

JULY 2014

# Global equities: the value of an active approach

**The benefits of portfolio diversification across geographies, sectors and capitalisation bands are well understood. Truly active global investing approaches widen the investment opportunity set and can enhance the prospects for achieving strong risk-adjusted returns.**

**The difficulty is that simply being active does not guarantee outperformance. The degree of activeness and the approach to risk management are critical.**

**We consider the value of active global equity approaches, noting that well-diversified stock-picking funds tend to be associated with more consistent returns and lower drawdowns.**

## GOING GLOBAL

Taking an active global approach to equities empowers portfolio managers by providing the broadest investment universe from which to build portfolios. There is full flexibility to target various equity risk premiums via stocks from across sectors; countries; investment themes and the market cap scale. The benefit is that fundamentally driven portfolios can be based on high-conviction views from across the global spectrum.

Global portfolio managers also get a more joined-up perspective on the impact of global developments on corporate fundamentals. There can often be a lag between when these developments play out across regions, potentially offering global equity investors an advantage. The interconnectedness of economies and markets has never been greater; value chains increasingly span the world in many industries such as auto manufacturing, resources, logistics and media. A truly global perspective can offer genuine insights into the highly connected ecosystem in which companies operate today.

## THE WRONG TIME TO GO PASSIVE?

The highly macro-driven, risk-on risk-off environment of the post-crisis years created greater short-termism in markets and made it a more challenging environment for active managers to deliver alpha on a consistent basis. This has clearly been a contributory factor behind rising investor demand for passive products.

However, while offering some well-documented advantages, passive investing approaches also present some issues. Many passive approaches are based on the use of market capitalisation-weighted indices. The largest stocks in such indices are implicitly those that have already experienced strong past performance and the downside risk associated with these approaches can be material, given the tendency for these indices to expose investors to the full upside and subsequent downside of bubbles and busts in 'hot' sectors and markets.

The financial and sovereign crises underlined the fact that indices are slow to react to changing events that impact the relative riskiness and return prospects of different regions and countries. For instance, when a country's sovereign debt is upgraded or downgraded or when a major geopolitical event has some obvious regional asset allocations implications. Such events can take time to filter through to indices, giving active managers a time advantage.

## AT A GLANCE

- Investors considering an active global equity approach should ensure the funds they invest in are sufficiently active.
- Active share is a useful measure for comparing global funds and research indicates that well-diversified equity portfolios with a high active share tend to outperform.
- Investors may choose a diversified global fund directly, or alternatively, construct a well-diversified portfolio using a multi-fund approach.
- Diversified active strategies provide a high level of 'utility' owing to the many and varied ways they can be used within investor portfolios.

### Decreasing volatility

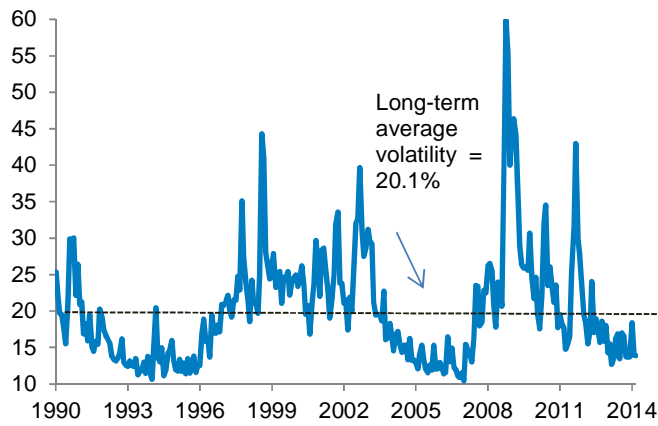


Chart 1. Source: DataStream, June 2014; chart shows implied volatility as measured by the VIX Volatility Index.

