaches, although to get the best out of factors in future will require active skill in allocating among them. At the same time, factor investing challenges active managers to demonstrate that their excess returns derive from genuine, or idiosyncratic, skill: an active manager with a value strategy now faces stiff competition from a value ETF and needs to justify that he or she is delivering more than simple factor implementation.

The price of investment management is an important factor in this decision. Passive will always have the advantage over active (as in most cases will smart beta), especially for the smaller investor, but it is important to bear in mind that passive is not free and the comparison of outcomes from active funds with indices, as opposed to passive funds, does not compare like with like. We explore this further later in this paper.

### The social purpose of active management

Before we look at the evidence for the performance of active investors, it is important to recognise that they play a broader economic role.

Active managers set the prices of securities – imagine a world in which there were no active managers and capital markets set prices based purely on the relative capitalisation of companies. There would be no mechanism to enhance efficiency or maximise returns for the benefit of the economy as a whole. Companies would be entirely dependent on the inclusion of their securities in indices. In the real world, active investors are not only trading in listed stocks and thereby influencing prices, but should be acting as responsible owners of their investments. We believe that the stewardship activities of active investors (see overleaf) raise returns on the stock market, in aggregate, by encouraging higher standards of corporate governance and directing capital into faster growing industries. None of this is visible in the relative returns of active managers, but this activity contributes to economic growth in a way that is not measurable by value added against an index.

The counter argument, made most persuasively by John Kay,<sup>8</sup> is that because fewer companies today raise money from public equity markets (Apple has only ever raised \$100 million), and are generally less hungry for capital, the value of this process is much diminished from its original nineteenth century purpose.

In fact the fall in equity fund raising has mainly been driven by the cyclically low level of interest rates, making it cheaper for companies to issue debt and reduce their cost of capital, often by buying back shares. Although the number of initial public offerings (IPOs) in the US has fallen since the 1990s, the amount of money raised each year by existing listed companies has not dropped. Moreover, the fall in capital intensity may be characteristic of some industries, notably technology (Facebook, Uber etc), but many others are likely to need significant levels of capital – for example those investing to produce a sustainable response to climate change. The awarding of higher valuations to successful companies with long-term mindsets (and vice versa) is also creating positive incentives.

The existence of this social good highlights the free rider problem which is a source of much of the tension between active and passive: why should an investor pay for the costs of active management when she can reap the benefits of the price discovery and stewardship for a much lower cost through a passive fund? This is what was termed by nineteenth century economists as the tragedy of the commons – what works for the individual (grazing an additional cow on common land) does not work for society as a whole (the land becomes overgrazed).

### Environmental, social and governance (ESG) and stewardship strategies

As discussed above, a critical role an active manager plays is to exercise informed stewardship over companies, with consequent benefits for economic growth. This is a role governments in both Europe and Asia are encouraging: in Japan, in particular, policymakers are keen to see stewardship lead to better capital allocation, and everywhere managers are expected to exercise their voting rights responsibly. Passive managers have a similar duty to act as stewards of their investments, and indeed they have a stronger incentive to do so since they have no other levers to pull. However, in practice, they have been found wanting: the largest Japanese asset owner, the Government Pension Investment Fund, reported from a survey of Japanese companies that “many companies responded that meetings with active managers were more useful than those with passive managers... pro forma and standardised questions [from passive managers] increased”.<sup>9</sup> Active managers are likely to be more effective in engaging with companies because of their deeper understanding of the underlying businesses, although the largest passive managers are now making strenuous efforts in this area.

Many investors now operate explicit ESG strategies, either active or passive. The implementation of a passive ESG strategy is dependent on the quality of ESG ratings. There is no evidence that ratings have predictive power. They are backwards-looking; data providers cut their ratings after a controversial event. For example, Volkswagen was downgraded from BBB to CCC<sup>10</sup> after the emissions scandal; BP from AA to BB after Deepwater Horizon and Olympus from AAA to CCC after its concealment of losses and corrupt payments came to light. Active managers should be able to do more than just rely on historical data.

9 [www.gpif.go.jp/en/topics/pdf/20170203\\_report\\_of\\_stewardship\\_activities\\_2017.pdf](http://www.gpif.go.jp/en/topics/pdf/20170203_report_of_stewardship_activities_2017.pdf)

10 These are examples of MSCI ESG ratings.

7 “2,000% rise in new money allocated to smart-beta funds”, *Financial Times*, 14 May 2017.

