In Pursuit of Alpha:
The outperformance characteristics of actively-managed equity funds

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1. Introduction

While investing over time is a positive sum game – real wealth is created by exposing capital to the efficient allocation mechanisms of the market – and thus anyone, whether skilled or not, can share therein, the actual performance achieved by an investor is determined by the strategy that he or she elects to follow. In our modern capitalist world one strategy that dominates the investment world is professional active investment management, perhaps because it appeals to the emotions and expectations of most investors. Alas, it promises better performances or capital preservation than the market mechanism in its purest form – even though the strategy's general performances to capture the magic workings of capitalism over time is in some doubt.

William Sharpe developed the theory, "the arithmetic of active management," whereby he argued that active investment management when properly measured against the market average (benchmark) is a zero sum game; i.e. one group of investors can only outperform the market if another group of investors underperforms the same benchmark. But when considering the cost of investing (transactional, operational and managerial) it follows that the majority of active fund managers should underperform the benchmark. Thus, after costs, active investment on average is a negative sum game.

This theory, however sensible, does not detract most investors to follow or prefer the active management route, simply because over any given period there are actively-managed funds boasting with market-beating returns plus the promises of further excellent returns and capital preservation during bear market or crisis periods.

The purpose of this study, however, is not to discredit the active investment strategy. In fact, given the evidence of market outperformance by some actively-managed funds it would be irrational to do so. Rather, the study aims to identify those sets of circumstances relevant for the South African investor that will most likely lead to the outperformance of the market benchmark. Hereby the reader should gain some valuable insight when and how active investment should be used to enhance market returns.

2. Methodology and Objectives

The performance data of all actively-managed equity funds (general equity, growth and value categories) since 1999 were collected from the Association of Collective Investments (ACI) database. In addition, the multi-period performance statistics of actively-managed equity funds, as published by Morningstar (quarter ended 30 September 2009), were used in the analysis. The latter database only records the statistics of current funds registered, while the former has the performance statistics of all funds in existence each year, i.e. including funds that may not exist today.

The rationale behind the active management of investment funds is to outperform the market benchmark. To this effect the performance of actively-managed equity funds is measured against the market index, the FTSE/JSE All Share (ALSI). An alternative benchmark would be the Shareholder Weighted Index (SWIX), launched in 2002. Dual-listed shares, typically the large market capitalisation shares which are both listed abroad and on the local stock exchange, are down-weighted in the overall index relatively to their free float of shares available to local investors. Whereas the ALSI is typically "resources heavy" the SWIX index would exhibit a more equally-weighted allocation to the three main sectors of the bourse, namely resources, industrials and financials.

The objectives of the study are:

- To identify the percentage of actively-managed equity funds that outperformed the market performance benchmark each year during the past decade (1999-2009).
- To identify performance trends when actively-managed equity funds are most likely to outperform the market benchmark.
- To evaluate the performances of actively-managed equity funds over longer term investment periods (5-, 7- and 10-year periods) and comparing it with the benchmark performances, but taking into account the effect of survivorship bias on average performances.
- To identify the investment style and funds that have been the most successful in beating the market benchmark over the past ten years.

3. Findings from the analysis

3.1 *The variability of outperformance*

The year-on-year performance statistics of actively-managed equity funds for the period September 1999 to September 2009 in the general equity, growth and value categories are shown in Table 1 and depicted in Chart 1.

The average fund performance was 50% of the time (five out of ten years) above the ALSI benchmark, but less successful against the SWIX (two out seven years). Notably, the average outperformance record of actively-managed equity funds (the percentage of funds that outperformed the benchmark) varies considerably from year to year, i.e. no consistency in the outperformance of the ALSI benchmark was identified. For example, for the 12-month period ended September 2003 basically all the funds (97%) outperformed the ALSI, while for the 12-month period ended September 2006 no fund was able to outperform the ALSI!