### Decreasing policy uncertainty

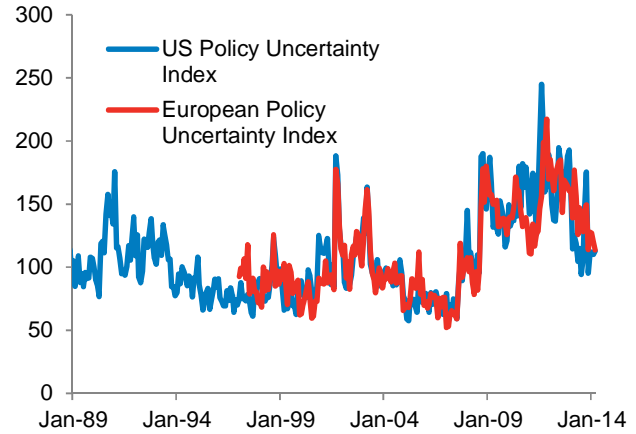


Chart 2. Source: policyuncertainty.com, June 2014; Note: European series only starts in January 1997.

## A RETURN TO FUNDAMENTALS

After an extended period of outflows, it is clear that demand for active strategies has picked up since 2013. This recovery appears linked in part to some significant market dynamics that collectively support the backdrop for active investing. Since the start of 2013, implied equity volatility as measured by the VIX Volatility Index has averaged 14.3%, a sharp decline from the long-term 25-year daily average of 20.1% (see chart 1). Anchored volatility tends to support demand for equities, allowing valuations to expand and helping to explain the market re-rating over the past 18 months.

A key reason why equity volatility in the 2011-2012 period was elevated was the unusually high degree of uncertainty connected to the European sovereign debt crisis. Macroeconomic and policy developments created a risk-on, risk-off tendency, with little attention paid to stock-specific drivers. With uncertainty easing (see chart 2) and macro factors no longer playing such a dominant role, it is little surprise that global equities have recovered.

As stock fundamentals come back to the fore (see charts 3 and 4), investors are refocusing on microeconomic and company-specific factors. This helps to explain the resurgence of active equity inflows. In the last five quarters to March 2014 there was a sizeable net inflow of USD264bn into active funds (Lipper data, April 2014). Moreover, with the exception of the US market, most inflows into global equities since 2013 have gone to active rather than passive strategies – in the five quarters to March 2014, total flows to active equities (excluding the US market) amounted to USD107bn, more than double the amount of inflows to passive funds.

### Return dispersion between global sectors

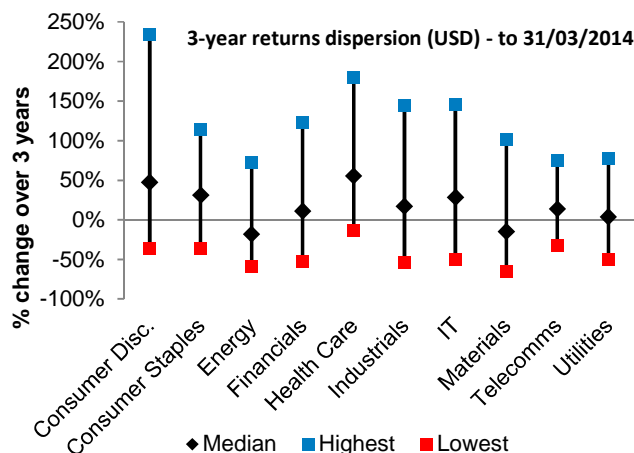


Chart 3. Source: RIMES, based on price returns in USD of stocks in MSCI AC World Index, with the 10 best- and worst-performing stocks in each sector ignored.

### The rising % of return explained by stock-specific factors

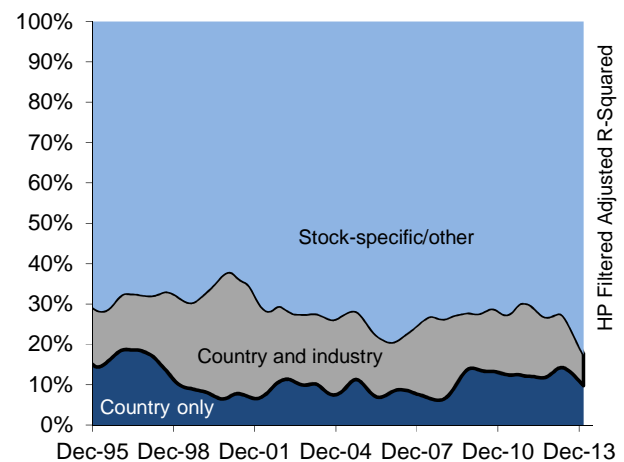


Chart 4. Source: Citi, March 2014.

