Super Dogs

The Value of Active Value

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cannon asset managers

"If you really want to "beat the market," most professionals can't help you …"

(Joel Greenblatt, ***The Little Book That Beats the Market***, xviii)

"… the play's the thing Wherein I'll catch the conscience of the king"

(William Shakespeare, ***Hamlet***, Act II, Scene II)

Considering the argument in more detail, two years ago, Cannon Asset Managers published the results of our then decade-long study into the merits of investing in the most neglected stocks on the JSE Limited (JSE). The study, which dates back to the beginning of 1996, demonstrates the merit of active portfolio management. However, our findings caution that not all portfolios are born equal – the chances of beating the market are best where the active investment manager constructs portfolios that are made up of stocks that suffer from price depression, trade at a discount to the market and, ideally, are neglected. More to the point, the results of our study demonstrate that investing in portfolios of so-called value stocks has delivered results that are materially and consistently ahead of the market over many years; in other words the outcome is not spurious or random.

This result is significant in that, historically, equities constitute the top performing asset class, globally. However, the available evidence shows that most investors are unable to achieve similar returns. To the contrary, there is a wide body of evidence that shows that over most reasonable investment periods (years, not months) about three-quarters of professional fund managers consistently are beaten by the market. This is an unfortunate and expensive result for investors because it means that investors are able to only partially harness the powerful force of compound equity returns.

In contrast to this wholly unsatisfactory outcome for investors, and returning to the earlier point, the results of our decade-long study into domestic equities demonstrate that a value approach to investing provides investors with the ability to generate results that are consistently ahead of the market and, in the aggregate, by a wide margin. This result has material implications for the long-run wealth of all investors. Surprisingly, and as we show below, the approach is simple to follow, but requires dedication and discipline in application.

This report updates the findings of our study which we published in 2005 (***Going to the Dogs? A Case for Active Contrarian Investing***, March 2005) and 2006 (***Super Dogs: More Evidence Supporting the Case for Active Contrarian Investing***, January 2006).[1] The update is achieved by incorporating the results achieved over the course of 2006.

Readers who are familiar with the background to our study can go straight to Section 8 of this report, which updates the portfolio results and shows the portfolios for 2007. The results from the past year show that the value portfolio which invests in the most depressed equities (and so trades under the banner “dog portfolio”), gave a total return of 31.3 percent last year. In contrast to most other years in our survey, the return was almost identical to the 31.1 percent delivered by the portfolio of most highly rated stocks which we label growth or diamond stocks.

[1] These reports are available for downloading at www.cannonassets.co.za/research.asp.

Interestingly, the benchmark index returned 37.3 percent during 2006, which provides support for passive – or index – investing. However, the case for value investing is not built on an argument suggesting that value portfolios will outperform the market (and growth portfolios) year in and year out. Rather, the case for value investing rests on the argument that, on average, value portfolios will generate results that are ahead of the market over time, which may be a period as short as a few months, but is typically measured in years.

The validity of this last point is clearly established by the fact that, despite the indifferent performance of the dog portfolio over the past twelve months, the dog portfolio has delivered a cumulative return of 871.4 percent since 1996 which is more than four-and-a-half times greater than the cumulative return generated by the diamond portfolio and three times bigger than the return offered by a passive investment in an index portfolio. Beyond this, the findings of our study offer other useful insights into the risk-return relationship. These conclusions are presented in greater detail in Section 8.

Those who have not seen this research before, or who would like to revisit the arguments that explore the merits of active and passive investment management may find the material set out in Sections 2-7 useful. The material in these sections also deals with the merits of different active management philosophies, which we divide into two groups, namely “growth” managers and “value” managers. A substantial part of this paper is dedicated to exploring the merits of these different approaches to active management. The results of this investigation are compelling: using a value approach to active investing is a sound long-term investment strategy that is shown to be vastly superior to alternative philosophical stances that embrace passive investing or active investing in growth stocks.

2. A Night at the Dogs

An experience that I had some 15 years ago provides a useful backdrop to the case for active value investing. In 1992, a short time before I began managing investments, I was on holiday in England. During that holiday, my hosts invited me to join them for an evening of dog racing which, funnily enough, was being held at Catford, just outside London. The irony in the venue’s name was enough to grab my attention, and I went along on the journey armed with skills no greater than those of a “social gambler”. The decision turned out to be a lucrative one.

In the first race of the evening, the card showed a dog that seemed to have an improving record, yet it was off at very long odds – something like 20-to-1. The dog won. The second race panned out in a similar fashion: my novice eye led me to bet on a dog with longish odds and (what appeared to be) an improving performance in its racing history. My dog did not win that second race. But my place bet paid off, and I was significantly up on my opening position. Beyond coincidence, my method delivered a profit in the third race, and it was at this stage that my streak attracted the attention of my hosts. From there, it was a short step to my embarrassment as it was pointed out to me that I had been reading the race card “the wrong way around”.

Contrary to my assumption that a dog's race history was recorded with the most recent race at the bottom of the card, the greyhound form that I had in my hands reported the dogs' records in reverse order, with the most recent result recorded first. The dogs that looked like they had improving form actually had deteriorating form – which explained the odds I was getting. But their recent track records betrayed their potential: they had the capacity to win, and my dogs won.

So, without knowing it, I had become a contrarian greyhound punter: a night of betting on "real dogs" had proved to be a winning strategy. So, why retell the story as part of a preface to a research note that provides compelling support for a value-based investment philosophy? The answer to this question is multifaceted.

First, gambling – with which investing is often likened – seldom works in favour of the gambler. Most gamblers lose money as they are beaten by the house. Most investors – individual investors as well as professional asset managers – also are beaten by the market (although being beaten by the market is not synonymous with losing money, so "losing investors" are typically better off than losing gamblers). Second, while there are good financial reasons to avoid race tracks, it is possible to overturn the dismal record of underperformance displayed by many asset managers and investors. This is achieved by adopting what is known as a "contrarian" investment approach or, less dramatically, a "value approach" to investing. Regardless of terminology, this approach requires the investor – or investment manager – to bet against the crowd and to oppose popular sentiment. Although by definition contrarian or value investing is a "minority" approach, the argument has been closely studied. Indeed, the international evidence is well documented – investment strategies that are based on investing in so-called "dogs" of the market consistently and substantially outperform the market in bullish and bearish settings. What is more, stocks that often are the darlings of investors' attention – what we refer to as "diamonds" in this study – all too frequently fail to deliver, and their tumble from grace results in investment losses or, at best, market underperformance. Thus, winners lose and losers win.