Table 1: The annual performances of actively-managed equity funds against the market index benchmarks

Starting period: September	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**	**1999**
Ending period: September	**2009**	**2008**	**2007**	**2006**	**2005**	**2004**	**2003**	**2002**	**2001**	**2000**
Number of funds	96	87	71	63	58	54	69	64	60	57
Average fund performance	8.2%	-17.1%	36.5%	28.6%	49.4%	39.3%	7.4%	14.7%	-1.4%	18.0%
Median rate of return	8.6%	-17.0%	35.3%	28.7%	49.0%	38.3%	5.9%	14.1%	-2.2%	19.0%
Benchmark: ALSI	7.7%	-18.0%	37.4%	36.1%	47.8%	35.9%	-2.2%	20.7%	1.0%	23.6%
Percentage funds outperform	*52%*	*67%*	*37%*	*0%*	*55%*	*76%*	*97%*	*22%*	*33%*	*33%*
Benchmark: SWIX	9.1%	-14.7%	36.8%	31.2%	51.4%	39.0%	2.2%			
Percentage funds outperform	*49%*	*24%*	*39%*	*30%*	*28%*	*44%*	*78%*			

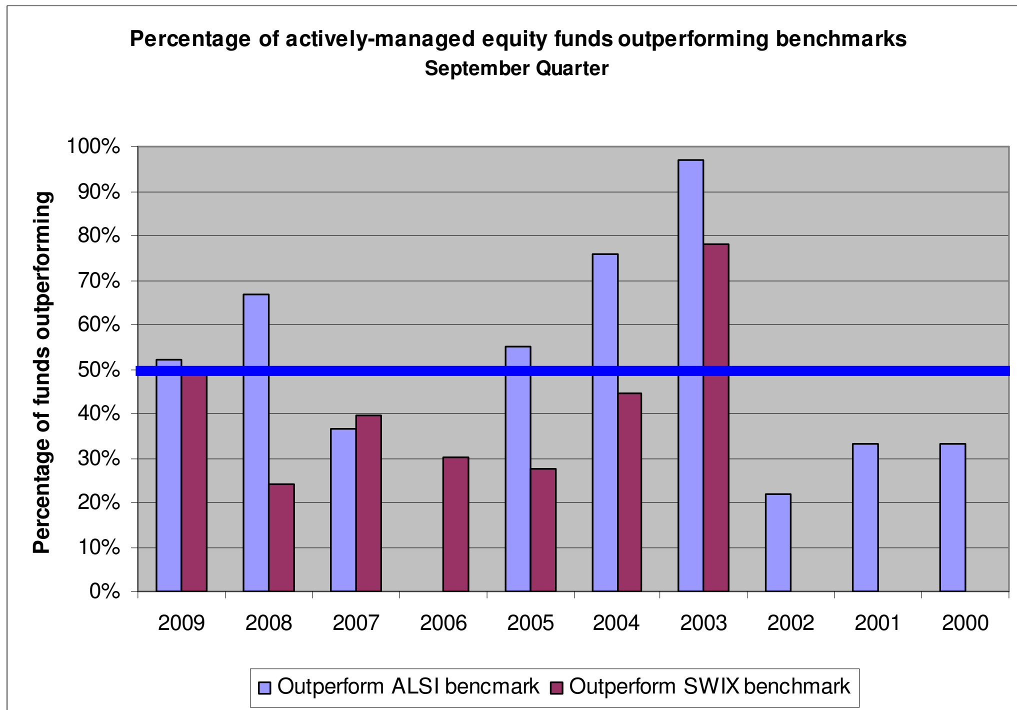

Chart 1: The annual performance records of actively-managed equity funds (1999-2009)

3.2 *Actively-managed equity funds excel during bear markets*

Why do most actively-managed equity funds in certain years outperform the market benchmarks, but in other years only a few equity funds would beat the benchmark?

Let us review the performance of the ALSI over the past decade: Chart 2 displays the market performances each year (12-month period ending September). It is found that the market exhibited strong performances in the majority of years – 2000, 2002, and 2004-2007 (the "bull market" years) while it returned mediocre or negative performances during 2001, 2003, and 2008-2009 ("bear market").

