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Active share and multi-manager global equity portfolios

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"Active Share and Mutual Fund Performance" by Antti Petajisto, *Financial Analysts Journal*, Vol 69, Number 4, 2013

The level of active share in global equity portfolios has received increasing attention over the last 10 years. It is another useful metric for assessing the multitude of different investment strategies available. When combining managers together to form a multi-manager global equity portfolio, investors should still aim to keep active share relatively high.

KEY POINTS FROM THE PETAJISTO PAPER

In the paper, the author continues the work he started in 2006 on using active share as another metric in assessing equity investment strategies. The active share of a fund is the percentage of its portfolio that differs from a fund's benchmark index. For an all-equity fund that has no leveraged or short positions, the active share of the fund will always be between 0 and 100%.

Figure 1: Active share

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

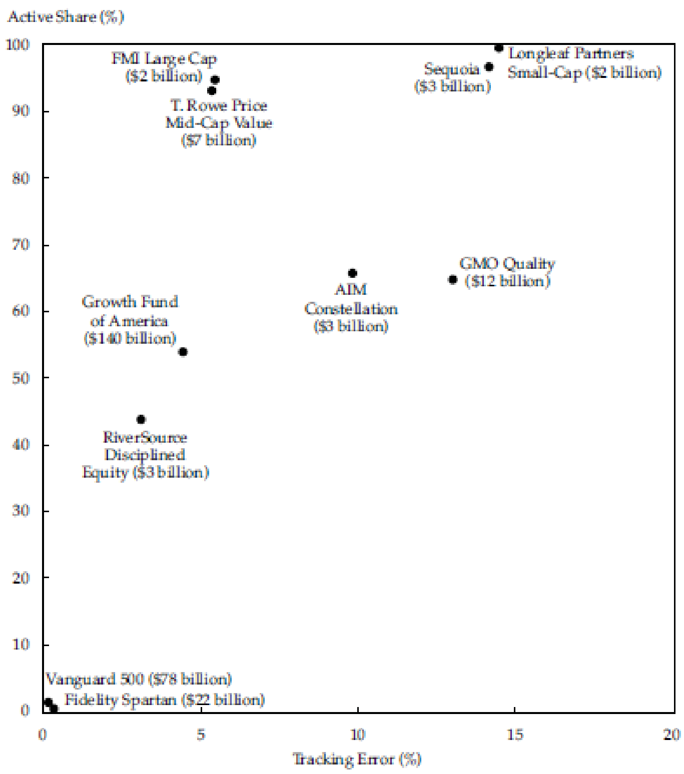
Where:
- Wfund, i = the weight of stock i in the fund's portfolio
- Windex, i = the weight of stock i in the fund's benchmark index
- And the sum is computed over the universe of all assets

The author uses active share in conjunction with tracking error to provide a picture of the degree to which a group of US equity fund managers were "active".

Figure 2: Different types of active investment management

Sources: Cremers and Petajisto (2009)

Figure 3: Examples of US mutual funds in each category (2009)



The paper focuses on the relationship between tracking error, active share, and performance for US equity managers, typically measuring these metrics against one of the many US equity benchmarks such as the S&P500.

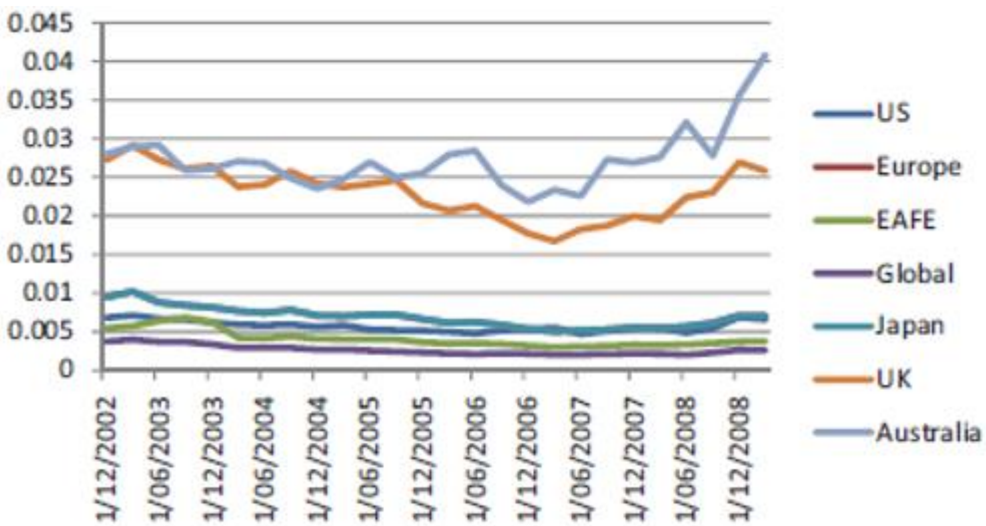
The key findings of the paper include:

- The average actively managed fund underperformed low cost index funds net of fees and expenses;
- Active share can be used alongside tracking error to separate managers into several categories; and,
- "Concentrated stock pickers" added value versus their benchmarks while managers following a "factor bets" or "closet indexing" strategy had not.