As an aside, it goes without saying that some of the parallels between contrarian investing and "the greyhound experience" are exceptionally poor. For example, as already intimated, gambling is a zero-sum game, whereas investing in equities is not. To be a winner in equity investments does not require an equivalent loser. Furthermore, gambling, of course, is exactly that: gambling. One does not come across many successful "self-made millionaire" gamblers. At the same time, one comes across few deprived casino owners. Investing, by contrast, can be lucrative – even for those who do not beat the market but still achieve positive returns. What is more, an appropriate investment stance can transform potentially sound investment returns into market beating returns. In turn, this process of adopting a successful investment style can ensure that you can become the investment markets' equivalent of the casino owner.

Against this backdrop, this paper provides the argument and evidence for adopting a contrarian approach in the case of South African equities. We believe that the domestic evidence presents a compelling case: betting on dogs is a winning investment formula. To illustrate the argument, the case we present below involves taking investment decisions based on the tools of value investing. The evidence that is led shows that not only is the approach lucrative – the returns achieved by the dog portfolio over our 11-year study have been more than three times the size of market returns – but the risks assumed are almost equivalent to market risks and in some cases lower than market risk. Given the dismal track records of the majority of asset managers and investors who have underperformed the market (see Section 4), we find the argument compelling.

Further to this, investing in stocks that are shunned by the market is not just a successful strategy, it is a sustainable strategy. The investment psychology shared by many investors and managers ensures that neglected stocks consistently outperform the market as the herd chases what are commonly – but mistakenly – believed to be tomorrow's winners. Stocks on high ratings – which enjoy widespread investment support – consistently underperform the market, whilst neglected stocks – trading on poor multiples – consistently outperform the market. Year after year, however, investors and investment managers slavishly follow winners that turn into losers. This begs the question: "Why do investment managers and investors stay with losing strategies?" An attempt is made to provide answers to this question which, in turn, furnishes the reader with a freshly sharpened set of investment tools. In any event, if successfully harnessed, these tools of "new finance" offer investors the opportunity to jump ship.

3. Is the Optimal Portfolio Management Style Active or Passive?

Before considering the case for value investing – or, more accurately the strain of value investing known as deep-value or contrarian investing – it is useful to step back to consider the argument for active investing under which the primary goal of the investor is to beat the market by identifying overvalued and undervalued stocks and by "timing" the investment decisions . For this reason, in the first few sections of this note we address two key questions. First, what is active investing, and how is active investing distinct from passive investing? Second, do active investors achieve their stated goal of outpacing the market?

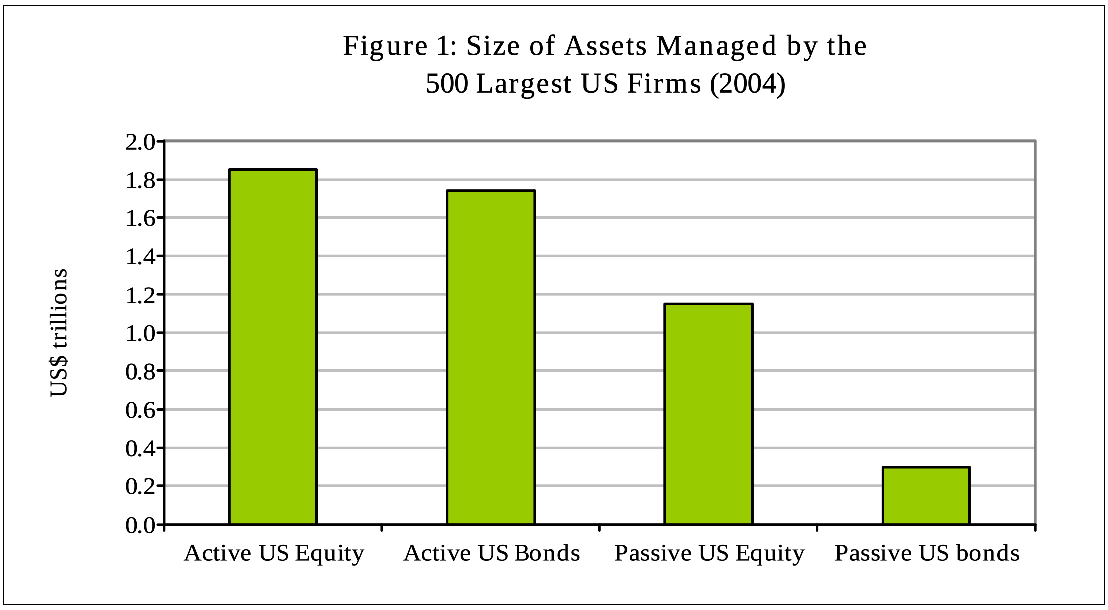
To consider the first issue, namely establishing the purpose and approach of active investing, we turn back the pages of investment finance some fifty years to retrace the steps of one of the most powerful investment theses of the twentieth century, the efficient market hypothesis. The efficient market hypothesis states that, over time, no investor is able to persistently beat the market. This view is directly opposed to the views held by those who believe in active investment management strategies, who argue that above-average portfolio returns can be achieved by using stock selection techniques to identify undervalued stocks to buy and overvalued stocks to sell. Further, active managers tend to argue that portfolio returns can be enhanced by market timing, which involves adjusting portfolios according to the manager's predictions about sectors of the market, asset classes, currencies or even countries. The net effect of correctly timing the market is the production of market-beating returns in up markets and less downside in portfolio values during down markets.[2] At any rate, where managers act on perceptions of mispricing they become active. Furthermore, the fact that the changing perceptions of active managers tend to cause them to act frequently means that the term “active” is particularly apt (Sharpe, 1991, 7).

