Fund Selection - Picking The Winners

by Graham Harrison

There is an excellent illustration used by Frank Russell that compares the world record for each of the ten track and field events comprising the decathlon with the performance typically recorded by the world's top decathletes. Not surprisingly the specialists beat the all-rounders in each event by a significant margin.

In building a portfolio of funds (rather than buying a balanced fund) investors are seeking to benefit from this performance differential between the generalist and the specialist. In this article we look at whether the standard of fund performance is constant over time. Later we will look at whether it is possible to pick winners by looking at the form book. Does history provide any clues to future performance. Finally, we will be examining whether any fund management houses display out-performance across the range of asset classes or whether the evidence suggests that keeping a small core list of managers will lead to disappointment.

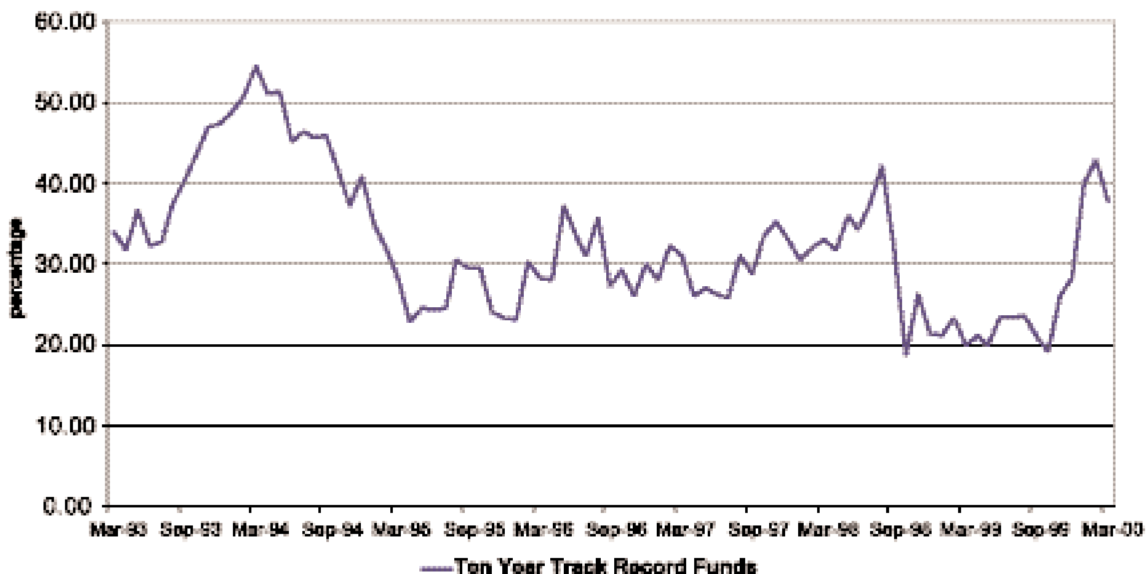
So for an investor seeking to pick the best funds can an independent yardstick, such as a benchmark index, be used as a consistent filter over time? Returning to the athletics analogy, is the number of fund managers reaching "Olympic standard" a constant?

We managed to identify some 2403 funds with a track record of ten years to 2000. For each of these funds, ARC has

Figure 1

Benchmark Group	% of Funds	Benchmark Group
FTSE All-Share Index	22.5	Japanese Equity
World Equity	13.0	Other Fixed Interest
UK Fixed Income	10.7	International Fixed Interest
European Equity	10.4	UK & International
North American Equity	10.4	UK Balanced
Emerging Markets Equity	5.6	Far East (Incl Japan) Equity
Far East (Ex Japan) Equity	5.4	

Figure 2



allocated a "benchmark" index that reflects the description of the investment universe within which the fund is operating. These indices are all well-constructed and maintained indices or composites of such indices.

In total circa 75 different benchmarks have been allocated to these funds and in each case the total return of the index has been taken: that is income has been reinvested on the ex dividend date (net of withholding taxes if no class of investors can reclaim them). If we allocate each of the benchmarks to a broad asset class, the breadth of the fund universe being examined becomes clear.