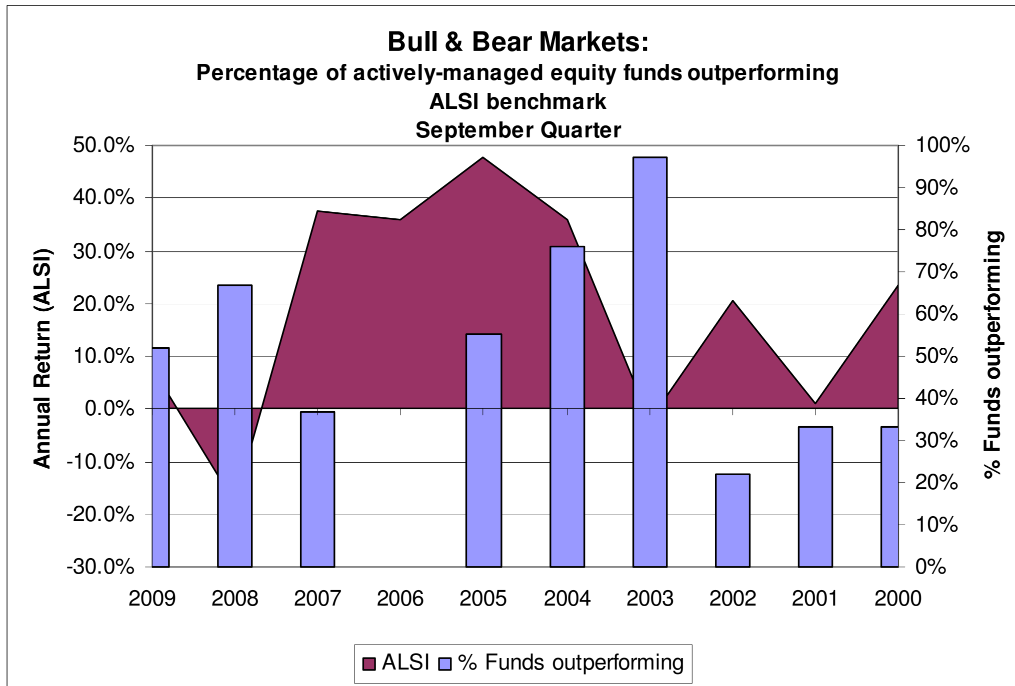

Chart 2: ALSI performance and outperformance of actively-managed equity funds

From Chart 2 it is evident that the percentage of funds outperforming the market typically was the highest during “bear market” periods. Conversely, the lowest percentages were found during strong “bull market” periods.

Intuitively the above makes sense, since actively-managed equity funds have the discretion to increase their cash positions – in any event equity funds are obliged to hold a minimum cash position, whereas the equity benchmark holds only equity constituents – or to change their equity holdings to defensive stock plays, like companies with relatively resilient cash flow and dividend payouts.

3.3 *The relative performance of the resources sector determines to a large extent whether or not equity funds will outperform the index*

The ALSI benchmark is heavily dominated by the resources sector (40-50%). More specifically two counters, Anglo American and BHP Billiton, constitute more than 25% of the index on their own. This kind of concentration is not found typically in actively-managed equity funds. Invariably, equity fund managers deliberately underweight the resources play, not only because of their relatively dominant position, but also because resources are considered a risky (volatile) investment proposition relative to other, perhaps more predictable (less volatile) sectors of the economy.

Hence it is no surprise that whenever the resources sector will do very well relative to the other two main sectors, industrial and financial shares, the performances of actively-managed equity funds tend to lag the market by a considerable margin.

For example, Chart 3 depicts the 12-month performances of the three main sectors each year since 1999. The resources sector outperformed the other two sectors in 2001, 2002, 2006 and again 2007. Chart 4 confirms the notion that the vast majority of equity funds did not outperform the mark during those years. Likewise, whenever the resources sector performed poorly relative to the other two sectors, most equity funds outperformed the market.