In contradistinction, supporters of the efficient market hypothesis argue that markets are efficient because investors are highly informed, a large degree of consensus exists about securities’ values and doing investment analysis is costly (Francis and Ibbotson, 2002, 55). Moreover, it is pointed out by this group that, even if active managers possess the ability to identify and time investment opportunities, these advantages are eroded by transactions costs and taxation, and potentially further diluted by the higher risks brought about by market timing. So, the argument goes, active portfolio management is unlikely to yield superior returns because, in the presence of a large number of knowledgeable active investors, the prices of undervalued assets will be bid up quickly whilst the prices of overvalued assets will be forced down. If this holds, then we are forced to conclude that at any time assets will be fairly valued, and so extra returns cannot be extracted by active management.[3] In addition, even if markets are semi-efficient, subscribers to the efficient market school of thought contend that competition for investment opportunities means that only serious analysis and uncommon investment techniques are likely to generate the differential insight needed to earn abnormal returns. Thus, the widely held view is that, to be successful, active managers must be “armed with the best research money can buy, and legions of well-trained, battle-hardened colleagues” (Dreman, 1998, 31). But, because the gains generated by active management are modest and the risks incurred often significant, supporters of the efficient market hypothesis have come to the conclusion that active portfolio management is largely wasted effort: “… [t]he gains extracted are unlikely to justify the expenses incurred” (Bodie, Kane and Marcus, 1999, 191). Based on these arguments, supporters of the efficient market hypothesis hold that the optimal investment approach is to simply match the market’s performance and not aim to beat the market. This approach goes under the label of “passive investing” or “index investing” where the objective of the investment manager is straightforward: to trace the market’s movements with minimum error.

Unsurprisingly, advocates of each of these schools of thought have keenly contested the above views. At the same time, however, it is interesting to note that the passive investment approach has enjoyed increasing support as acceptance of the efficient market hypothesis has grown since the 1960s. By way of example, in the United States (US) the size of passively managed funds has developed from a base of close to zero at the end of the 1950s to a substantial portion of assets under management today (see Figure 1). Similar trends are evident elsewhere in the world, and the South African investment market is no exception.

[2] See our research note on the topic of market timing titled ***They’re Leptokurtic with Fat Tails: That Means Stay Invested*** (March, 2004) available at www.cannonassets.co.za/research.asp.

[3] This point rests at the heart of the efficient market hypothesis.



Source: Crain Communications

Nevertheless, whilst the efficient market hypothesis has enjoyed widespread acceptance and, as noted, attracted substantial investment flows to passively-managed portfolios, there is a large contingent of investment managers who maintain that active portfolio management offers the ability to outpace the market. Unfortunately, for supporters of the active investment approach, most of the evidence supports the contention of passive managers: collectively, investors are unable to beat the market (this point is developed below in Section 4). Based on this argument and the evidence gathered from different markets, it frequently is concluded that a passive stance represents the most appropriate approach to investment management.

In support of this conclusion, early in the 1990s, William Sharpe (1991), winner of the 1990 Nobel Prize in economics, produced a short – but highly insightful – article that provided the proof required by passive investors.[4] The article effectively demonstrates that:

- before costs, the return on the average actively managed dollar will equal the return on the average passively managed dollar; and
- because active managers bear greater costs, it follows that the after-cost return from active management must be lower than that from passive management.

Through this argument Sharpe showed that the common thinking supporting active management was patently flawed. Indeed, in his paper Sharpe (1991, 7) reveals the error in the common view that: "… the case for passive management rests only on complex and unrealistic theories" and "… any [business school] graduate … should be able to beat an index fund over the course of a market cycle".

As an aside, despite his scathing criticism of active portfolio management, Sharpe recognised that some explanations can be found for the view that active managers will

[4] Although the proof is not reproduced here, the argument is elegantly simple and easily accessed by consulting Sharpe's (1991) original work.

outperform passive managers. For instance, passive managers may not be truly passive; active managers may not fully represent the active market – some active managers could be excluded from the measure; and many practical difficulties present themselves when measuring investment returns on the average actively managed and average passively managed dollar. But these issues are practical hurdles that can be overcome, and are insufficient to refute Sharpe's (1991, 9) conclusion that:

> [p]roperly measured, the average actively managed dollar must underperform the average passively managed dollar, net of costs. Empirical analyses that appear to refute this principle are guilty of improper measurement.

Given this conclusion, there seems to be little point in consulting the empirical evidence to consider the merits of active asset management. However, on closer inspection, the evidence reveals that there is more to the argument than the single conclusion that, collectively, active managers cannot outperform passive managers. The reason for this is simple: not everyone is average.

4. Active Investment Strategies: A Bad Day at the Races?[5]

> Markets, they said, are efficient. That meant that stock prices are determined by the thorough and diligent work of the brightest analysts, money managers and other investors. The combined knowledge of thousands of these experts kept prices exactly where they should be. No one can beat the market consistently.
>
> ***David Dreman*** (1998)

The success of active investment managers can be measured by their ability to time the market and to identify overvalued and/or undervalued assets. Initially, research did not attempt to attribute the success of active asset managers to these distinct skills. Rather, research simply aimed to establish whether active portfolio managers outperformed the market (Jensen, 1968). With time, however, this question has been refined to address two separate issues (Elton and Gruber, 1991; Biger and Page, 1994), namely:

- Do active managers outperform passive managers?
- If they do, is this due to an ability to time the market and/or an ability to select overvalued and undervalued assets?

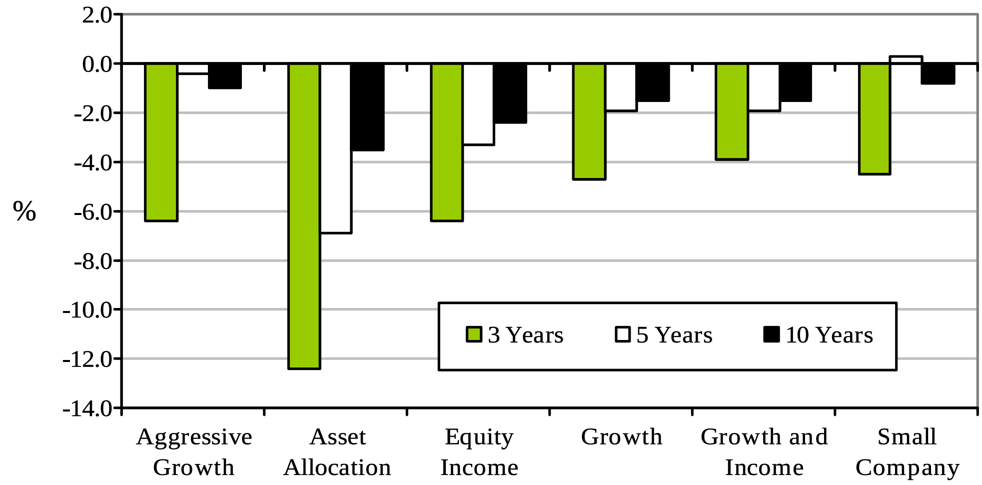
However, in this note we are not overly concerned with the finer point of attributing active managers' performances to selection or timing skills. Rather, the issue at stake is the relative performance of active managers captured by a single question: "Do active managers beat the market?" In a word, the answer is "no".