8 *Other People's Money*, 2015, pp 143–172.

This area of ESG and stewardship is one where active managers have the potential to add value in both narrow financial and broader economic terms. Ultimately, however, investors will judge active management by the outcomes it produces.

### Outcomes – the US and other markets

Before reviewing the outcomes of active and passive management, it is worth stating that the choice of benchmark is an active decision. In some asset classes, like the S&P500 for large cap US equities, there is broad agreement on a single benchmark. Elsewhere, however, what appears to be an uncontroversial part of building a portfolio can have a big effect on the outcome. For example, two widely used indices for small cap investing in the US are the S&P SmallCap 600 and the Russell 2000, but the difference in returns between them has been 2.8% per annum over the last 10 years. This gap means that the choice of benchmark is an important active decision for the supposedly passive investor. In fact, according to Bloomberg News<sup>11</sup>, there are now more benchmark indices in the US than there are listed securities.

It is also worth stressing that any comparison of the returns from active investment with index returns is flawed. Investors cannot access indices cost free, and the legitimate comparison is with the returns passive funds have achieved, which is almost invariably below the index return.

Much of the data used to compare active and passive outcomes is sourced from SPIVA, part of S&P Dow Jones Indices. A recent SPIVA report<sup>12</sup> stated that over 88% of large cap equity funds in the US underperformed the S&P500 Index in the latest five-year period. In the case of large cap US equities, this conclusion is reinforced from other sources, but there are weaknesses in the SPIVA methodology which call into question the assumption of poor outcomes for active investors elsewhere.

There is also a tendency to extrapolate from the US market the conclusion that other equity markets are hard to beat. Figure 4 shows why the US is different – institutional

11 May 12, 2017 and *The hidden risks of going passive*, June 2014.  
 12 SPIVA US Scorecard Year-end 2016, April 2017. All large cap equity funds measured against S&P500 Index.

ownership, particularly by home-grown institutions who are more familiar with domestic securities, is significantly higher than in other countries.

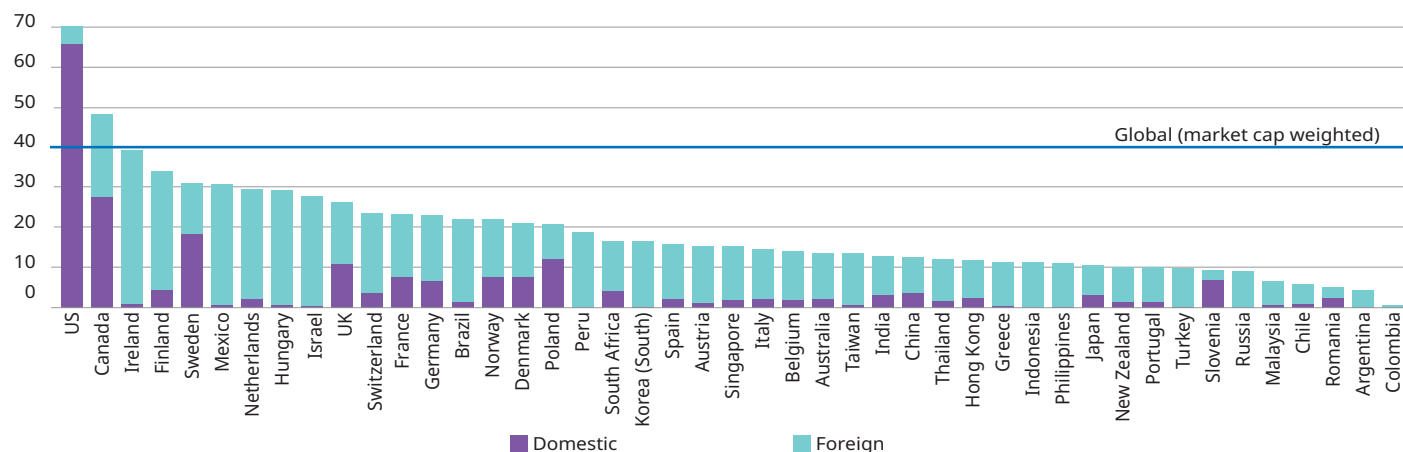
The SPIVA data is widely used as a scorecard of active and passive performance, largely because it deals with the issue of survivorship bias. It does so, however, by assuming that any fund which has closed or been merged into another fund has underperformed its benchmark. While this assumption may be true in most cases, it is not universally correct. We tested UK equity funds that had closed in the past 10 years and found that 20% had outperformed before closure. In addition, SPIVA assigns a benchmark to each fund from the S&P Index series irrespective of what the fund's benchmark actually is. By contrast, we use stated benchmarks in calculating excess returns. Finally SPIVA does not measure the performance of funds launched since the start of the measurement period. Adjusting for these means that the percentage of funds that underperformed is almost invariably less than the figure published by SPIVA.