To investigate the evidence for fund manager skill being a constant, we took the universe of funds and plotted over time what percentage of funds recorded out-performance of their benchmarks on a risk-adjusted basis over the previous 36 months. The results are presented in *figure 1*.

What is immediately striking is that the percentage of funds that have beaten their benchmarks over the previous three years has shown significant fluctuation over the period. Why might that be? Surely fund manager skill levels are not fluctuating this much?

Examining what was happening in the financial markets during this period is very revealing and perhaps provides explanations for many of the more severe shifts.

The overall peak was seen for the period ended March 1994 when just under 55% of all funds beat their benchmarks. In the latter stages of 1993 markets were rising very rapidly on a wave of cheap money fuelled predominantly by slack US monetary policy. Emerging markets in particular were booming, many individual markets rising by 100% or more during the year. The party came to an abrupt end in the first quarter of 1994 when the US Federal Reserve raised rates and confidence began to ebb away. Just twelve months later only around 23% of funds had managed to record out-performance of their benchmarks.

The next key financial event was the impact of the Russian debt crisis and the collapse of Long Term Capital Management (LTCM). Once again liquidity was sucked out of the financial system and fund managers struggled to keep pace with their benchmarks. In the months following the crisis the percentage of funds with a positive RAP fell to just 20% and funds generally struggled over the next year.

However, the technology, media, and telecom-munications (TMT) boom in the US and then globally brought with it a significant rise in percentage of funds that were recording out-performance of their bench-marks. At the start of 2000 some 40% of funds had outperformed their bench-marks over the previous 36 month period on a risk-adjusted basis.

So the evidence suggests that financial market conditions have a significant impact on the ability of the fund management universe to meet their benchmarks. Over the period as a whole the average percentage of funds beating their benchmarks has been around one third. But that percentage has fluctuated from nearly 55% down to under 20% *figure 2*.

Figure 3

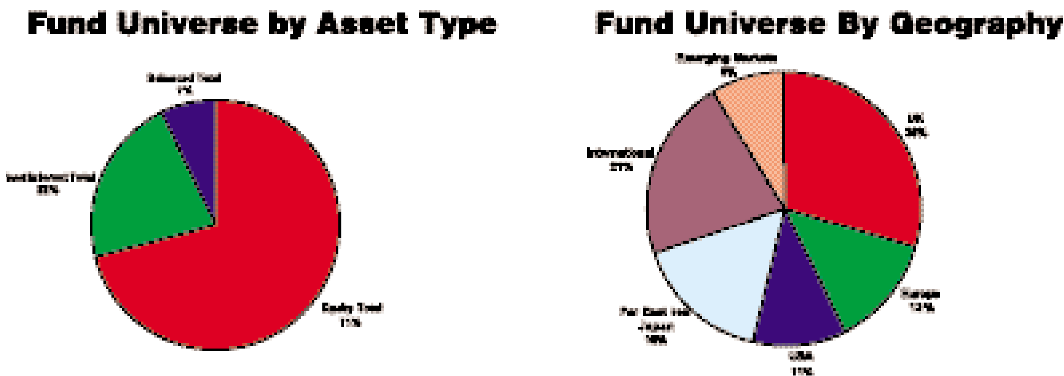
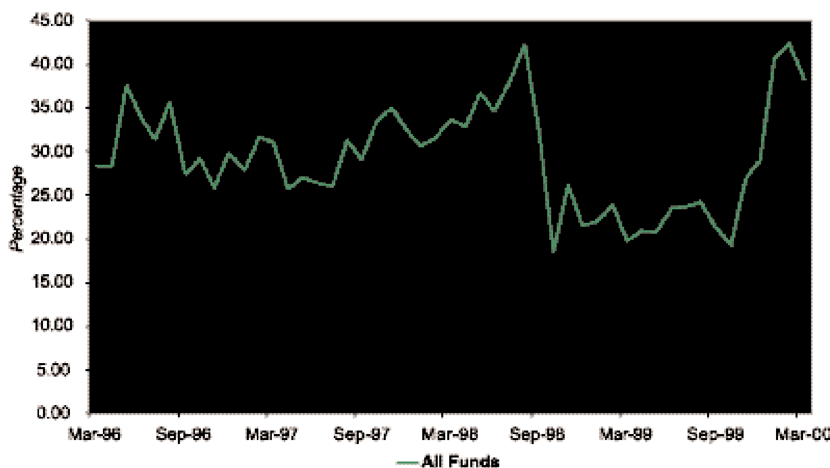