To support this answer, the bulk of the available evidence on the investment results of active managers shows that the great majority of asset managers are consistently beaten by the market. John Bogle, founder of one of the world's largest mutual fund management businesses, the Vanguard Group, showed that 90 percent of active managers underperformed the market in every ten-year period since measurement

[5] The evidence presented draws heavily on Oldfield and Page (1996).

began in the 1960s (Dreman, 1998, 31). In ***A Random Walk Down Wall Street***, Burton Malkiel (1999) studied every US equity mutual fund from 1971 to 1991 and found that every one was beaten by the market. More recent evidence confirms these findings for the six major classes of stock funds in the US measured for the three-, five- and 10-year periods to the end of 1997. Of the different asset classes investigated, only one class of manager provided better returns than the market, and this return only held over five years - a dismal outcome for active asset managers (see Figure 2).

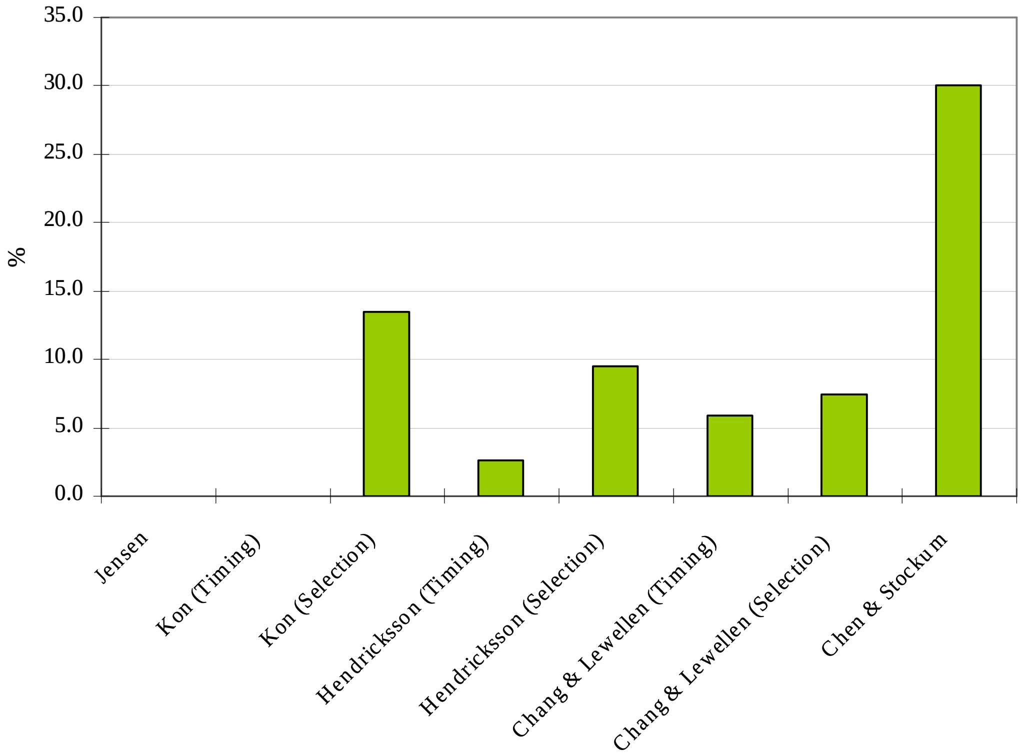
Figure 2: Relative Performance of Active US Mutual Fund Managers (Three, Five and 10 Years to End 1997)



Source: Lipper Analytical Services adapted from Dreman (1998, 32)

More detailed studies provide equally compelling evidence of the underperformance of active managers (see Figure 3). Jensen (1968) investigated 115 mutual funds in the US over the period 1955-1964 and found that no funds significantly outperformed a passive buy-and-hold strategy. McDonald (1974) reached a similar conclusion: the majority of 123 actively managed unit trusts in the US did not beat the New York Stock Exchange (NYSE) over the period 1960-1969. Kon (1983) investigated 37 US unit trusts between 1960 and 1976 and found that none of the funds displayed evidence of managers' abilities to time the market and more than three-quarters failed to show evidence of mangers' abilities to select investments. Hendricksson (1984) studied the performance of 116 unit trusts in the US over the period 1968-1980 and found that just 11 of the 116 managers showed evidence of selection ability and only three of the 116 managers showed evidence of an ability to successfully time the market. Based on the performance of 67 US unit trusts, Chang and Lewellen (1984) found that four fund managers displayed positive timing skills and just two managers displayed positive selection skills. Biger and Page (1994) found no evidence of timing or selection ability amongst managers of 16 Israeli unit trusts.

Figure 3: A Sample of Unit Trust Managers Outperforming the Market through Active Investment Management



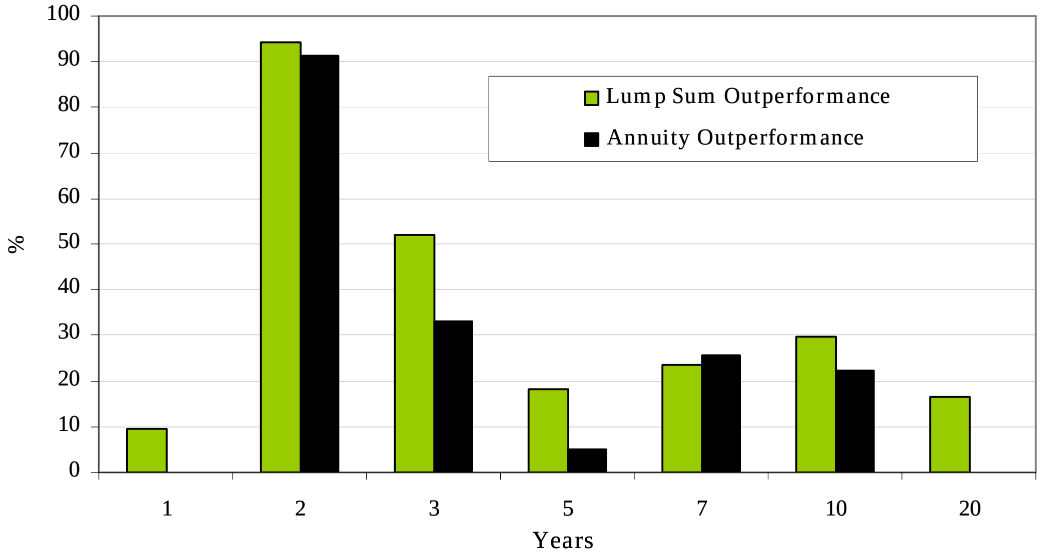
Source: Derived from Oldfield and Page (1996)