Figure 5 shows five-year performance for a range of asset classes, using both the actual SPIVA data and alternative measures of active performance. If we take UK equities as an example, there were 312 active funds in our sample at the start of the five-year period (in March 2012). 237 or 76% of these funds were still in existence five years later. Of the 75 of these funds that were liquidated, 43 or 57% underperformed prior to closure. In addition 25 new funds were launched during this period out of which five, or 20%, underperformed.

The bottom half of the table compares our findings to the SPIVA numbers. As an example, SPIVA reports that 50% of UK equity funds underperformed over the five-year period. By using the same methodology as SPIVA, but calculating excess returns using the stated benchmarks, we found that 47% of the funds underperformed. Since we know that 57% of the funds underperformed prior to closure, and not 100% as assumed by SPIVA, we can adjust the underperformance number to 37%. Finally, incorporating the performance of new funds, we found the underperformance percentage to be 35%.

### Figure 4: Institutional ownership is much higher in the US than elsewhere

2000–2010 average (%)



Source: "Does Institutional Ownership Matter for International Stock Return Comovement?" European Corporate Governance Institute – Finance Working Paper No. 465/2016, March 2016.

**Figure 5: Funds by major sector**

Fund population	UK equities	EM equities	Eurozone equities	Japan equities	Global aggregate	US HY	EMD US dollars
Funds at 31 March 2012	312	147	137	157	39	161	87
Of which survivors	237 (76%)	118 (80%)	105 (77%)	98 (62%)	32 (82%)	129 (80%)	70 (80%)
Underperformed	71 (30%)	46 (39%)	77 (73%)	62 (63%)	20 (63%)	108 (84%)	59 (84%)
Of which were liquidated	75 (24%)	29 (20%)	32 (23%)	59 (38%)	7 (18%)	32 (20%)	17 (20%)
Underperformed	43 (57%)	25 (86%)	18 (56%)	37 (63%)	3 (43%)	30 (94%)	15 (88%)
New funds	25	107	21	39	6	40	31
Underperformed	5 (20%)	73 (68%)	11 (52%)	22 (56%)	3 (50%)	33 (83%)	20 (65%)
<b>% of funds underperforming indices</b>							
Published SPIVA numbers	50%	75%	88%	69%	37%	86%	86%
SPIVA methodology adjusted for stated fund benchmarks	47%	51%	80%	77%	69%	87%	87%
Adjusted for actual performance of closed funds	37%	48%	69%	63%	59%	86%	85%
Further adjusted for new funds	35%	57%	67%	62%	58%	85%	80%

Past performance is not a guide to future performance and may not be repeated. Data covers five years to 31 March, 2017. SPIVA methodology is used but funds are measured against their published benchmark whereas SPIVA mainly use S&P indices. Source for fund population: Morningstar. Returns are excess returns net of fees adjusted for survivorship bias. In case of multiple share classes, either Investment Association primary retail share class (UK equities) or oldest retail share class (other sectors) is used.

This analysis shows that the SPIVA headline numbers overstate the number of active funds that underperform net of fees. In six sectors out of seven the adjustments we have made, which we believe enhance the quality of the analysis, lead to the conclusion that fewer active funds

underperform. The experience of active funds against the index is not compelling in the majority of sectors considered, but it is more meaningful to compare active funds with passive funds (i.e. ETFs) rather than indices, which we do in Figure 6.