## RESEARCH IN THE GLOBAL CONTEXT

The prerequisites for successful, truly global and truly diversified active management are many. Given the breadth of the global investment universe, foremost among these requirements is a deep and well-resourced global research base.

With a well-resourced research team, the potential of finding undervalued companies and the alpha that can be extracted from an active approach is higher. Manager skill, process, and research resources are key parts of the broader toolset that can turn the theoretical scope to deviate from the index into actual outperformance of the market. It should be obvious that only active approaches can have such aspirations with the degree of activeness being an important determinant of the chances of success.

## MEASURING ACTIVE MANAGEMENT

A key challenge for investors therefore is measuring and differentiating the extent of fund activeness. There are two main measures for doing this. The longer-established and most widely used measure is 'tracking error' but more recently a new measure called 'active share' has been gaining popularity.

### Tracking error

Tracking error, the more widely used measure of active management, gauges how much a portfolio's return varies from that of its index. It is generally calculated as the standard deviation of the difference in portfolio and market index returns. Intuitively, one can therefore think of tracking error as portraying the volatility of returns not explained by movements in the fund's benchmark index.

$$\text{Tracking error} = \text{stdev}(R_{\text{portfolio}} - R_{\text{index}})$$

The above formula represents the ex-post measure where 'stdev' represents standard deviation and 'R' represents return. There is also a forward-looking measure – ex-ante tracking error. This is similar to the measure above with the exception that it uses estimates of standard deviation and correlation in its calculation.

### Active share

Active share provides an indication of how much an active fund's portfolio of holdings collectively differ from its designated comparison index in percentage terms. (See the formula below;  $w$  = weight). It was popularised in an academic paper by Antti Petajisto and Martijn Cremers.<sup>1</sup>

$$\text{Active share} = \frac{1}{2} \sum_{i=1}^N |w_{\text{portfolio}, i} - w_{\text{index}, i}|$$

There are two ways that the active share ratio can be altered:

- *Over/underweighting stocks in the comparison index (including zero weighting)*
- *Including stocks that are not in the comparison index*

Considering some extreme examples can help to understand the active share concept better – any portfolio that holds all the stocks of its comparison index and in exactly the same weightings would have 0% active share; on the other hand, any portfolio that holds none of the comparison index holdings would have a 100% active share. Logically, any fund with a zero active share cannot beat the index. The greater the extent of deviation from the index, the greater the potential scope for outperforming the index. For example, to outperform by 2%, a fund with active share of 80% would need to generate 2.5% of alpha on average from its active positions, but a fund with active share of 40% would require alpha of 5% from its active positions to get the same level of outperformance.

## DIFFERENTIATING BETWEEN FUNDS

As outlined in the Cremers and Petajisto paper, a fuller picture of active management and the degree of fund activeness can be attained by looking at both active share and tracking error data in conjunction. Chart 5 overleaf classifies fund managers according to their level of active share and tracking error.<sup>1</sup> The most obviously problematic group is the one with the lowest active share coupled with low tracking error. This is considered to be the *closet indexing* camp; defined by Cremers and Petajisto (in the US mutual fund

context) as managers with an active share of less than 60%. These portfolio managers are more likely to underperform after charging active fees because, as explained above, their low activeness makes it intrinsically more challenging for them to beat the index. In short, the less active the fund, the harder the task of outperforming.