Of course, not all studies have reached the same conclusion as that presented above – some evidence of active management skills has been found. For instance, Chen and Stockum (1986) found that about one-third of 43 US unit trusts investigated displayed evidence of stock selection skills; and Grinblatt and Titman (1989; 1993) found evidence of superior performance by active managers in a large sample of US unit trusts over the period 1974-1984. On balance, however, the international evidence sampled is convincing: collectively, active managers are unable to consistently beat the market.

Considering the South African case, although the evidence is unfortunately thin, the data point to the same conclusion as the international evidence. Knight and Firer (1989) were the first to publish results of an investigation into the performance of active managers of unit trusts in the South African setting. The study found that between 1977 and 1986 just two of 10 funds performed better than the overall market on a risk-adjusted basis. Continuing in this vein, Chapman and Smith (1993; 1994) found little evidence to support the view that active management is superior to passive management. Later, Oldfield and Page (1996) examined the performance of 17 unit trusts over the period 1987-1994 and found very weak evidence of the ability of managers to time the market and no evidence of an ability to select investments. Further, although, Akinjolire and Smit (2003) found some evidence of successful active management of South African unit trusts, their findings do not suggest that active managers collectively beat the market.

Apart from the above academic results, a survey of the performance of domestic unit trust managers over the two decade period 1985 to 2004 reveals that, on balance, active managers do not beat the market. The data presented below are based on returns reported by active managers of South African unit trusts for the past 20 years. The results compare the performance of unit trusts that are invested in equities or equity-based portfolios with the performance of the All Share Index. It should be noted that the returns on the All Share Index (ALSI) have been adjusted to include dividends.[6] Two sets of unit trust returns are compared to the average annual market return over the 20-year period, namely returns based on a lump sum investment and those derived from a monthly annuity investment.[7] In both cases the results are damning of active managers. Over any reasonable measurement period, active managers are convincingly beaten by the market.

Figure 4: South African Active Unit Trust Managers' Outperformance Rate (1985-2004)



Source: Data adapted from Profile Media and McGregor-BFA

As Figure 4 shows, over the 20 year period analysed active portfolio managers had a tough time when pitted against the market. Measured over five, seven, 10 or 20 years, fewer than 30 percent of actively managed unit trust funds beat the market. Admittedly, the nearer-term performances of active managers were somewhat more convincing. However, it should be kept in mind that the most recent two years in the study relate to a strong domestic market environment. More importantly, there is nothing in the evidence that suggests this outperformance ability is sustainable. Measured on a lump-sum basis, over the five-year period 2000-2004, just 18.4 percent of actively managed funds beat the market. The figure rises to 29.6 percent over the 10-

[6] As reported by the JSE, the ALSI's returns are net of dividends, and so understate the returns that would be achieved by a passive portfolio representing the market portfolio.

[7] The return data are measured and reported for the period to end June 2004.

year period 1995-2004, but collapses to an outperformance rate of just 16.7 percent over the full 20 year period covered by the survey. Measured on an annuity basis, the figures are even more unflattering of active managers: over five years 25.5 percent of active managers beat the market; this figure drops to 22.2 percent over 10 years whilst, when measured over 20 years, no active fund manager beat the average return delivered by the market. Table 1 provides a numerical summary of Figure 4.

Table 1: Active Fund Managers' Outperformance Rate (1985-2004)

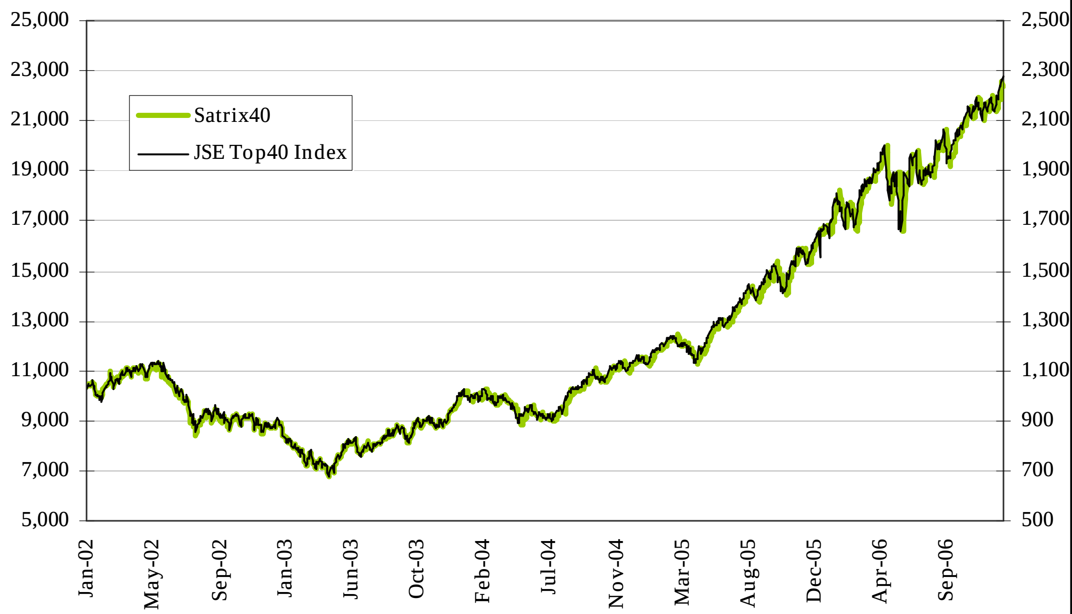
Measurement Period (Years)	Average Rate of Return (ALSI) (%)	Number of Active Funds Measured	Active Fund Outperformance Rate (Lump Sum Investment) (%)	Active Fund Outperformance Rate (Annuity Investment) (%)
1	32.9	176	9.7	0.0
2	3.5	158	94.3	91.1
3	12.1	142	52.1	33.0
5	18.5	98	18.4	5.1
7	13.5	51	23.5	25.5
10	13.5	27	29.6	22.2
20	18.1	6	16.7	0.0