**Figure 6: ETF cumulative returns vs. benchmark 5 years to 31 March 2017**

	UK equities	EM equities	Eurozone equities	Japan equities	Global aggregate	US HY	EMD US dollars
ETF	51.2%	1.1%	37.3%	36.4%	17.8%	27.4%	27.2%
Benchmark	53.0%	4.1%	38.0%	39.1%	18.7%	35.1%	32.0%
Difference	-1.8%	-3.0%	-0.7%	-2.7%	-0.9%	-7.8%	-4.9%
Proportion of active funds underperforming the ETF	29%	51%	63%	54%	44%	32%	60%

Source: UK equities, iShares Core FTSE 100 UCITS ETF; Emerging Markets equities, iShares MSCI Emerging Markets ETF; Eurozone equities, iShares MSCI Eurozone ETF; Japanese equities, iShares MSCI Japan ETF; Global Aggregate, Vanguard Global Bond Index fund – Institutional hedged (USD); US high yield, SPDR® Bloomberg Barclays High Yield Bond ETF; EMD, iShares J.P. Morgan USD Emerging Markets Bond ETF. Returns are shown in US dollars except for UK equities which are in sterling. Includes actual performance of funds closed and opened during the period.

The table shows that, relative to the passive alternative, as opposed to the index, a significantly smaller proportion of active managers underperformed. Just as in comparing our findings with SPIVA numbers, we made the necessary adjustments when calculating the performance figures. As a result, the bottom rows of Figure 5 and Figure 6 are directly comparable. For example, 35% UK equity funds underperformed the benchmark, whereas 29% underperformed the FTSE 100 ETF. The scale of underperformance of some of the ETFs highlights the fact that ETFs do not deliver the index return, especially in fixed income.

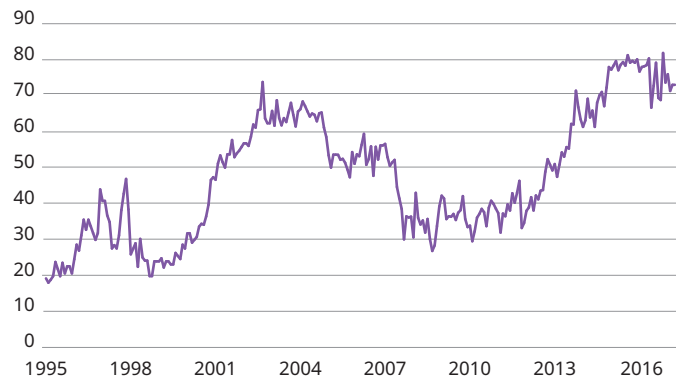
### Active performance over time

We have then focussed on two equity sectors, UK and emerging markets, to show how active performance has varied over time. Returns are monthly excess returns, net of fees. Unlike previous studies, we include only funds that are benchmarked to a broad index. By doing so, we exclude the funds that are either not benchmarked, or funds that employ a specific strategy, such as ESG or special situations.

Figures 7 and 8 display the percentage of active funds that have outperformed their benchmarks on a rolling five-year basis. We acknowledge that these numbers include survivorship bias since only funds that have a full five years of performance history at a given date are included in the calculation.

### Figure 7: Active performance has improved recently in the UK

UK percentage of funds outperforming (rolling five years) (%)

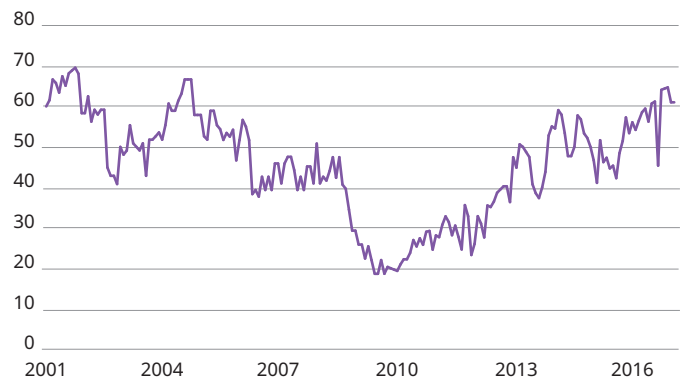


Active UK equity funds domiciled in the UK denominated in sterling; Investment Association primary retail share class; data to March 2017. Source: Morningstar, Schroders. Past performance is not a guide to future performance and may not be repeated.

Data from the UK shows that the performance of active managers is clearly cyclical (see box, "The cyclical nature of active management", for analysis of this feature), but that there have been several periods, including the present, when well over 60% of active funds have outperformed net of fees.