Figure 4



This result suggests several interesting things about the way in which funds in general are constructed and behave.

Firstly, on average around one third of fund managers have historically achieved returns in line with or better than their index benchmarks. The flip side of this result is that on average two thirds of all funds underperform their index benchmarks. Little wonder that many fund management companies tend to prefer using sector averages rather than indices against which to compare their fund performances. At least when using sectors the odds improve to 50:50!

Secondly, there must be a degree of "herd mentality" in the way in which fund managers make their stock selection bets. If this were not so then the significant swings in the percentage of fund managers performing in line with or above benchmark would not occur. For investors seeking to diversify risk by holding several funds in a single asset class the message is clear. It is only to easy to diversify returns to the median rather than diversify risk.

Thirdly, there seems to be a pattern over time that suggests the fund universe as a whole tends to perform less well in bear markets than in bull markets. The major dips in the chart above seem to coincide with periods of negative news for financial markets and liquidity constraints. This phenomenon cannot be ascribed to the fact that funds tend to be higher risk (more volatile) than their benchmarks as the performance figures have all been risk-adjusted. However, one explanation may be to do with the fact that funds tend to overweight growth and defensive stocks and underweight cyclical and value stocks. Perhaps investors need to include an element of style analysis in their fund analysis process if they are to achieve an effective diversification of risk.

Figure 5

Percentage of Funds Beating Their Benchmarks Over A Rolling 36 Month Period

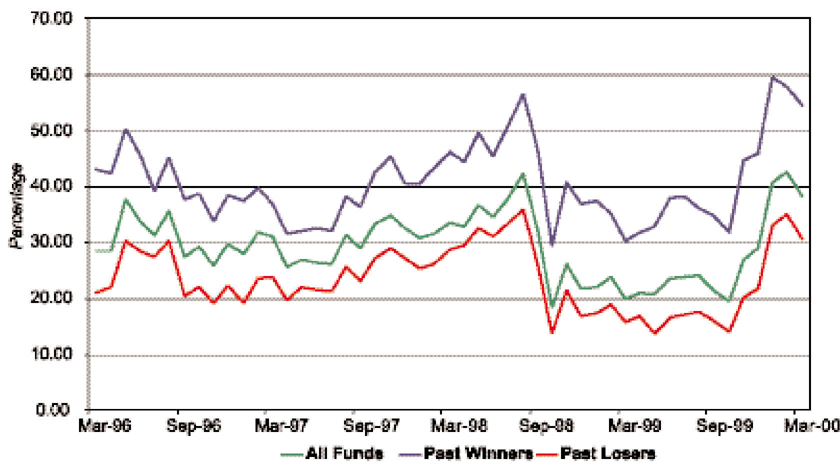
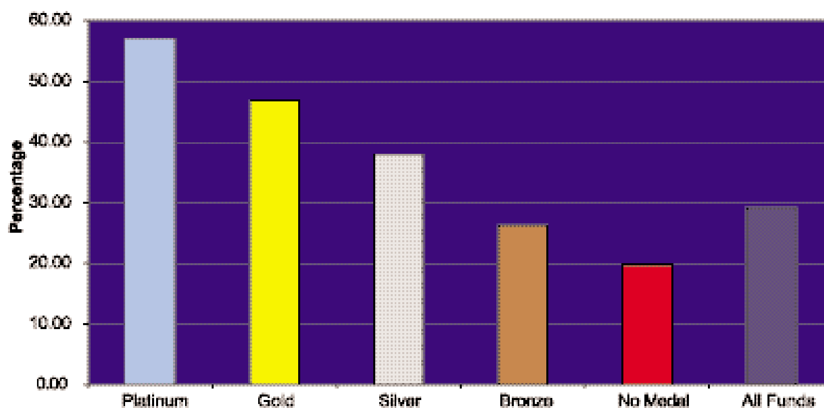