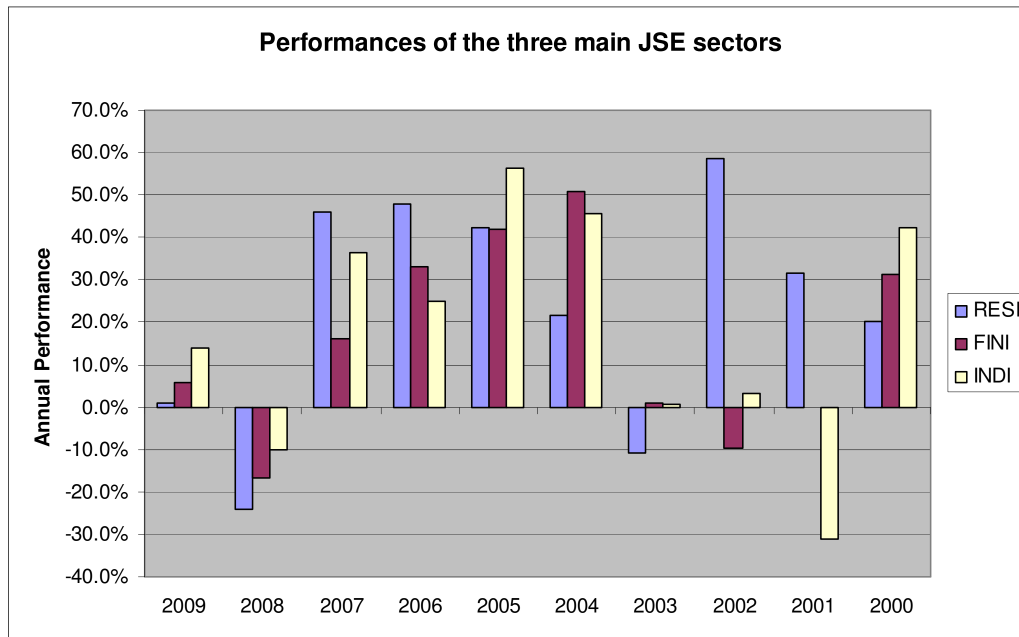

Chart 3: The annual performances of the three main sectors of the JSE (1999-2009)

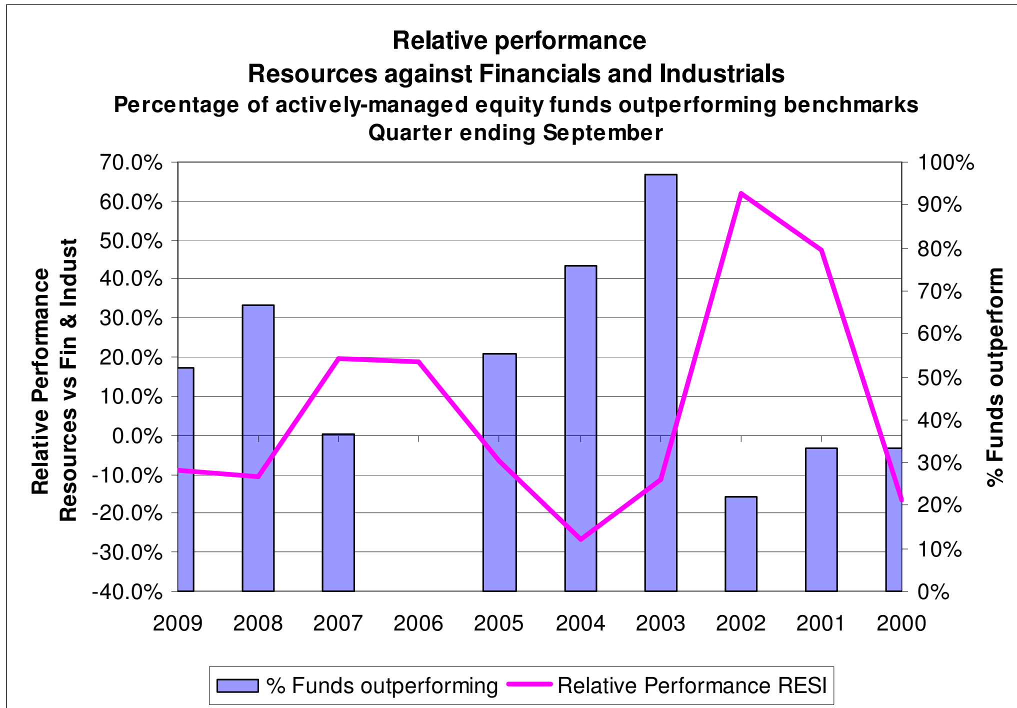

Chart 4: Outperformance of actively-managed equity funds and the relative performance of the resources sector (1999-2009)