Funds with high tracking error yet low active share must be doing something for their returns to deviate widely from the index. Since they are not stock-picking (which would show up in high active share) they must be taking *factor bets* – for instance, by trying to target a particular growth or risk premium in the market or a specific sector. Funds with high active share and low tracking error are classified as *diversified stock-pickers* – these funds aim to pick the best stocks but remain diversified across sectors, which means they have limited factor exposure and therefore lower tracking error. Lastly, funds with both high tracking error and high active money tend to be *concentrated funds*. They are classified as such because their high active share indicates stock-picking, while their high tracking error indicates they are also taking factor bets.

### Funds classified by active share/tracking error

		Tracking error	
		Low	High
Active share	High	Diversified stock-pickers	Concentrated stock-pickers
	Low	Closet indexers ( < 60% active share)*	Factor bets

Moderately active

Chart 5. Source: FIL Limited. Cremers, K.M.J and Petajisto, A. (2006) "How Active is your manager? A new measure that predicts performance".

### WHICH TYPE OUTPERFORMS?

Petajisto's 2013 study,<sup>2</sup> which used more recent and more extensive data compared to the 2009 paper, is the most comprehensive active share study ever conducted in relation to the US equity mutual fund market. The results of the study are shown in chart 6 overleaf and can be summarised as follows:

- The only class of funds to conclusively outperform over the 1990-2009 period were the '**diversified stock-pickers**' – i.e. those with high active share and low tracking error. For funds falling in this group, it appears that high active share tends to be put to good use through effective stock selection, while good diversification across sectors limits factor exposure, ensuring low tracking error.
- Logically, funds combining low active share with high tracking errors can only be achieving this by taking on a high degree of factor risk (Petajisto gives the example of a fund which has all of its overweight positions just in the technology sector), therefore putting them in the '**Factor bets**' category – in Petajisto's study, these were the worst performers. The implication of this is that managers who focus solely on factor tilts and the timing of these bets are not rewarded in the market.
- At the opposite extreme compared to the diversified stock-pickers is the '**closet indexer**' category, featuring those funds with both low active share and low tracking error. Unsurprisingly, this group underperformed because the managers effectively didn't give themselves enough chance of outperforming, neither in terms of stock selection nor factor selection/timing.
- '**Concentrated stock-pickers**' – those combining both high active share and high tracking error – moderately underperformed over time. Although these portfolio managers may add value through their ability to pick stocks, their efforts to combine this with picking factors over time does not work according to this study.
- Finally, in the Petajisto framework, by far the largest category of funds was those with neither high active share nor high tracking error, but also with not such low active shares as to place them in the closet indexing group – this '**moderately active**' group, also underperformed modestly.

## Petajisto (2013) study: stock-pickers add value

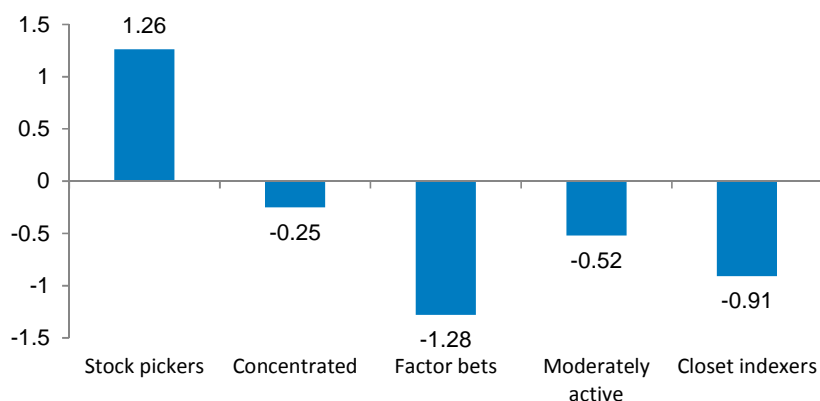


Chart 6: Antti Petajisto, 'Active Share and Mutual Fund Performance', *Financial Analyst Journal* (Vol. 69); July/August 2013. Note: This study was based on a sample of 1,124 US funds.