Figure 6

Percentage of Funds Beating Benchmark Based On ARC Medal Ranking



In conclusion, we have seen that fund performance standards are not constant over time. On average around one in three funds matches or beats their benchmarks over a three year holding period. But in tough market conditions (and now must surely qualify as tough) as few as 20% of funds might be expected to achieve out-performance of their benchmarks. For the investor looking to pick a winner today for excess returns tomorrow, the eligible universe may well be rather small! The article next month will look at this issue in more detail.

The above quote is taken from the Occasional Paper Series Number 9 published by the UK's Financial Services Authority (FSA) and entitled "Past Imperfect? The performance of UK equity managed funds."

Now we re-examine the question of whether or not past performance is any guide to future performance and challenges the claim that historic behaviour holds no useful information regarding the future. At this point a potential for bias in the following analysis should be declared. ARC is an investment consulting company with a proprietary fund ranking methodology, the ARC Medal. However, we believe that the arguments and evidence put forward stand up to independent scrutiny.

Everyone is familiar with the phrase "past performance" but what does it actually mean? To analyse past performance requires a more formal definition. Let us define "past" as meaning the last 36 months and "performance" as meaning the risk-adjusted return of a fund relative to its benchmark. This definition immediately excludes any fund that

does not have a 36 month track record and requires a suitable benchmark to be allocated for every fund under analysis.

We have identified some 2400 funds with a track record of ten years to 2000, rising to circa 5700 with a three year track record to 2000. For each of these funds ARC has allocated a "benchmark" index that reflects the description of the investment universe within which the fund is operating. The fund universe incorporates fixed income, balanced and equity funds investing in all geographic regions. The structure of the universe of circa 5700 funds is *figure 3*.

Having defined a universe of funds, the next step is to set out a test for performance persistence. If evidence for performance persistence is found, then maybe it can be concluded that the past performance pattern of a fund does contain information that is valuable to prospective investors.

The test proposed calculates the probability of picking a fund that out-performs its benchmark over the next 36 month period based on three different selection criteria: picking a fund at random; picking a fund that out-performed its benchmark over the last 36 months; and selecting a fund according to the ARC Medal ranking system.

Let us first look at the results for picking a fund at random. The chart below sets out the rolling percentage of funds with a positive risk-adjusted performance (RAP) over the previous three years. Results are plotted for the period March 1996 to March 2000 (Figure 4).

It can be seen that the percentage of funds beating their benchmarks has not been particularly stable over the period under review. Reasons for that were discussed in last month's article but the chart does graphically illustrate one of the central reasons why the value of past performance data is questioned - the average skill level of fund managers does not appear to be a constant.

Figure 5 adds two more lines to figure 4 – a blue line representing those funds that have beaten their benchmarks over the previous three years and a red line for those that have under-performed their benchmarks over the previous three years. The results are perhaps unexpected.

Figure 5 seems to present a strong argument that past performance does provide information about future performance. Those funds that out-performed their benchmarks over the previous three years, on average had a 15-20 percentage point higher success rate than those which had historically under-performed their benchmarks. (The blue line has been consistently above the red line). Remember that these results have been computed using literally thousands of funds and have been calculated using ten years of data. It is therefore extremely unlikely that the evidence presented above is due to sampling error. In aggregate, past performance is a useful filter for selecting funds.