APPLICATION TO GLOBAL EQUITY FUNDS

It is harder to find comprehensive studies on global equity managers. Portfolio holdings data is not as readily available for global strategies, as there is no global equivalent of the mandatory, quarterly SEC filings in the US. However, the key takeaways from the paper should hold true for global equity funds, as the two universes have a number of factors in common. Both the US equity universe and global equity universe consist of a large number of securities and therefore a low level of concentration, as shown in Figure 4.

Figure 4: Developed market standardised Herfindahl Index comparison
(December 2002 – December 2008)



Sources: Russell Investments

In both cases, the commonly followed benchmarks cover a large part of the equity universe, but there are a significant number of investable securities not included in the benchmark. In both cases, there are a range of investment strategies taken to selecting stocks, with a wide range of portfolio construction approaches. There is anywhere from twenty to many hundred stocks common in both and concentrated portfolios can be built with risk/return characteristics in line with the market benchmark.

WHAT DOES THIS MEAN FOR THE MULTI-MANAGER APPROACH TO GLOBAL EQUITIES?

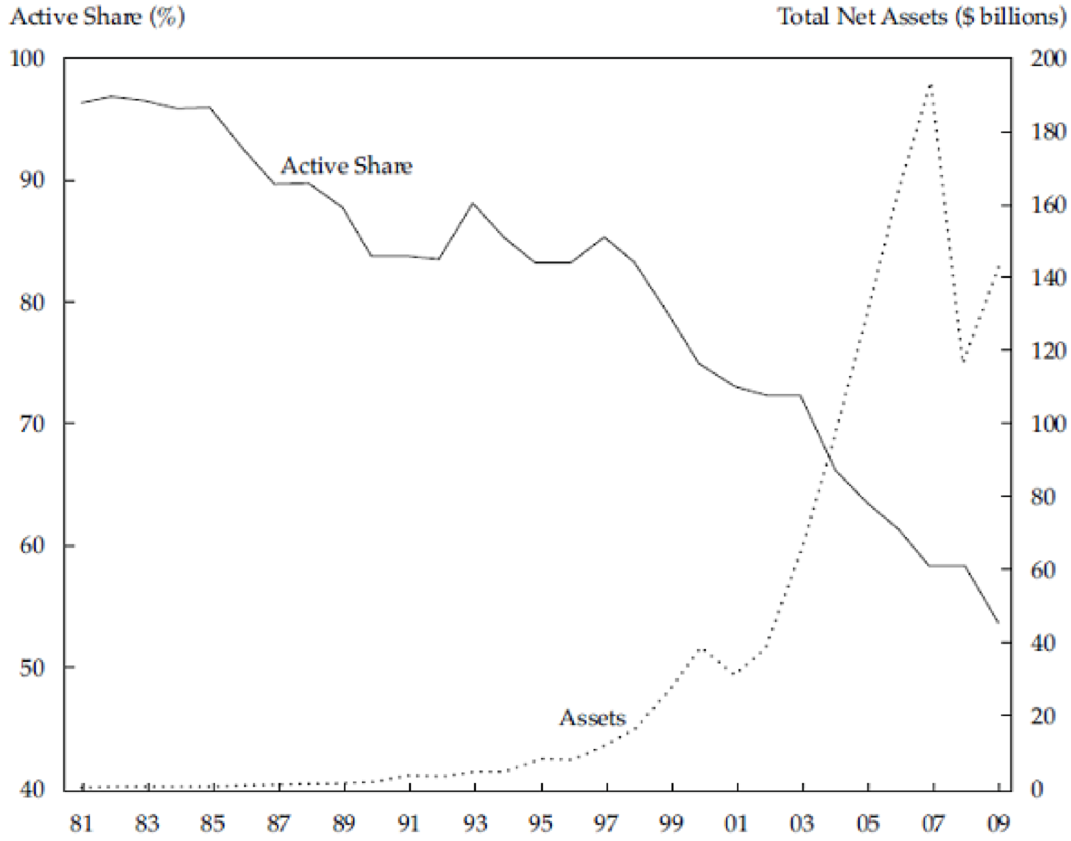
Combining more than one global equity manager can involve any number of combinations given the multitude of strategies available and the different allocation to each that can be applied. Therefore there is a wide range of outcomes for the multi-manager portfolio in terms of tracking error and active share.