### Figure 8: Improving cycle in the performance of active emerging markets funds

Percentage of emerging markets funds outperforming (rolling 5 years) (%)



Active EM equity funds domiciled in the US denominated in US dollars; retail share class with longest history, data to March 2017. Source: Morningstar, Schroders.

Figure 8 shows a similar pattern for active emerging markets equities, with active performance improving steadily since 2008. In stark contrast, the SPIVA data for emerging markets showed<sup>13</sup> that 75% of emerging markets funds underperformed the benchmark over the five years to end 2016. The explanation for this discrepancy is the wide divergence between the index SPIVA uses for measurement (S&P/IFCI) and the more commonly used index (MSCI–Emerging Markets) – the S&P index has given 2% per annum higher returns. Most active and passive emerging markets funds are benchmarked to the MSCI index, and it is likely that active managers could have generated the same excess return against a different benchmark.

In Figures 9 and 10, we measured active performance against indices. As discussed above, this penalises active performance which we have shown net of fees. We have therefore used these two markets to show the cumulative impact of passive fees (Figure 9). Assuming a 0.30% average annual passive fee<sup>14</sup> for UK equities over a 26-year period, the passive fund would have trailed the benchmark by 8% (the green line). Active performance, as measured by average monthly excess return across all funds (the blue line)<sup>15</sup>, has varied significantly but has matched the index as of March 2017. Many active funds may have underperformed the index, but 100% of passive funds have underperformed.

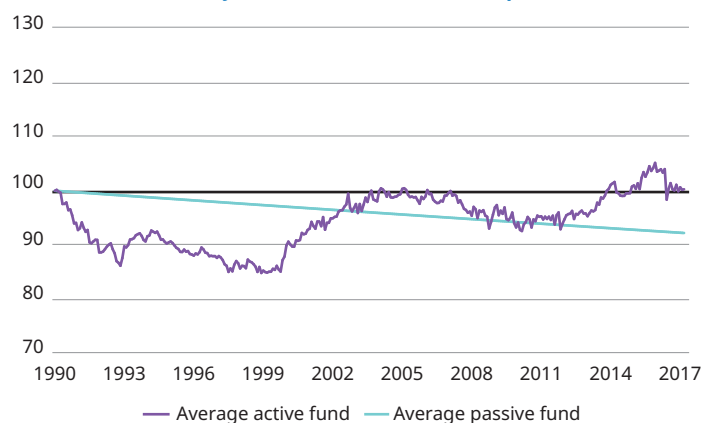
<sup>13</sup> *Financial Times*, 20 January, 2017.

<sup>14</sup> The Vanguard ETF tracking the FTSE 100 had an expense ratio of 0.40% up to 2015, according to Morningstar data.

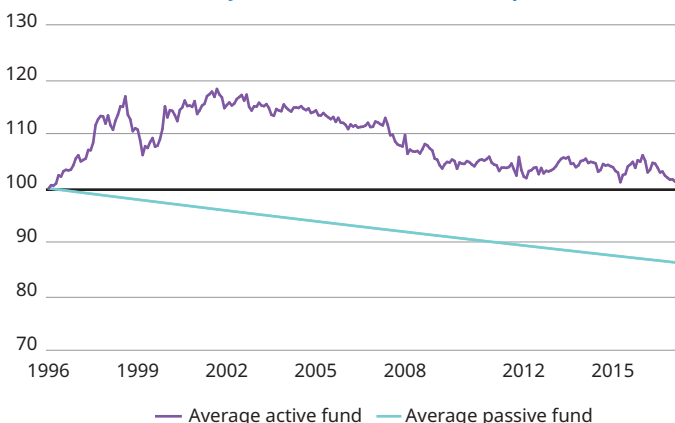
<sup>15</sup> This approach eliminates survivorship bias by taking account of all available fund data each month. It represents a fair reflection of the performance of the average manager over time, but with the consequence that it would not have been investable.

**Figure 9: UK and emerging market active funds have matched the index and beaten passive funds**

**UK cumulative monthly excess returns vs simulated passive funds**



**EM cumulative monthly excess returns vs simulated passive funds**



The black line at 100 is the performance of the index, while the blue line is the simulated performance of a passive fund charging 0.30% per annum for UK equities and 0.70% for emerging markets equities; the cumulative active performance index (purple line) is calculated using average monthly excess returns of all funds in existence in every given month. Source: Morningstar, Schroders. Past performance is not a guide to future performance and may not be repeated.