So how can an investor take advantage of this finding in selecting funds? Remember that the filter is not based on returns in isolation but on the risk-adjusted return relative to benchmark. Thus the appropriate filter would be the RAP or M-squared. The problem for the average investor is that these numbers are difficult to calculate. So is there any easy way of finding out which funds have beaten their benchmarks historically?

There are several web-sites that provide performance information of this type. ARC is shortly launching a web-site called FundFact.com which will provide free one-page fact sheets on the circa 7,000 funds that are

Figure 7

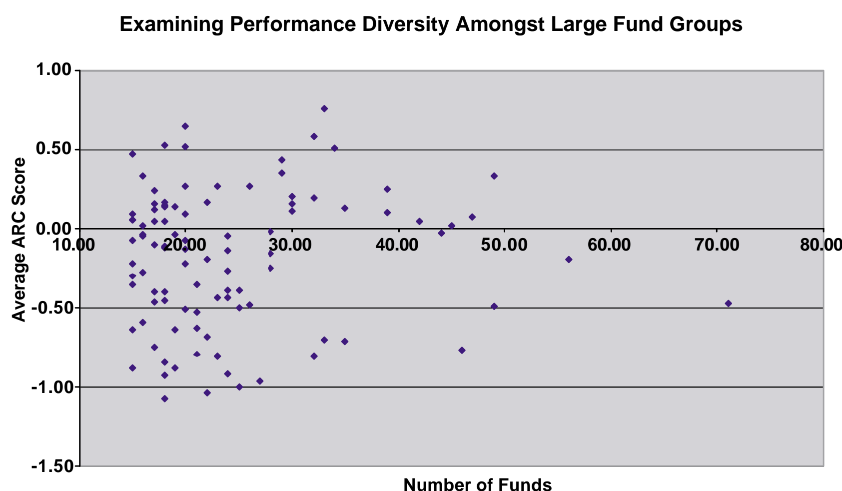
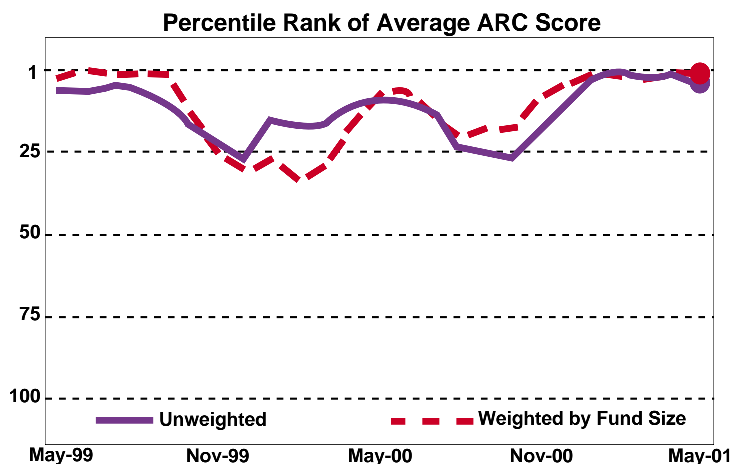


Figure 8



eligible for ARC Medals. Any fund that has a Silver, Gold or Platinum ARC Medal has beaten its benchmark over the last 36 month period.

But why go beyond a simple risk-adjusted return measure and use ARC Medals as the primary performance filter? We have explained in previous articles how the ARC Medal ranking system works and these articles can be accessed from our website www.assetrisk.com. However, results speak louder than words. The bar chart (figure 6) shows that by analysing the quality of the risk-adjusted return pattern over time, the probability of an investor picking a fund that will out-perform over the next three years increases significantly. As can be seen the highest percentage success has been recorded by Platinum ranked funds, the top ARC Medal. At the other end of the spectrum, those eligible funds that fail to gain an ARC Medal fared significantly worse than the universe as a whole.