### APPLYING ACTIVE SHARE TO THE GLOBAL FUND CONTEXT

Given the size and diversity of the US equity market and its large weighting in any global equity approach, the Petajisto study should have some relevance in the global fund context. The most important messages should still apply – as in the US funds space, closet indexing shouldn't work and the diversified stock selection approach is probably the one that is most likely to be rewarded in the global market. In fact, it is possible to go further and argue that the rewards for stock-picking approaches can be greater in the global context, owing to the likelihood that the wider global investment universe provides more opportunities and is less efficient than the US market.

The potential pitfalls of a concentrated approach are also worth noting. If Petajisto's proposition that fund managers are less good at picking factor exposures than picking stocks also holds true in the global context, then the conclusions would be similarly negative for concentrated global funds. However, greater caution may be warranted in seeking to cross this argument over into the global context since in the Petajisto study the underperformance of concentrated US funds was actually not very large (25bps) and the sample of funds classified being in this category was small (just 45 funds), resulting in a low significance level (t-statistic).

Interestingly, it is also worth noting that in the original Cremers and Petajisto study, concentrated funds very moderately outperformed their indices on average, while they moderately underperformed in the later Petajisto (2013) study. Since the latter included the tumultuous financial crisis period, this could be indicative of concentrated approaches providing less downside protection in declining markets compared to diversified stock-picking approaches. Table 1 below from Petajisto (2013) supports this point by showing that despite the strong bounce back of 2009, concentrated funds, unlike their diversified stock-picking counterparts, were still unable to recoup the losses they incurred in 2008, resulting in negative returns over the whole 2008-09 timeframe.

### Stock-pickers can provide better downside protection in downturn periods

	Financial risis 2008-09*	Recovery 2009**
<b>Stock-pickers</b>	0.97%	6.09%
<b>Concentrated</b>	-2.59%	9.41%
<b>Factor bets</b>	-1.72%	2.21%
<b>Moderately Active</b>	-0.32%	1.12%
<b>Closet trackers</b>	-0.83%	-0.66%

Table 1: Source: Antti Petajisto, 'Active Share and Mutual Fund Performance', *Financial Analyst Journal* (Vol. 69); July/August 2013. \*This represents the entire financial crisis Jan-08 to Dec-09 \*\*This is the recovery period only Jan-09 to Dec-09.

## CONSTRUCTING GLOBAL EQUITY EXPOSURES

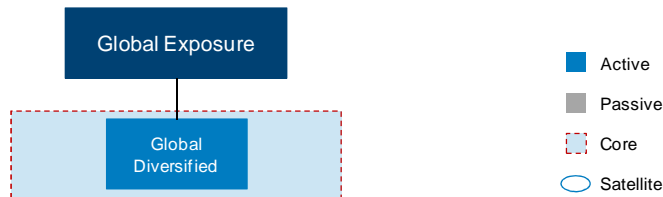
How investors build their global equity exposure will depend on the type of investor, their objectives and constraints. There are three main ways to build exposure: 1) a single-fund approach; 2) a simple core/satellite approach and 3) a complex core/satellite approach. In all these approaches, active investors will essentially seek to optimise risk-adjusted returns net of fees.

In the core/satellite construct, the core is analogous to the nucleus of an atom; this core can be either a single passive or a single active fund. The satellites, on the other hand, are analogous to electrons surrounding the core (nucleus); typically these are active funds used for the pursuit of alpha.

While there can be a potentially vast number of variations, below we provide some simplified examples for the purpose of illustration.

