

Consistency of Manager Performance

This note summarises a presentation that I recently made to The Institute of Quantitative Research in Finance (Q Group) in Sydney, titled ‘Assessing the Consistency of Manager Performance’.

The research, based on data published by Vanguard Australia this year¹, analyses the performance of actively managed funds available to Australian investors.

The analysis of 728 actively managed funds showed that **the performance of active managers’ had been consistent** across the two 5-year periods to December 2011 and 2016. Statistically, **there was a less than 2 percent chance that the funds had not performed consistently**.

This finding, which aligns with previous analysis conducted by the Peterson Research Institute, is crucially **important to the way that Australian superannuation funds construct their investment portfolios, and hence the returns earned by members**.

In short, **if investment managers perform consistently then super funds are able to select managers who will add value in the future**.

These results indicate that Australian superannuation funds DO NOT invest their clients’ funds ‘randomly’, or with the ‘average’ manager.

Furthermore, while reports that the average manager does or does not outperform an ‘index’ may make good headlines, in reality it is irrelevant, as if manager performance is consistent, then **super funds do not invest with the average manager**.

As part of the research presented, it was also demonstrated that all previously reported analyses of the consistency of manager performance did not actually assess the consistency. In fact past analysis has only assessed whether investment markets were static – which we all know, and which the previous analysis found, is not the case.

This previous analysis includes numerous academic papers and the widely publicised assessments carried out by Vanguard (in ‘The case for low-cost index-fund investing’ publications) and S&P Dow Jones (in their ‘Persistence Scorecards’).

The significant statistical results obtained in his research, strongly endorse the role of active investment management in Australian superannuation funds, and **reaffirm that trustees are acting in their members’ best interest by pursuing an active investment approach**.

About the Author

John Peterson is the founder of Peterson Research Institute Pty Ltd, and has over 35 years of experience in the financial services and investment industry. John was a founding member of the Q Group.

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The views and opinions expressed are those of the author. This is provided for general information only and does not constitute financial or any other advice.

1. <https://static.vgcontent.info/crp/intl/auw/docs/literature/The-Case-for-Indexing-Australia.pdf?20171013|143516>

Technical Notes

The assessment of the consistency of manager performance is based on comparing performance – in particular performance relative to other funds - in one period, to that in a subsequent period. In the Vanguard case that was assessed, 5 year performance to December 2011 is compared to the subsequent 5 years to December 2016.

This data can be presented in a ‘contingency table’ which plots the quartile ranking of the performance of managers / funds in the two periods against each other.

For example, in the table in Figure 1, which only considers the first period, we see that twenty-five percent of funds would be allocated to each quartile.

Figure 1

Period 1	
Quartile 1	25%
Quartile 2	25%
Quartile 3	25%
Quartile 4	25%

Figure 2

	Period 2			
	Q1	Q2	Q3	Q4
Period 1				
Quartile 1	6.25%	6.25%	6.25%	6.25%
Quartile 2	6.25%	6.25%	6.25%	6.25%
Quartile 3	6.25%	6.25%	6.25%	6.25%
Quartile 4	6.25%	6.25%	6.25%	6.25%

In the contingency table (Figure 2) we see what would happen if investment markets were actually ‘random’ with no manager being able to perform consistently.

The 25% of funds in each quartile in Period 1, would have a random quartile ranking in Period 2. As a result the funds’ would be randomly distributed across the table, with each cell in the contingency table having $1/16^{\text{th}}$ (6.25%) of the total.

At the other extreme, if the world is **Static** (i.e. markets are in long-run equilibrium or are regularly repeating), then a fund that is in quartile one in the Period 1 **must repeat that relative performance in Period 2**, as the market and manager behaviour that results in first quartile performance is repeated in both periods. (Note that in a Static world there is no learning, so past behaviour is repeated.)

If we assume, for simplicity purposes, that there are 160 funds being analysed (10 per cell if allocated randomly), then the funds in Static markets must be found only on the diagonal of the contingency table, as in Figure 3. The ‘Pattern of Performance’ in the contingency table represents cells where the number of funds is greater than the expected number (6.25%, or 10 funds) in green, and less than the expected number in pink.

Figure 3: Pattern of Performance in Static Markets

		Period 2			
		Q1	Q2	Q3	Q4
Period 1	Quartile 1	40	0	0	0
	Quartile 2	0	40	0	0
	Quartile 3	0	0	40	0
	Quartile 4	0	0	0	40

Most previous analysis conducted assumes that investment markets are either Random or Static as these are the assumptions on which Modern Portfolio Theory is based.

These previous studies have typically sought to test whether top quartile performance in the first period (Period 1) is repeated in Period 2. (Implicitly they are also assessing whether second, third, and fourth quartile performance is repeated.)

Thus they are testing whether actual manager returns are the same as the pattern of performance in Figure 3, and when finding that they are not, conclude that manager performance is not consistent. **What these studies are actually testing is whether markets are static, with their results showing is that real markets are not Static.** (Hopefully not a major surprise!) **However, these results say nothing about the consistency of manager performance.**

Of course the real world and real investment markets are neither random nor static. **The real economy and markets may best be described as Complex.**

If managers are performing consistently in Complex Markets, the pattern of performance will be different to that found in Random Markets (Figure 2) or Static Markets (Figure 3).

In Complex Markets, Inconsistent managers will be more likely to be found in the first and fourth quartiles in any period (i.e. the four corners of the contingency table), while consistent managers are more likely to be found in the second and third quartiles (i.e. towards the centre of the contingency table).

Figure 4

		Period 2			
		Q1	Q2	Q3	Q4
Period 1	Quartile 1	Green	Red	Red	Green
	Quartile 2	Red	Green	Green	Red
	Quartile 3	Red	Green	Green	Red
	Quartile 4	Green	Red	Red	Green

Thus the Pattern of Performance that will be found **when managers are performing consistently in Complex Markets is that shown in Figure 4.**

The actual Pattern of Performance found in a study of manager returns can be compared to this expected pattern. Furthermore, the likelihood (probability) that the actual pattern found is the same as the expected pattern – and thus whether managers are actually performing consistently – can be calculated.

When the Vanguard study was assessed in this way, it was found that there was a 98.46% probability that active managers in Australian were actually performing consistently.