In conclusion, the evidence set out above presents a strong case for investors to examine the quality of historic risk-adjusted returns before purchasing a fund. Performance should never be used as the sole criterion for fund selection. Expenses; fund manager tenure; corporate culture; fund size; fund growth rates; investment concentration; the list of qualitative variables to be considered is substantial. However, to claim that past performance is generally of no use to investors is to throw out the proverbial baby with the bath water. Past performance may not be a perfect guide to future performance but it does provide a useful and objective starting point for the appraisal of a fund.

Finally, we look for evidence for performance persistence by fund management houses rather than by individual funds.

Earlier we suggested that overall fund performance standards are not constant over time. On average around one in three funds matches or beats its benchmark on a risk-adjusted basis over a three year holding period. However, in difficult market conditions this figure has historically dropped as low as one in five. We also set out to refute the claim by the UK's Financial Services Authority (FSA) that information on past performance is not helpful to investors. Our analysis reveals that examining the quality of risk-adjusted returns can significantly improve the probability of selecting a fund that will beat its benchmark over the next three years or so. Now we ask the question of whether it is possible that some fund management groups produce consistently better results than their peers?

Why is this question of interest? Because the answer should challenge the way we go about structuring portfolios. For example, recently, growing importance has been placed on the performance track record of fund managers. The idea is that if a fund manager has out-performed with one employer, they can repeat their success with another employer. Who the fund manager is working for is not relevant. Such an argument is, of course, intuitively appealing - we like to think that it is people rather than organisations that matter. But is it true?

Similarly, given two funds that have historically performed roughly in line

Figure 9

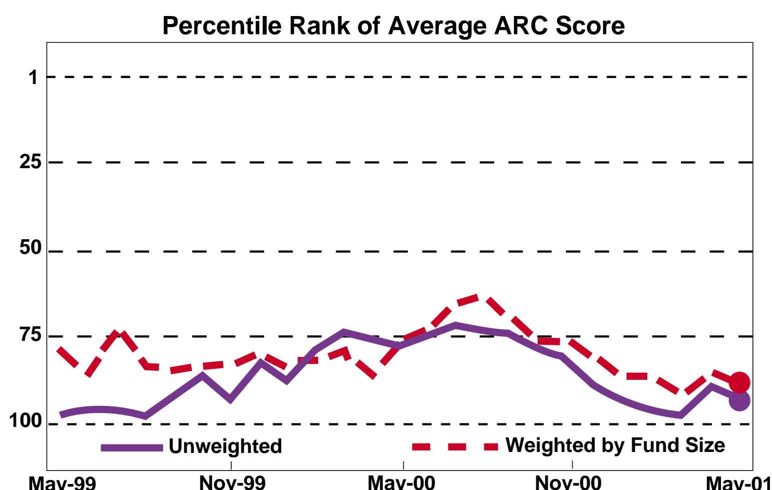
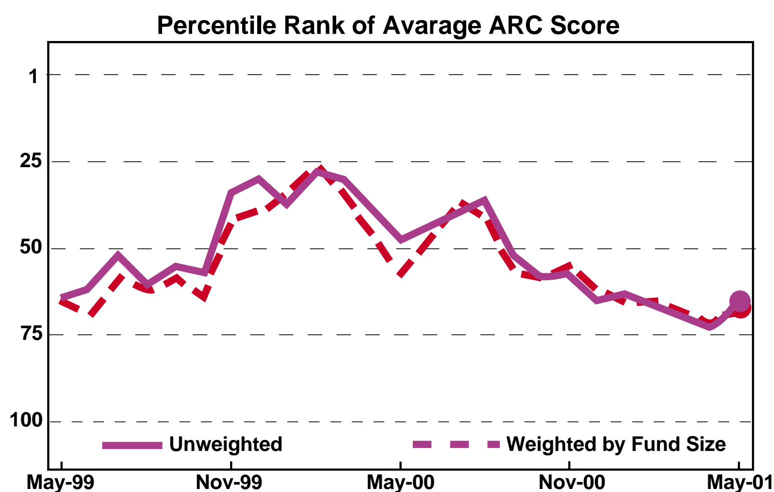


Figure 10



with each other, other things being equal, which one should be favoured? The fund within a group that has a strong overall performance record or the one which is the star fund in an otherwise pedestrian fund range?