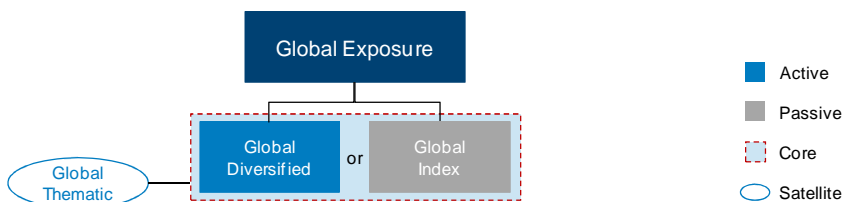
### Single-fund approach

The simplest way to construct global equity exposure is via a single-fund approach where just one fund is used. In this instance, the lessons of the Petajisto study are arguably most relevant. A diversified stock-picking global fund is a good approach if the objective is to maximise the payoff from stock-picking while controlling for factor risks. A concentrated single strategy could work in theory but it would expose the investor to higher factor risk, resulting in potentially greater return volatility and a higher risk of underperformance in declining market phases.



### Simple core/satellite approach

The simple core/satellite approach to constructing global equity exposure involves the use of two or more funds. One of the simplest versions, as depicted below, would involve just two funds featuring a passive or a diversified global fund in the core along with one active fund satellite. The core provides good diversification and low (or no) tracking error relative to the index. On the other hand, the active satellite component seeks to deliver alpha. In the example depicted below, the active satellite is 'thematic', i.e. the investor is seeking alpha through investing in a market theme which he believes will deliver value over the medium-to-long term. If the core is passive, then the investor theoretically has greater scope for a more concentrated active fund satellite but care must be taken as this combination may contain more factor risk compared to a passive core fund coupled with a highly diversified stock-picking fund as the satellite.



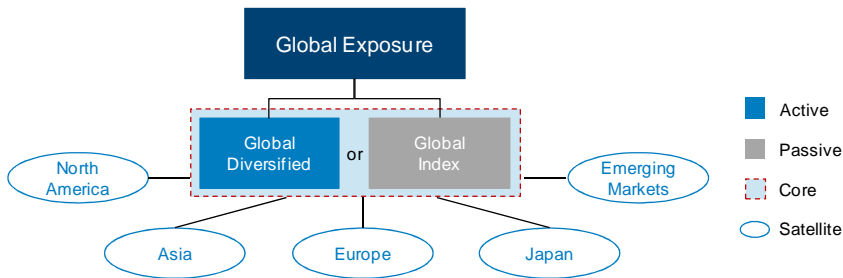
### Complex multi-fund approach

The third alternative for constructing global exposure is to combine a larger number of funds but in a structure that allows for more alpha 'levers' to be pulled. While potentially more complex, this approach has the scope to create more specific and targeted types of global exposure and opportunity for alpha, depending on an investor's beliefs, objectives and constraints.

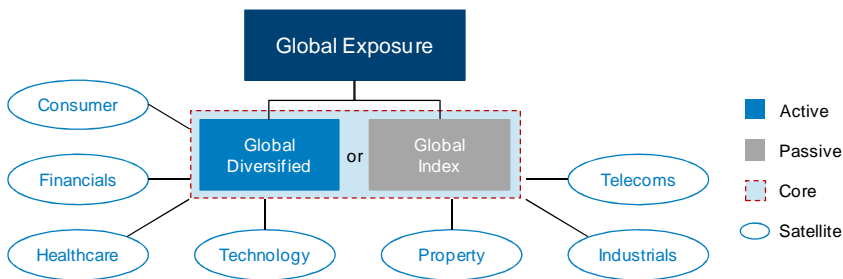
This approach can be used to construct a wide array of diversified global exposures with either an active or passive fund at the core and a range of active satellite funds

providing regional, sector, or thematic exposures. As depicted in the examples below, the choice of satellites will depend largely on the constructor's views about which mode of asset allocation they feel they can add most value through.