The point about measuring the real cost of passive management is most visible in emerging markets, where the costs of acquiring market exposure have been higher (until recently typically 0.75%) than in developed markets. Of course, the cost of passive has fallen significantly in the last few years, raising the standard against which active managers will be measured in future, but in many markets passive costs are still material.

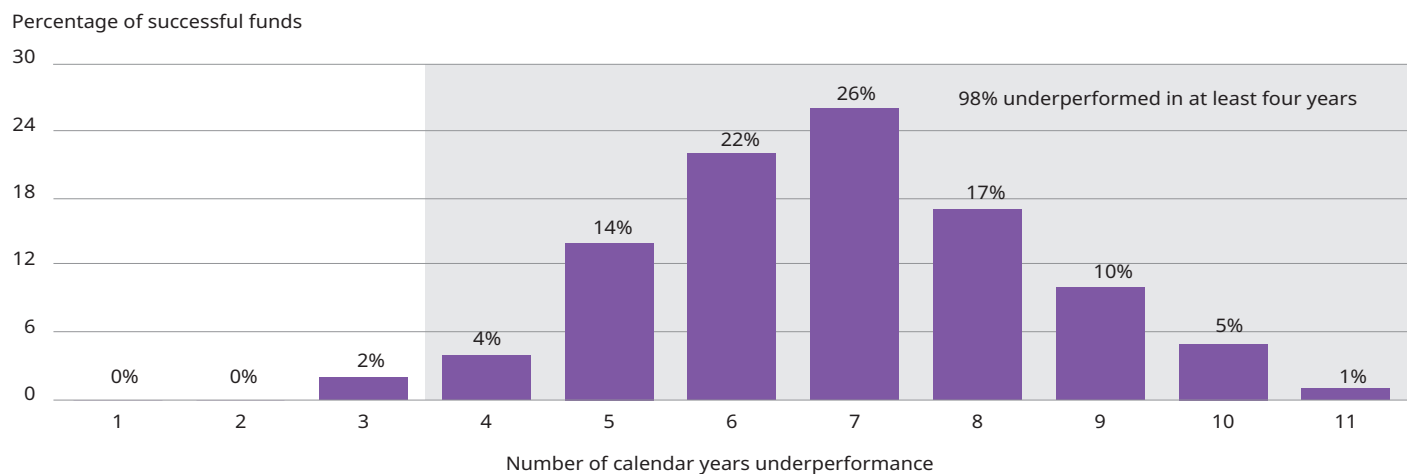
Some commentators have drawn attention to the underperformance of active managers over short periods (for example, the *Financial Times* reported last year that a large percentage of funds had underperformed during the first quarter<sup>16</sup>). This may frequently be true but the criticism is misplaced. There is good evidence that managers who

perform well in the longer-term experience significant periods of underperformance in the short term. The Vanguard Group published a study in 2015<sup>17</sup> which showed that of the 552 active US equity funds which had beaten the index over the previous 15 years, 98% had underperformed in four or more individual years (Figure 10). This is an important consideration for investors who use active managers; they are more likely to achieve good outcomes if they do not abandon a strategy after a short period of underperformance, and also if they take money off the table after periods of unusually strong returns. The section overleaf examines the cyclical nature of active management in greater depth.

16 "Wrongfooted US mutuals run into trouble", *Financial Times*, 4 April 2016.  
17 <https://personal.vanguard.com/pdf/ISGKEY.pdf>, October 2015.

**Figure 10: Even successful funds had multiple periods of underperformance**

**Distribution of the 552 successful funds by total calendar years of underperformance, 2000–2014.**



Data as at December 31, 2014. Successful funds are those that survived for the 15 years and also outperformed their prospectus benchmark. Our analysis was based on expenses and fund returns for active equity funds available to US investors at the start of the period. The oldest and lowest-cost single share class was used to represent a fund when multiple share classes existed. Each fund's performance was compared with its benchmark. Funds that were merged or liquidated were considered underperformers for the purpose of this analysis. The following fund categories were included: small-cap value, small-cap growth, small-cap blend, mid-cap value, mid-cap growth, mid-cap blend, large-cap value, large-cap growth and large-cap blend. Numbers do not add up to 100% because of rounding.