Source: Data adapted from Profile Media and McGregor-BFA

Given the dismal record of active investment managers it is hardly surprising that passive portfolio managers contend that the most effective and efficient way in which to achieve satisfactory investment results is to hold every investment in the relevant universe, that is, to passively track the market. To illustrate the point, in the case of the South African equity environment, a passive investor could get effective exposure to the domestic market by way of Satrix securities which are investment instruments known as exchange traded funds (ETFs).[8] Figure 5 demonstrates the ability to achieve the return on an index by way of a single investment through an exchange traded fund. In the case shown, the exchange traded fund is the Satrix40 which is benchmarked against the JSE's Top40 Index (JSE Top40 Index). Over the period the ETF hugged the benchmark index by way of a correlation coefficient of 0.997. Thus, the evidence demonstrates the efficiency of ETFs in mimicking the performance of the market and, as noted above, in most cases mimicking the market's performance over sufficiently long investment periods means that the passive investor will have done better than most active fund managers.

[8] Satrix securities are listed Collective Investment Schemes that replicate the dividend and price performance of a particular index. They provide the same returns as would be received had the investor directly purchased shares in each company in the relevant index of the JSE. Further to this, the Satrix security provides close-to-perfect index tracking performance because the manager of the Satrix portfolio replicates the relevant index exactly. Moreover, because the Satrix security gives the same return as would be received if an investor directly purchased shares in each company in the relevant JSE index, the security provides the investor with all the benefits of diversification, for the cost of a single transaction.

Figure 5: Satrix40 and JSE Top40 Index (2002-2006)



Source: McGregor-BFA

5. The World Turned Upside Down[9]

… no matter how many instances of white swans we may have observed, this does not justify the conclusion that all swans are white.

Karl Popper

Progress, far from consisting in change, depends on retentiveness.

George Santayana

Given the above arguments and evidence, what case is there for active portfolio management? The evidence presented suggests that markets are efficient and that active managers are unlikely to outperform the market. However, there are at least three sound objections to the conclusion supporting a passive approach to portfolio management.

First, from a philosophical stance, it is hard to accept that all professional investors have underperformed the market for decades. As Dreman (1998, 63) asks: “How … could … professional opinion prove so consistently and dramatically wrong …?” As a simple example supporting this point, if markets are efficient, as advocates of passive

[9] Cannon Asset Managers’ investment style is based on the principles of active investment management anchored in a value-based investment philosophy. Our investment track record is available at www.cannonassets.co.za.

investing believe, then events like market crashes and euphoria-driven bubbles are hard to explain. Indeed, the occurrence of such events point in the direction of market inefficiency. In turn, the existence of inefficiently (or wrongly) priced assets creates the potential for active managers, who discover and successfully exploit inefficiencies, to beat the market.

Second, in many of the studies conducted, including those cited above, the measurement tools used to demonstrate that active managers do not beat the market are partial or incomplete in application. For example, in Jensen's (1968) study, one fund manager had beaten the market by more than two percentage points per annum over a 20-year stretch. Yet the study rejected this evidence of outperformance on the basis that it was "not statistically significant". On this point, Lawrence Summers of Harvard University estimated that it would require 50 000 years' worth of data to satisfy the data input requirements of market efficiency tests. So, with a little more than 100 years of market data available in the South African setting or just over 200 years data in the case of the US, it becomes clear that investors need to elect the active or passive side of the management fence on other evidence.

Third, not only Warren Buffett beats the market. Whole schools of investment managers have produced long runs of "abnormal" returns that are hard to label as lucky outcomes. To go further, history suggests that these managers have been successful in identifying persistent asset pricing anomalies. The basis for this point rests on simple, but extraordinarily powerful, reasoning: anomalies exist because investors overreact. They push prices down too far and up too high. Overreaction occurs in most areas of our lives. As a case in point, talk to supporters of winning or losing sports teams as the result of the game is delivered.[10] One group is swept away in a wave of euphoria whilst the other wallows in morbid gloom – until the next game, of course. In any event, it is this human act of emotional overreaction that creates extraordinary – and persistent – market-beating opportunities. In short, not only do investors overreact, they do so predictably and systematically (Dreman, 1998, 20). Moreover, because investors "herd", it follows that most (but not all) investors make the wrong decisions together. So, together, herding and overreaction cause most active managers to behave in such a way that they collectively are beaten by the market. Conversely, by standing apart from the crowd and stripping emotional influences out of the investment decision affords an active investor the opportunity to beat the market. Understanding this phenomenon provides the basis for consistently earning market-beating investment returns.

One of the best documented examples of consistent outperformance caused by investor overreaction is found in the pricing anomalies of value stocks and, in extreme cases, contrarian (or deeply depressed) stocks. On this front, the investment approach adopted by value and contrarian investors hinges around identifying stocks which

[10] A recent example of crowd euphoria and hysteria is the Springbok's erratic performance during the 2006 Tri Nations. During the first part of the competition, the Springboks performed dismally away from home, which included a record loss against the Wallabies (49-0). On their return to home ground the same side showed a stunning improvement to the extent that the Springboks were the only team to beat the world's number one team, the All Blacks, in 2006 (21-20). As a result, optimism amongst Springbok supporters was restored, only to be dashed by a record loss to Ireland two months later (32-15). This type of emotionally charged reaction is commonplace, and generally eclipses sensible, long-term analysis.

exhibit "value" characteristics, such as low price-earnings ratios, high dividend yields, high cash flow-earnings ratios, low price-net asset value ratios and high rates of return on equity and return on assets relative to market valuations. As an aside, it is worth noting that according to ***Institutional Investor Magazine***, value managers can be grouped into one of four categories: low price-earnings managers; high-yield managers; low market-book value managers; and low price-cash flow managers.[11]

However, and to return to the point, evidence from international and domestic equity markets suggest that value counters provide the potential for persistent market outperformance. Active managers who pursue value strategies consistently discover diamonds in the rough; the rest tend to find bogies from the fairway. The explanation behind this outcome is elegantly simple: the majority of active managers chase "winning stocks" which often go under the banner "growth stocks". As the herd stampedes into these highly sought after opportunities they push valuation multiples to increasingly stretched levels as manager after manager follows the stock higher. However, as multiples become increasingly stretched, the stock's capacity to disappoint grows, and, at some point "winners" invariably deliver a result that is shy of expectations. The result is inevitable: the stock price tumbles from glory as investors' overreaction on the upside is matched by overreaction on the downside with investors rushing for the door, often ***en masse***.