Example 1 – **Regional satellites** – allowing constructors the flexibility to express regional views, including tactical positions based on global economic developments



Example 2 – **Sector satellites** – allowing constructors the flexibility to express sector views, including tactical positions based on global sector developments



Example 3 – **Thematic satellites** – allowing constructors the flexibility to express longer-term global thematic views

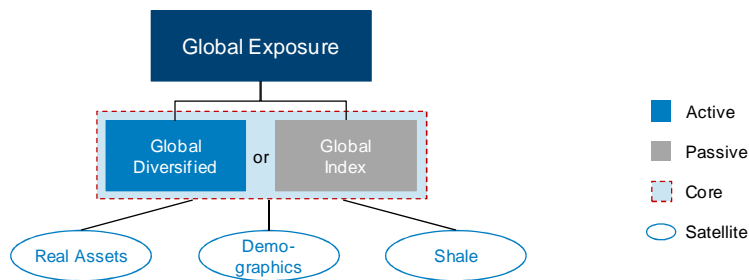


Chart 7. Source: FIL Limited

The anchor at the heart of all these strategies should offer an element of stability and predictability, so a diversified or passive global fund tends to be a good option. A concentrated fund with potentially high factor exposure may be less appropriate for providing the kind of stable anchor that these constructs require. Invariably, a fund that produces a factor tilt in the core is more likely to require offsetting tilts in the satellites and any investor using this approach will have to be wary of ending up in a situation where they are constantly 'chasing their own tail'. Concentrated funds can work as satellites within this framework, but this further underscores the need for a stable and diversified fund in the core.

An alternative method is to bypass any form of core and instead construct a global exposure based only on a collection of regional, sector or thematic funds. Although perfectly feasible, in practice this approach can be more challenging to manage and potentially less stable.



## FIDELITY AND ACTIVE SHARE

Having discussed the benefits of diversified stock-picking approaches in active equity portfolios, it is instructive to see how Fidelity fares on this measure: Chart 8 below shows, the average active share of Fidelity funds at the end of March 2014 was 72%, significantly above Cremers & Petajisto's threshold of 60%. The average measure accords equal weightings to smaller funds, but this can be controlled by taking the asset-weighted active share ratio of all Fidelity funds - this provides a similar figure of 71%.

### Fidelity aggregate active share <sup>3</sup>

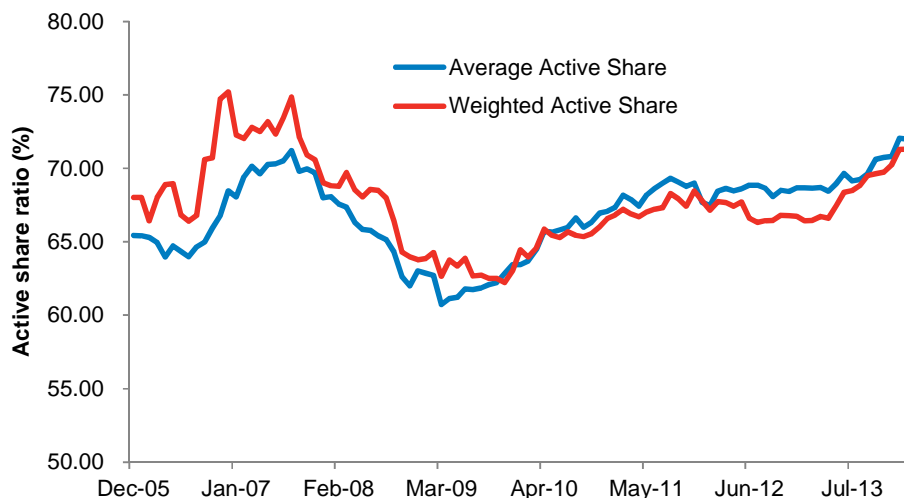


Chart 8: FIL Limited, April 2014 The chart shows aggregate active share levels based on retail and institutional funds investing in the Global, US, Europe and Asian regions, managed by Fidelity Worldwide Investment. See footnote 3.

Table 2 below shows that Fidelity's global and emerging market funds are particularly strong in terms of active share with an average active share of 93%. Additionally, the very high active share of Fidelity's FAST funds is especially worth noting – these funds can and very often do achieve active shares of more than a 100% owing to their long and short extensions.