3.4 *A wide dispersion of equity fund returns is possible, even in the long run*

Equity investing should be a long-term investment commitment. Short-term performance statistics are deceiving and some variability in fund performances are expected. Over the longer term, however, some mean reversion and less variability are expected among equity fund performances. Therefore, investment performance should really be measured over holding periods of at least, say, five years to assess the outperformance of actively-managed equity funds.

Table 2 and Chart 5 illustrate nonetheless a wide dispersion of equity fund returns over periods of 5-, 7-, and 10-years. Notably, a very significant return difference is found between the best and worst performing funds or the top and bottom quartile performing funds. The top performing funds comprehensively outperformed the market index over all periods, but conversely the worst performing funds significantly underperformed the market index. For example, an investment of R100 in the best performing fund over the past ten years would have grown to R1,135 versus R290 in the worst performing fund and a market index equivalent of R510.

These are huge differences indeed, which are especially relevant over longer compounding periods. The right choice of the investment manager is absolutely vital when following the active management strategy as opposed to a passive (index) strategy.

Table 2: The annualised performance of actively-managed equity funds over multiple holding periods

Actively-managed equity funds	**5-year**	**7-year**	**10-year**
Number of funds	55	49	34
Average fund performance	18.7%	20.1%	17.8%
Median fund performance	18.2%	20.2%	17.5%
Best fund performance	24.7%	26.8%	27.5%
Top quartile fund performance	20.4%	22.2%	20.2%
Bottom quartile fund performance	17.2%	17.9%	15.1%
Worst fund performance	13.1%	13.9%	11.2%
ALSI benchmark	19.5%	18.3%	17.7%
Percentage of funds outperforming ALSI	*34%*	*69%*	*50%*
SWIX benchmark	20.2%	18.9%	
Percentage of funds outperforming SWIX benchmark	*27%*	*63%*	