By contrast, "loser" stocks drift listlessly on low multiples. However, this neglect means that ignored or depressed stocks have a greater propensity to surprise on the upside – the gloom and doom scenarios painted by analysts and investors are simply too gloomy. Just as winners disappoint, so losers surprise. Critically, with positive surprise comes a rapid revival in investor interest – and stock price – as the pall is replaced by optimism. Dreman (1998, 140) makes the point succinctly:

> … the findings show that companies the market expects the best futures for, as measured by the price/earnings, price-to-cash flow, price-to-book value, and price-to-dividend ratios, have consistently done the worst, while the stocks believed to have the most dismal futures have always done the best.

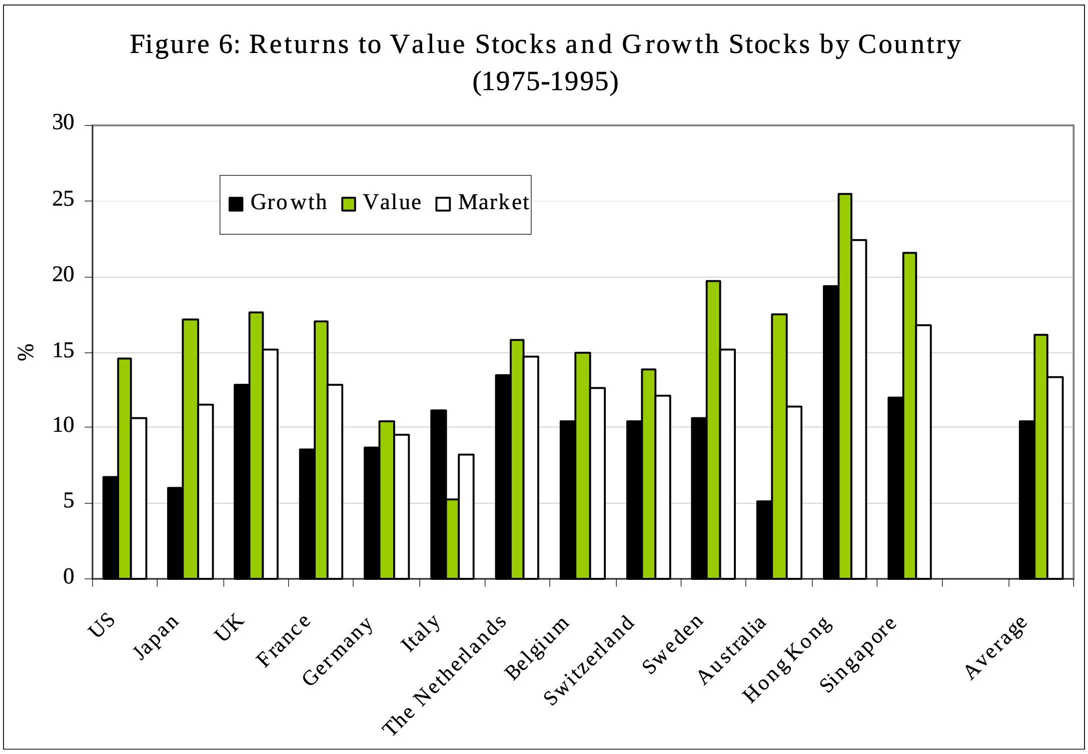
In short, betting against the crowd by way of value strategies offers an active investment avenue to consistent outperformance.

[11] For the sake of the argument, contrarian investing is considered to be an extreme case of value investing. Thus, in this paper, the term "value" is treated as a catch-all for the different forms of value investing, regardless of "degree" or "type". The definitive work on value investing remains Graham's (2003) ***The Intelligent Investor***.

> There is an appointed time for everything, and a time for every affair under the heavens.
> A time to be born, and a time to die; a time to plant, and a time to uproot the plant.
> A time to kill, and a time to heal; a time to tear down, and a time to build.
> A time to weep, and a time to laugh; a time to mourn, and a time to dance.
>
> ***Ecclesiastes (Chapter 3)***

The investment literature is rich with cases of the success of value strategies. For example Jegadeesh and Titman (1993) examined the performance of US stocks over the course of the 1980s, and found that “winner portfolios” (which housed companies that delivered positive earnings surprises) were consistently beaten by “loser portfolios” (housing stocks that reported negative earnings surprises) after lags of as short as a year. At first blush, the result seems to be at odds with investment logic. However, upon closer inspection, the outcome is explained by the fact that the so-called winners were unable to sustain the euphoria (and so market rating) associated with the initial earnings announcements (and ***vice versa***). Little (1962) showed similar evidence for the British market in his charmingly titled article ***Higgledy Piggledy Growth***, the findings of which were transported to a US study fashioned along the same lines conducted by Lintner and Glauber (1967).

In this vein, Michelle Clayman (1987) undertook an examination of the stocks identified by Peters and Waterman (1984) as “excellent” in their 1980s management “bible” ***In Search of Excellence***. In a surprising result, Clayman found that the excellent companies identified by Peters and Waterman underperformed “un-excellent” companies on a consistent basis and by a wide margin. As a matter of fact, the un-excellent companies produced an all-in return of 197.5 percent over the survey period, 1981-1987. Over the same stretch of time, the excellent companies delivered a return of just 81.6 percent. However, by far the most well known study undertaken on the value effect is that conducted by Fama and French (1998) on equities listed on 12 exchanges and conducted over 20 years of data (1975-1995). Their findings are convincing: value stocks outperformed growth stocks in all but one of the countries examined (Italy), with value stocks delivering an average return that outpaced growth stocks by more than five percentage points per annum over the 20 years (see Figure 6).