Sources: Vanguard calculations using data from Morningstar, Inc

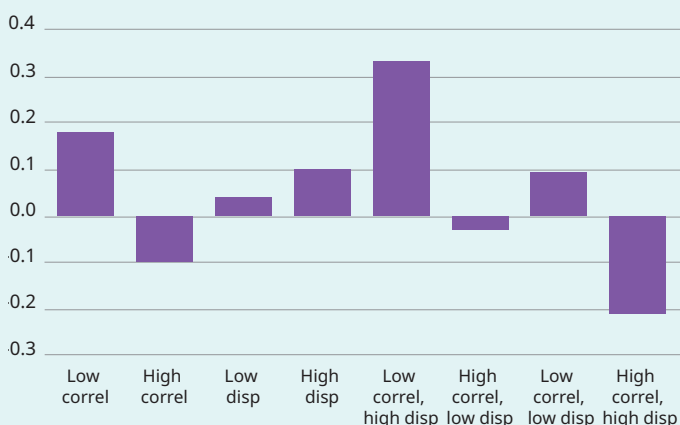
## The cyclical nature of active management

Figures 7 and 8 showed that the performance of active management is cyclical.

We undertook some analysis for a forthcoming research paper that found two key variables to explain these patterns in active returns: correlation of returns and dispersion of returns. For the UK, we found that the average active manager performed better when either correlation was low or dispersion high, and best overall when both of these conditions held. Intuitively, this makes sense: active managers add more value from stock picking when markets distinguish the winners from the losers (low correlations), and this is compounded if the difference in returns between them is high (high dispersion).

On the other hand, active managers performed worst when correlation and dispersion were both high. This environment was evident after the Dotcom bubble and the global financial crisis. A possible explanation of the poor performance of the average active manager in such an environment is that the average manager has insufficient skill to identify the better performing stocks when all stock prices are falling.

**Figure 11: Average (monthly) excess returns in the UK (%)**



The 30-day cross stock correlation and dispersion is based on the FTSE 350 Index. Data from 1997–2016. Source: Datastream, Morningstar, Schroders.

The pattern in Japan and emerging markets is virtually identical. Even in the US, where active managers have struggled to add value, our analysis found that they successfully generated positive excess returns when correlations were low and dispersion high (but underperformed in all other environments).

## Outcomes – fixed income

Bond indices have weaker theoretical foundations than equity indices. There is little logic in investing in an index which gives the highest weight to the borrowers, such as the Italian government (or the Venezuelan government in an emerging markets context), which have issued the most debt. On top of this, the level of turnover, and therefore costs, in bond indices is much higher because new securities, which make up 20% of bond market capitalisation in any given year, have to be included in the index.

A clear illustration of these points comes from high yield and emerging markets debt sectors. In high yield, the largest ETF, the SPDR Bloomberg Barclays High Yield Bond ETF (“JNK”), has tracked its benchmark index (the Bloomberg Barclays High Yield Very Liquid Index) poorly (Figure 12).

**Figure 12: Consistent underperformance of the largest high yield ETF (%)**

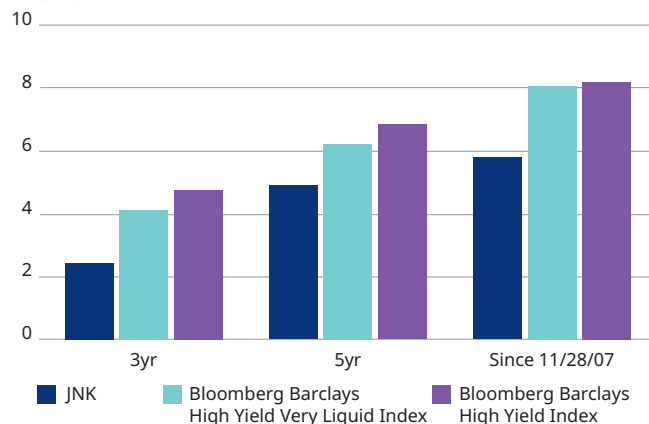


Figure shows annualised returns in US dollars to 30 April 2017, net of fees, for the SPDR Bloomberg Barclays High Yield Bond ETF (JNK), whose benchmark is the Bloomberg Barclays High Yield Very Liquid Index. Source: Bloomberg, SSgA. Past performance is not a guide to future performance and may not be repeated.