There are a number of reasons for using more than one manager in global equities. A common dual aim is to reduce risk of short-term underperformance, while maintaining the overall expected added value (often 2% per annum for global equities).

The first point - reduce risk of short-term underperformance - is usually expressed in terms of a lower tracking error for the overall multi-manager portfolio. This can be achieved by combining different investment styles which have managers focusing on their area of expertise (value, core, growth, developed markets, emerging markets, large cap, mid cap, or small cap equities). This should result in each manager having a low correlation of added value versus the other managers over a market cycle.

One extreme would be to have many mangers, each weighted such that the overall portfolio ends up very similar to the benchmark. That is, the overall multi-manager portfolio would have a low active share and low tracking error, despite the individual managers all taking appropriate active risk. This would make it difficult, if not impossible, to meet the aim of maintaining the expected added value. The risk of over-diversifying is raised by Petajisto in reference to the Global Growth Fund of America which had 10 or more individual portfolio managers working independently to build a US equity portfolio. Depending on the extent to which the individual manager bets cancel each other out, the active share of the overall portfolio can vary across a wide range as has been the case over the 30-year period shown.

Figure 5: Growth fund of America's Active Share and Assets, 1981-2009
(December 2002 - December 2008)



Note: Active Share and total net assets are shown at year-end.

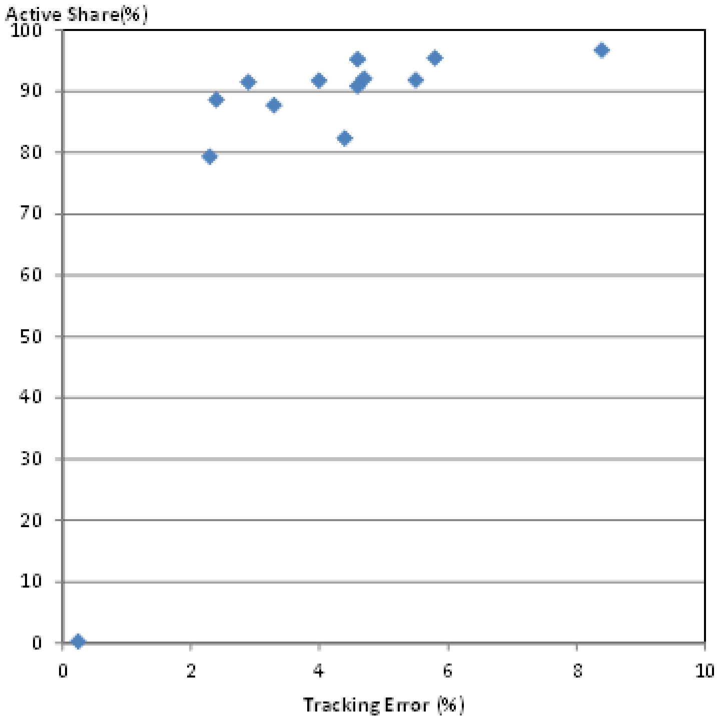
The other end of the spectrum would be having managers who all have a similar approach/style, resulting in similar stock holdings. If the individual managers all have a high active share, and also have a high degree of stock overlap, the overall portfolio will maintain a high active share. However, there will be limited reduction in tracking error for the overall portfolio, with it suffering when that approach/style is out of favour.

Building a multi-manager global equity portfolio therefore involves striking a balance between both extremes. Targeting an acceptable range of both tracking error and active share for the overall portfolio is a useful framework to adopt. Active share should be kept relatively high to retain the concentrated stock picker characteristics that Petajisto found to be most successful in outperforming the benchmark.

Petajisto drew a line in the sand at 60% active share for US equity fund managers - below which he classified managers as Closet Indexers (unless the tracking error was very high, in which case they were labelled Factor Bets).

Given the global equity universe is even more diverse with a much larger universe of securities, most active managers with less than 250 stocks in the portfolio will have an active share above 80%. Managers with 30 to 70 stocks will typically have an active share in the high 90s. Figure 6 below shows typical active share and tracking error for a variety of active, long-only global equity managers.