### Fidelity global funds' active share and tracking error

Fund Name	Active Share	Tracking error
<b>Global</b>		
FAST Global	115%	4.5%
FF Global Opportunities	85%	2.0%
FIF Global Special Situations	94%	2.5%
FIF Global Focus	87%	2.0%
FIF Global Dividend	89%	3.6%
<b>GLOBAL emerging markets</b>		
FAST Emerging Markets	111%	5.1%
FF Emerging Markets	84%	3.7%

Table 2. Source: FIL Limited, June 2014.

### CASE STUDY: GLOBAL EMERGING MARKET EQUITIES

Taking the global emerging equity market as a case study, we can run an analysis of active equity funds that shows active money (in quartile bands) versus excess return over the last five years. The higher the active money band, the greater the median excess return and the greater the dispersion of returns. The results are shown below.



## Active money and excess returns

Offshore Global Emerging Market equity funds (% that beat the index)

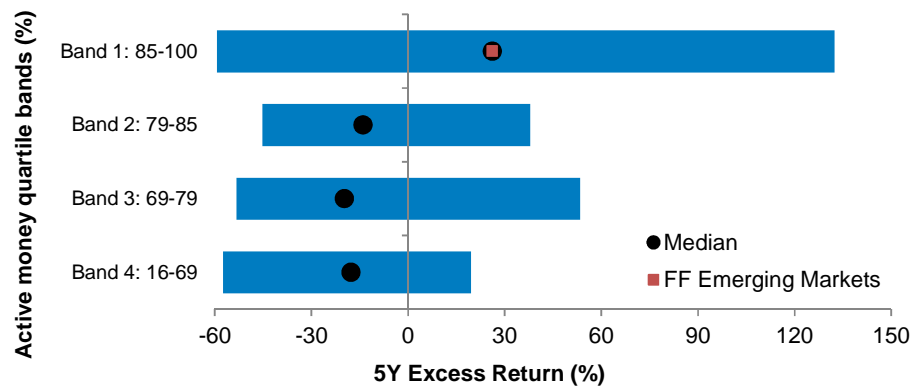


Chart 9 Source: Morningstar Direct. Basis: nav-nav, income reinvested in USD to 31/03/2014. Includes funds in the following sectors: Global Emerging Market Equity, primary share in GIF classification is Offshore Territories. Excludes fund of funds, index trackers, funds holding <10 stocks or whose latest full holdings is older than 01/01/2013. Active money based on latest disclosed portfolio only (rather than a five-year average active money which is not available). All stats versus the MSCI EM NR index (including active money) regardless of each individual funds primary prospectus benchmark.

## CONCLUSION

Investing in global equities opens up a vast opportunity set for investors and taking a truly active approach to global investing can improve risk-adjusted returns. However, simply being active is not enough. The degree of activeness has been shown to be a crucial factor for achieving success.

Investors considering a genuinely active global approach should avoid funds that do not deviate from the index sufficiently because they effectively do not give themselves the chance to outperform enough to pay their fees. Concentrated global funds can have a better chance of outperforming but their lack of diversification means they are inevitably more exposed to factor risk and research in the US fund space suggests they underperform on average with a greater risk of poor performance in market downturn periods.

A more promising and reliable alternative is available however from diversified stock-picking strategies – their stock-picking can give them high 'active share' and hence improved scope to outperform their indices, while their higher level of diversification controls for factor risk and can help to limit drawdowns in the event of market downturns. In addition, diversified active strategies can provide a high level of 'utility' as they can be used in many and varied ways within investor portfolios.

## References

1. Cremers, K.M.J and Petajisto, A. (2006) "How Active is your manager? A new measure that predicts performance".
2. Active Share and Mutual Fund Performance. Petajisto, Antti. CFA Institute, July/August 2013, Financial Analysts Journal, Vol. 69, pp. 73-93.
3. FIL Limited, April 2014. Active share in the chart is based on actual weights; these are rolled up to issuer level. The calculation takes the sum of the overweight positions plus net cash. It has been calculated for every representative fund, and a simple average plus weighted value is given (the latter is based on the total assets managed by the pm). The weighted value takes into account the PM may have one representative account that is managed the same way as his other accounts. Each fund is measured against its own benchmark.



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