During the financial crisis, JNK struggled to replicate benchmark returns, indicating the mismatch in liquidity between an ETF and its underlying markets. Monthly discrepancies at that time were significant: although some of these misses at least partially offset each other (outperformance in one month followed by underperformance in the next), performance was 2.6% behind the benchmark over the September 2008 – March 2009 period.

Further, the need for ETFs to provide liquidity influences the choice of benchmark (the “Very Liquid” subset of the overall high yield market) and this too has cost investors returns. The broader high yield market, which an active manager would typically be benchmarked against, has done consistently better.

There is a similar picture in emerging markets debt, where the largest ETF tracking the US dollar index (“EMB” or iShares JP Morgan USD Emerging Markets Bond ETF) has underperformed by 0.8% annualized in five years<sup>18</sup>.

**Figure 13: The largest EMD ETF has consistently underperformed its benchmark (%)**

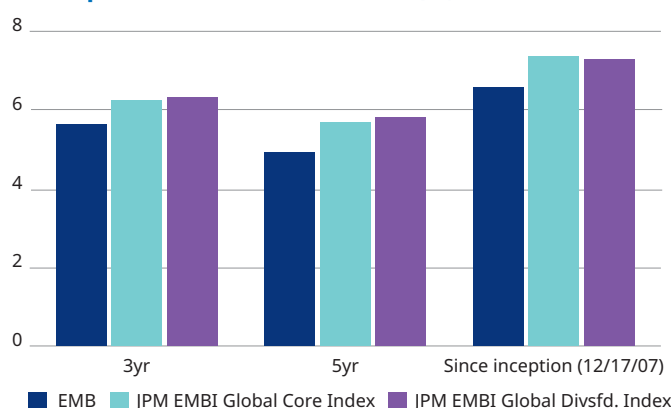


Figure shows annualised returns in US dollars to 30 April 2017, net of fees, for the iShares J.P. Morgan USD Emerging Markets Bond ETF (EMB), whose benchmark is the JPM EMBI Global Core Index. Source: iShares, JP Morgan. Past performance is not a guide to future performance and may not be repeated.

<sup>18</sup> See also *EM debt and the mirage of passive ETFs*, Schroders, April 2017.



Even in investment grade corporate bonds, the annual shortfall in ETF returns against the index is 0.4%. This bears out the point that bond markets do not lend themselves to index investing and an active manager does not need to beat the index to do a better job than passive.

As Figure 5 showed, the average active manager in high yield and emerging markets debt has not done well against indices either. However, given that it is passive funds and not indices that are investible, the scale of shortfall from ETFs in fixed income is a measure of the real benchmark.

## Conclusion

**We have shown that much of the data used to make the case for passive management overstates the argument: many investors in active equity strategies have beaten passive funds after fees. We accept that the characteristics of the US equity market, particularly large cap stocks, make this the hardest market to beat, but we believe it is incorrect to extrapolate from the US to other equity markets, where there is no evidence that active performance is on a secular downtrend. In bond markets the capitalisation weighted indices are both illogical ways to invest, and hard to track. And passive may be an impractical solution for investors who need to target a real world outcome by allocating to the right assets: they will need the skill of an active manager.**

**But there is a danger that where active management has not met expectations, investors feel that they should abandon it altogether. There is an element of mean reversion in most investment judgements, and this is no different: active performance is cyclical. Investors should not feel under pressure from the flows currently moving into passive strategies to follow suit. On the contrary, active managers fare better in some environments than others, and selling out of a manager with a strong philosophy and process after a short period of underperformance risks locking in underperformance.**

**We have also looked at the impact of factor investing, which is a potent disruptive force. Among other things, it is forcing active managers to justify that they have skill above and beyond the simple exploitation of factors. For many investors, factor-based strategies provide useful additional tools, and an attractive alternative to capitalisation-weighted passive approaches, although, again, individual factors may become crowded markets from time to time.**

**Active managers play an important role in the wider economy as stewards of the businesses they own and should focus on the sustainability of companies and business models. It is increasingly recognised that these activities are at least as valuable as the buying and selling of securities, and contribute to the successful allocation of capital.**

**Investors and asset owners should use active, factor investing and passive management alongside each other, choosing active in markets where it is likely to add value or where they have the resources to identify active skill. The potential value added from active management remains a critical tool in maximising return from a broad portfolio, and we believe that active management will in time start to regain share from passive.**

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