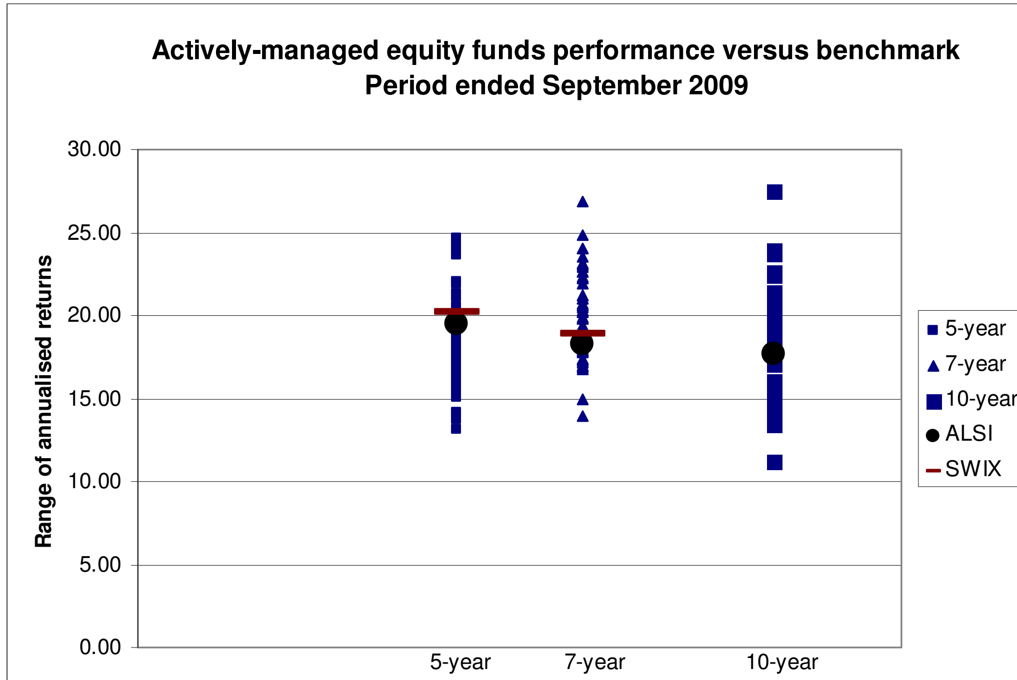

Chart 5: The range of annualised fund returns over different holding periods

3.5 *Survivorship bias creates a blind spot*

From Table 2 it seems that *on average* actively-managed equity funds matched or bettered the ALSI benchmark over the past 7-year and 10-year holding periods. It only fell short over the past 5-year period. Whereas in the latter period only about one-third of the funds outperformed the benchmark, nearly 70% of the funds did that over the past seven years and 50% in the past decade.

There is one caveat, however, in that the data exhibited in Table 2 only display the performance records of funds that exist *today*; not of those funds that ceased to exist or were merged into other funds during the past decade. Typically, funds that were closed in such instances were underperformers to their peers. Nonetheless, these funds had real investors with real monies invested and as such were part of the overall investment experience. The omission of such performance data will invariably lead to *survivorship bias* – in effect creating an illusion of better industry performance than it really was.

Table 3 compares the annualised average equity fund performance (from Table 1) with the current performance statistics as displayed in Table 2. It shows that especially over the 10-year holding period the actual average equity fund performance was at least one percentage point lower than indicated by Table 2.

Table 3: Annualised returns of equity funds considering survivorship bias

Comparisons	5-year period	7-year period	10-year period
Average fund performance (current & historical funds)	18.7%	19.7%	16.7%
Average fund performance (current funds only)	18.7%	20.1%	17.8%
Median fund performance (current & historical funds)	18.5%	19.2%	16.4%
Median fund performance (current funds only)	18.2%	20.2%	17.5%

3.6 *Actively-managed equity funds on average generally do not outperform the market index over the long term*

A further conclusion from the analysis is that *on average* actively-managed equity funds do not outperform the market benchmarks over longer term holding periods. An exception is found over the past 7-year period where actively-managed equity funds on average outperformed the ALSI index, but not the SWIX index (Table 4). The weaker performance of ALSI over this period can be largely attributed to the relative poor performance of the resources sector in 2002/3, which was also the start of the 7-year investment period. Incidentally, in any performance measurement the starting point is of utmost importance in the reported outcome.

Table 4: Annualised average equity fund returns (no survivorship bias)

Actively-managed equity funds	5-year	7-year	10-year
Average fund performance	**18.7%**	**19.7%**	**16.7%**
Median fund performance	**18.5%**	**19.2%**	**16.4%**
ALSI benchmark	**19.5%**	**18.3%**	**17.2%**
SWIX benchmark	**20.4%**	**20.0%**	

3.7 *Value investing is King!*

When evaluating the performance statistics of the three major equity categories used in the collective investments fund classification system, namely *general equity*, *growth* and *value*, it is apparent that value funds achieved significant superior performance over all longer term periods against the other two categories and the market benchmark.

Chart 6 depicts the average category performances over the past 5-, 7- and 10-year periods. Not surprisingly, value funds or funds/managers known for their value-biased investment approach dominate the long-term performance charts as shown in Chart 7.

Undoubtedly, investment value is to be found in following this style of investing. While markets may most of the time exhibit near-efficiencies, there are certainly irrational valuation periods – either exuberance or despondency about the prospects of certain market sectors which normally proves to be unfounded afterwards.