Another example is the trend towards funds comprised of other funds. The thinking goes that no fund group has a monopoly on fund manager talent and the implicit assumption is that it is the fund manager who is generating the value not the organisation. Is it a better strategy to combine star fund managers or to invest with a stellar investment house?

This part has been divided into two sections. The first looks at the spread of group performance. The second examines the stability of group ranking over time. If we can demonstrate that groups can record consistent out-performance over their peers, perhaps the value of paying extra fees for a multi-manager approach is open to question.

Collective or Individual Skill?

As the plethora of advertisements each week in the Sunday papers tells us, virtually every fund group has proved that it is the best at running our money. With the chosen time period, in the selected asset class, the figures presented are always compelling. But is it sensible for investors to take the excellent performance of a specific fund as an indication of a group's general performance? Is it not the case that overall investment performance for asset management houses is very similar?

We have identified some 99 fund ranges with at least 15 funds in each umbrella. To measure performance we have used our proprietary ranking system, the ARC Score. The ARC Score is a measure of the quality of risk-adjusted returns relative to benchmark and more details can be found on our www.assetrisk.com. To assess group performance, the average ARC Score was computed across each group's fund range as a simple average. The time period taken was the three years ended May 2001 and only those funds that had been in existence for the entire period were considered.

The following observations can be made from figure 7:

- The average ARC Score for each fund group is roughly in the range of plus one to minus one. A positive Score indicates that a group has, in aggregate, beaten the markets.
- Perhaps surprisingly for those who believe that most fund managers underperform their benchmarks, around half of all fund managers recorded a positive average ARC Score.
- The number of funds in a range does not appear to materially affect the ability of the group to produce positive overall results. In the words of Yoda, Jedi Master "Size matters not".

So what conclusions can be drawn? There is a surprising diversity in group performance over the three year period ended May 2001. However, the evidence is as yet unconvincing that investment management skill resides within groups rather than people. The sceptic would say that it is to be expected that half the groups will out-perform and half under-perform. The problem is that the groups in each half are just not stable. So let us examine whether there is any evidence for stability in the ranking of groups over time.

Searching For Stability

The charts set out below present the percentile ranking of selected groups over the last two years based on average ARC Scores. Both a simple average and an average weighted by fund size have been taken. The evidence for persistence in both out-performance and under-performance is compelling. (For more information please look at www.fundfact.com)

Figure 7 takes a typical group that is within the top quartile as at May 2001. Over the last two years this group's ranking has fluctuated but has remained in the top quartile for the majority of the period. Weighting performance by fund size has little impact on the ranking.

By contrast, figure 8 presents the typical picture for groups in the bottom quartile as at May 2001. Groups in the bottom quartile have tended to stay there and again adjusting performance by fund size has little discernible impact on the results.

Figure 9 shows how groups in the middle of the pack tend to cycle within the second and third quartiles.

So what conclusions can we draw from the figure 10?

It appears that there is a degree of persistence in group performance, much the same as there is in fund performance.

The persistence lasts long enough to make it a sensible strategy to select a group that has proved itself historically rather than selecting a group at random.

Larger groups do not appear to generally outperform or underperform their smaller, and allegedly more nimble, counterparts.

And so, as we come to the end of this article on selecting winners, what strategy might we now propose for investors seeking to pick the winners of tomorrow? Firstly, the performance of a fund needs to be placed in the context of its peer group. Secondly, past performance is a useful filtering mechanism in fund selection since there is strong evidence for both "hot hands" and "cold hands". Finally, groups that have historically performed well across their fund ranges tend to continue to do so.

Article by Graham Harrison, Managing Director, Asset Risk Consultants Limited (ARC). For information on the investment consulting services offered by ARC please call on 44 1481 731311 or visit www.assetrisk.com

Graham Harrison