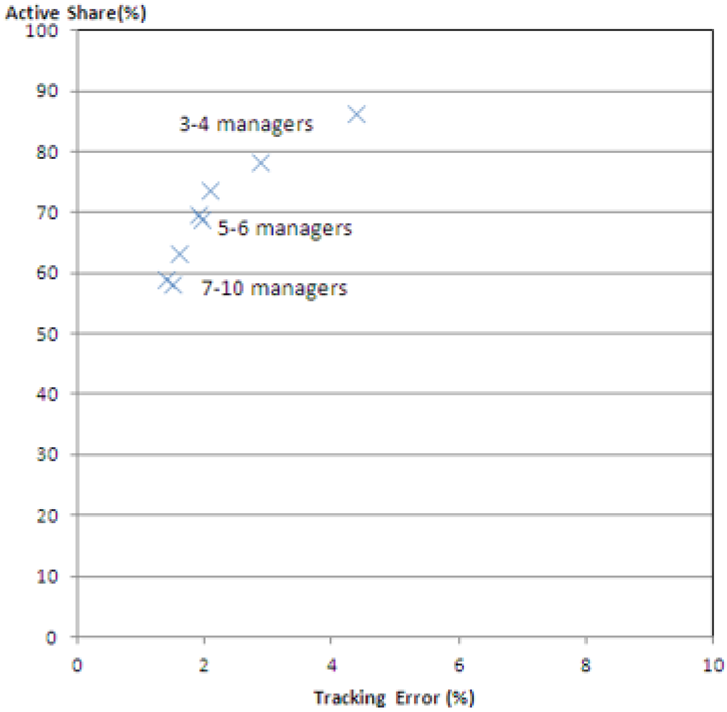
Figure 6: Examples of funds in global equity



Notes: Strategies offered by large, well known US- and European-based global equity managers available in NZ. As at Q1 2015.

Assuming global equity managers with differentiated styles are chosen to combine, as soon as the number of managers moves above four or five, active share typically moves towards 60%. An exception would be if every manager took a concentrated approach to portfolio construction and typically held 20 to 40 stocks in the portfolio. Figure 7 shows a range of multi-manager combinations of global equity managers, all of whom individually have an active share greater than 80% and a tracking error above two.

Figure 7: Examples of multi-manager funds in global equity



Notes: Multi-manager portfolios constructed of strategies offered by large, well known US- and European-based global equity managers available in NZ. As at Q1 2015.

ASSESSING GLOBAL EQUITY MANAGERS

If the aim is to maintain high active share in a multi-manager portfolio, this will impact how each manager is assessed. A common approach to assessing active managers in any asset class is to use a mixture of quantitative and qualitative methods. Quantitative research will typically look at portfolio characteristics, risk profile (such as active share and tracking error), past performance and past performance volatility - ideally over at least a full market cycle. Qualitative assessment usually involves analysing each equity fund manager in terms of people and parent, philosophy and process and portfolio construction.

The good news is that lowering the number of managers allows the luxury of getting to know a smaller number of managers on a much more detailed basis. As well as knowing how the portfolio of each manager is currently constructed, it is necessary to understand to what extent the key portfolio characteristics will change over the course of a market cycle. The three qualitative "Ps" are inter-related.

- Philosophy and Process: Look for a philosophy that is enduring, clearly articulated, supported by some form of empirical research, and shared throughout the investment team. The investment process should reflect the philosophy and be definable, transparent, and proven over a number of market cycles.
- Portfolio construction: Look for a good understanding of the active risk taken in constructing the portfolio. Quantitative measures are useful but each will have some short-comings, and qualitative measures are equally important.
- People: Look for an ably resourced and well-led investment management team, all of whom are committed to the particular style of investing. The firm/parent needs to understand the investment. This relates back to the Philosophy and Process. For example, if the process and philosophy is clear, concise and well understood and owned by the investment team, the current Portfolio Manager or co-Portfolio Managers become the current custodian of the investment process. This is typically more enduring, with less key-man risk, than an investment team led by one "star" portfolio manager, with a team of analysts who do his/her bidding.

SUMMARY

Petajisto makes the case that concentrated stock pickers have a better track record in adding value in US equities. Given the similarities between US equities and global equities, it is reasonable to assume the same should hold true for global equity managers.

In building a multi-manager portfolio of global equity managers, the aim should be to keep the active share relatively high, in order to avoid over-diversification and moving back towards the Closet Indexing strategies that Petajisto helped to "out" over the last 10 years. This is a very simple approach to investing in global equities, but requires a greater level of knowledge and analysis on each manager.

Read "Active Share and Mutual Fund Performance"

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