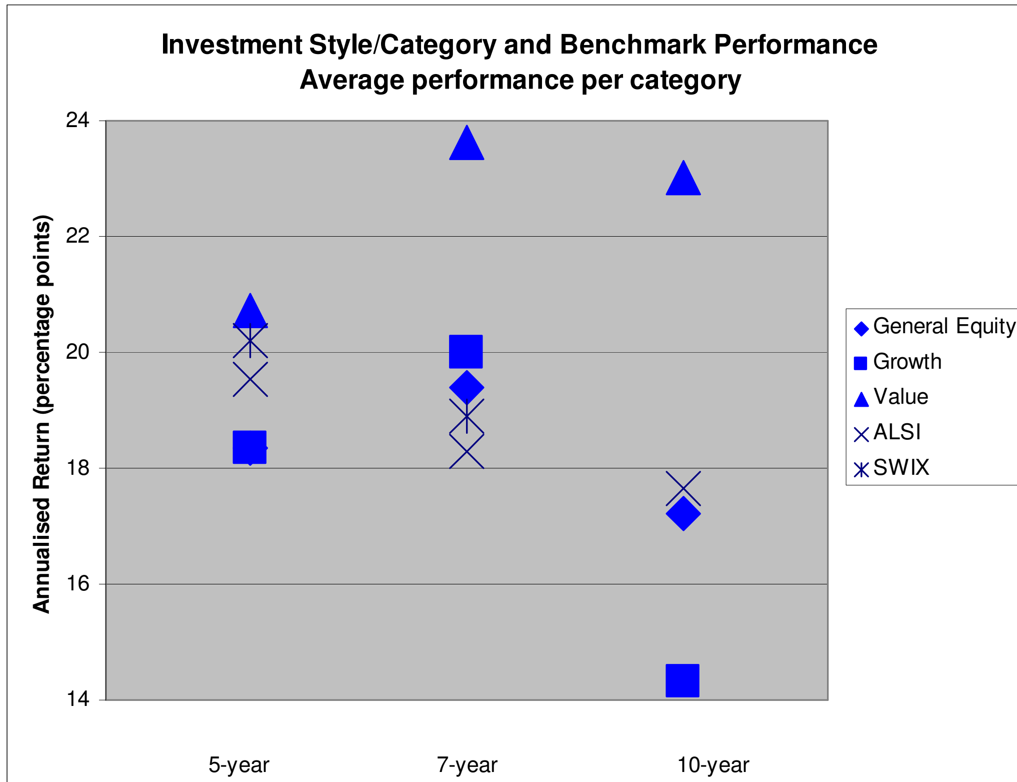

Chart 6: Annualised performance per equity fund category

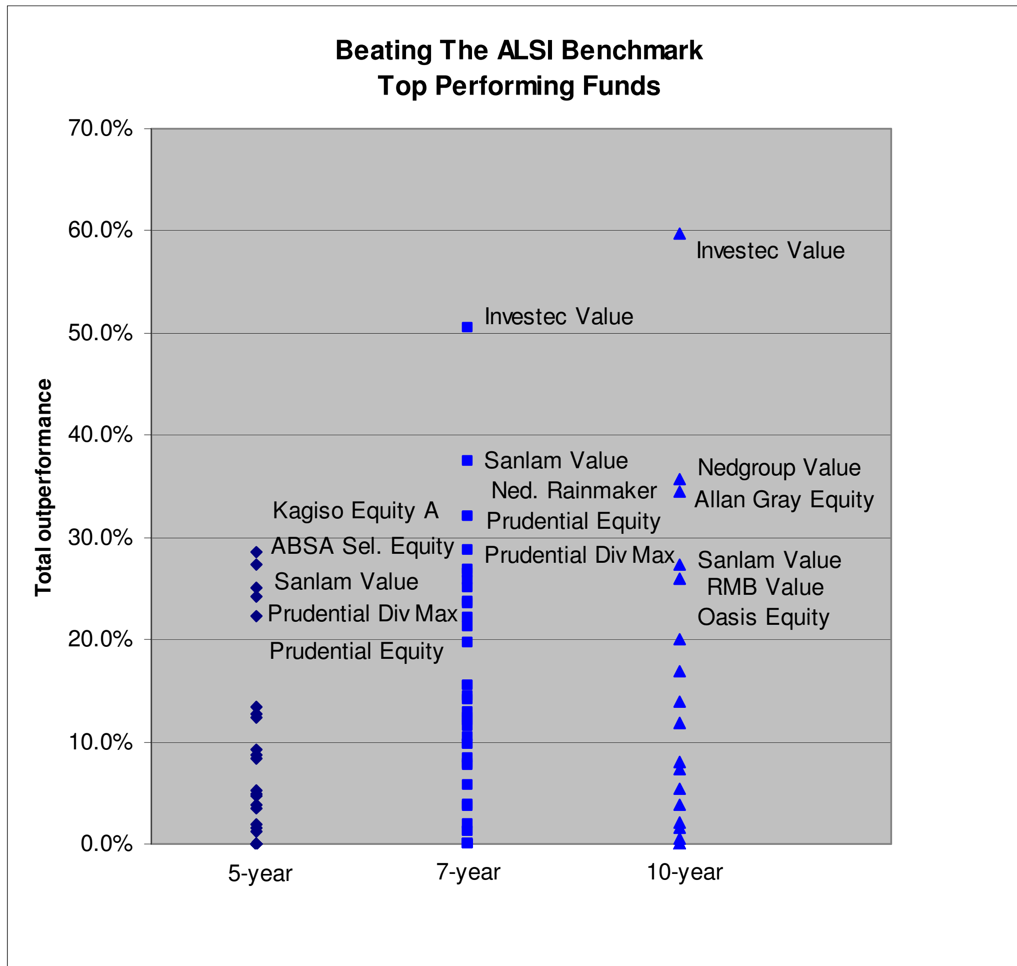

Chart 7: The top-performing equity funds over the past decade

4. Summary

An analysis of the performance statistics of actively-managed equity funds revealed that the stated objective of active investing – outperformance of the market benchmark – is not an easy feat at all. Neither is it a logical or necessary result following from applying comprehensive research, sophisticated analytical and trading processes or appointing highly-trained personnel. If it was so, we should have had a higher and more consistent outperformance record from actively-managed funds than was observed during the past decade.

More likely it seems that the outperformance of actively-managed equity funds depended on the direction of the resources sector relative to the financial and/or the industrial stocks and whether the market was in a strong bull market rally or bear market decline. The highest percentage of equity funds outperforming the benchmark over a 12-month period was typically found whenever the market was in the “grips of a bear” or resources sector did poorly relative to financial and/or industrial stocks.

Given the aforementioned, questions should be raised about the appropriateness of using the ALSI – a heavily concentrated index and largely tilted towards resources stocks – as a performance benchmark. Ultimately it proves or reveals little about the skill and capabilities of the fund manager. The SWIX benchmark – at least a less concentrated benchmark than the ALSI – is arguably more representative of the investment universe. The SWIX, nonetheless, proved to be a tougher hurdle to pass over the past seven years.

Active management, at least in theory, should appeal to most investors. First, there are the promises of superior returns; second, there are the management processes and skilled personnel in place and third, there is hopefully some evidence of past performances. Yet, this study showed that the selection of the right manager/fund is absolutely vital. If an investor was unfortunately invested with the performance laggards he or she could have been considerably worse off than the top performers or even the market index over the long term – something like ending up with *too little* or having *plenty*. Unfortunately, there is no foolproof methodology to know *a priori* which fund will be among the winners ten years (or more) from now – indeed, there is no free lunch in this business. An analogy, perhaps a bit unfair, but to illustrate the point: The Lotto is very promising with a potentially very high payoff at stake, but for 99% of all players it will remain a lousy proposition.

Actively-managed equity funds, also when considering the impact of survivorship bias on current performance data, on average do not outperform the market benchmarks (ALSI and SWIX). In reality this finding is little surprising, given that active management *per se* is a zero sum game, and after accounting for costs a negative sum game. That, however, does not negate the value of active investing. For example, during the past ten years value-styled equity funds did exceptionally well, both against the market benchmarks and other equity categories. Certainly, the value style makes sense, especially to benefit from gross inefficiencies (irrationalities) that occur from time to time in the market place. Overall, it may be a prudent idea to complement a momentum or index strategy with a contrarian strategy like value investing.

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