Source: Adapted from Fama and French (1998)

To illustrate the significance of the performance differential reported by Fama and French, over 20 years a portfolio equally invested in value stocks across the sample of countries would have outperformed a growth portfolio by almost three hundred percent. Moreover, whilst Fama and French's study provides compelling evidence of the so-called "value phenomenon", there is an abundance of other studies that unearth the existence of the value phenomenon around the globe.[12] Of these, the best known recent evidence is that provided by Joel Greenblatt (2006) in ***The Little Book That Beats the Market***. Greenblatt shows that a portfolio of 30 US stocks that trade at below-market price-earnings ratios but display above-average returns on assets would have earned the investor 30.8 percent ***per annum*** over the period 1988-2004 as opposed to the market average of 12.4 percent ***per annum*** (Greenblatt, 2006, 56). This annual difference would mean that the investor in Greenblatt's value portfolio would have had a terminal portfolio value 13 times greater than an index portfolio.

Based on this and similar evidence, it is difficult to avoid the conclusion that the value phenomenon is "global" and "deep", by which it is meant that the phenomenon exists universally and that it persists over time. Over reasonable investment periods, value stocks beat growth stocks and value stocks beat the market.

Of course, these findings beg the question: "Does the value phenomenon exist in the South African setting and, if so, does it persist?" The answers to this question are explored below.

[12] To cite just two cases, see for example, Lakonishok, Shleifer and Vishny (1994) and La Porta, Lakonishok, Shleifer and Vishny (1997).

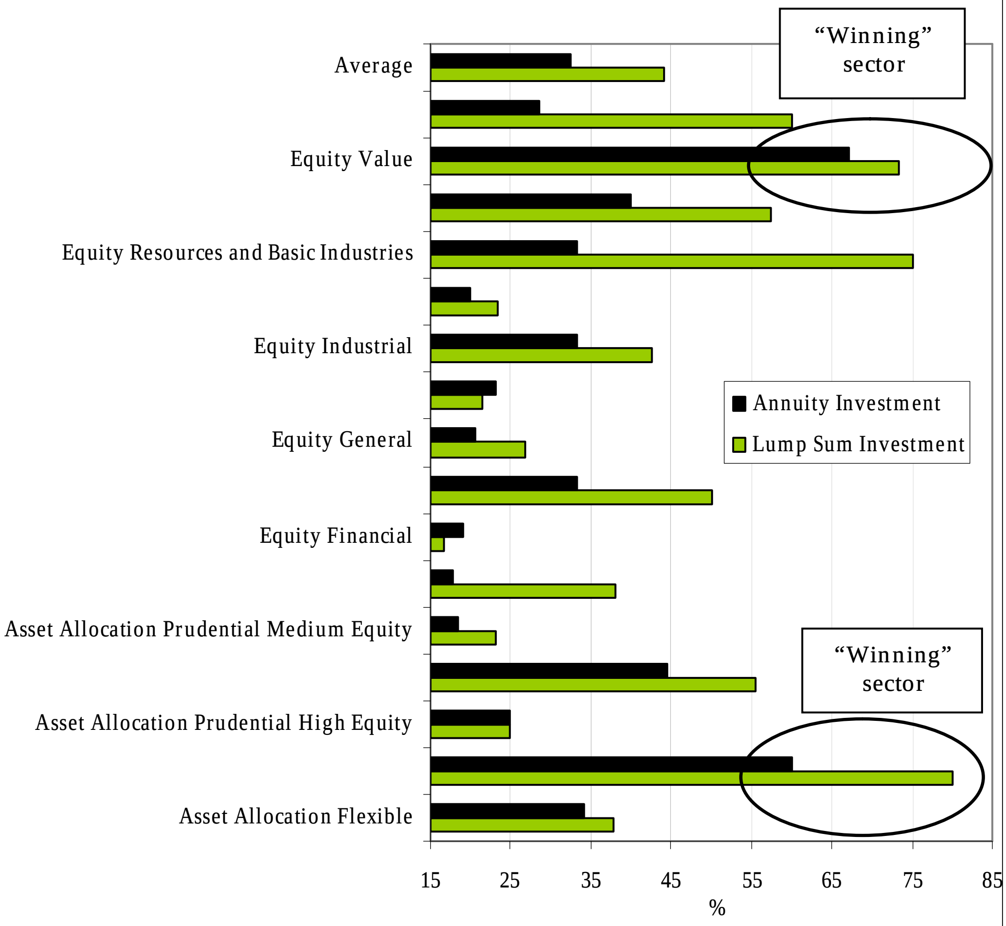
As was noted in Section 4, the data drawn from the domestic unit trust market reveal that, collectively, active managers of South African equities historically tend to have not beaten the market. On closer inspection, however, some interesting features emerge which suggest that, as is the case elsewhere in the world, South African equity markets exhibit a value phenomenon. To state the case simply, the JSE is not efficient and, the evidence presented suggests that abnormal returns can be achieved by "pursuing value".

The probability of successfully beating the market by pursuing value-oriented equities is illustrated below, where Figure 7 shows outperformance by active managers on a ***per*** category basis over the 20-year period 1984-2004. In the analysis, performance is measured using two assumptions, namely the investment of a lump sum amount and investment of an annuity amount (where the latter offers the advantage of cost averaging). Each of the categories contains only domestic funds; the returns are based on a sell-to-sell basis (that is, net of all costs) with income and dividends reinvested. The effects of taxation are ignored. The sample includes 658 fund returns recorded over one, two, three, five, seven, 10 and 20 years.

As can be gleaned from the data, the average rate of outperformance by active equity managers is modest. Over the sample, just 44.2 percent of active managers' returns were ahead of the market on a lump sum basis. On an annuity basis, 32.4 percent of returns reported are ahead of the market. Furthermore, using either a lump sum- or annuity-based investment, in only seven of the 16 sectors did managers record more than half of their returns above the market. However, in these seven sub-sets, two sectors have produced high levels of outperformance on a consistent basis. On a lump sum-basis, 80 percent of the returns generated by flexible property funds were ahead of the market; using annuity-based returns the figure of 60 percent is still, on average, "market beating". However, if one includes the effects of tax, where a large portion of flexible property fund returns are subject to income tax, the figures drop to below 50 percent.

This leaves only one sector whose lump sum- and annuity-based returns, on average, are ahead of the market, namely the value sector. Over the sample period, based on a lump-sum investment, 73.3 percent of returns reported by active value managers are ahead of the market. Using annuity-based figures, 67.1 percent of returns reported by active value managers are ahead of the market. Given that tax considerations are negligible in the case of pure equity funds, these figures are considered to hold on an after-tax basis. In short, of the 658 sets of actively managed unit trust returns sampled, only one group of active managers – value managers – report after-tax returns that, on average, are ahead of the market using annuity-based and lump-sum returns as the basis for measurement.

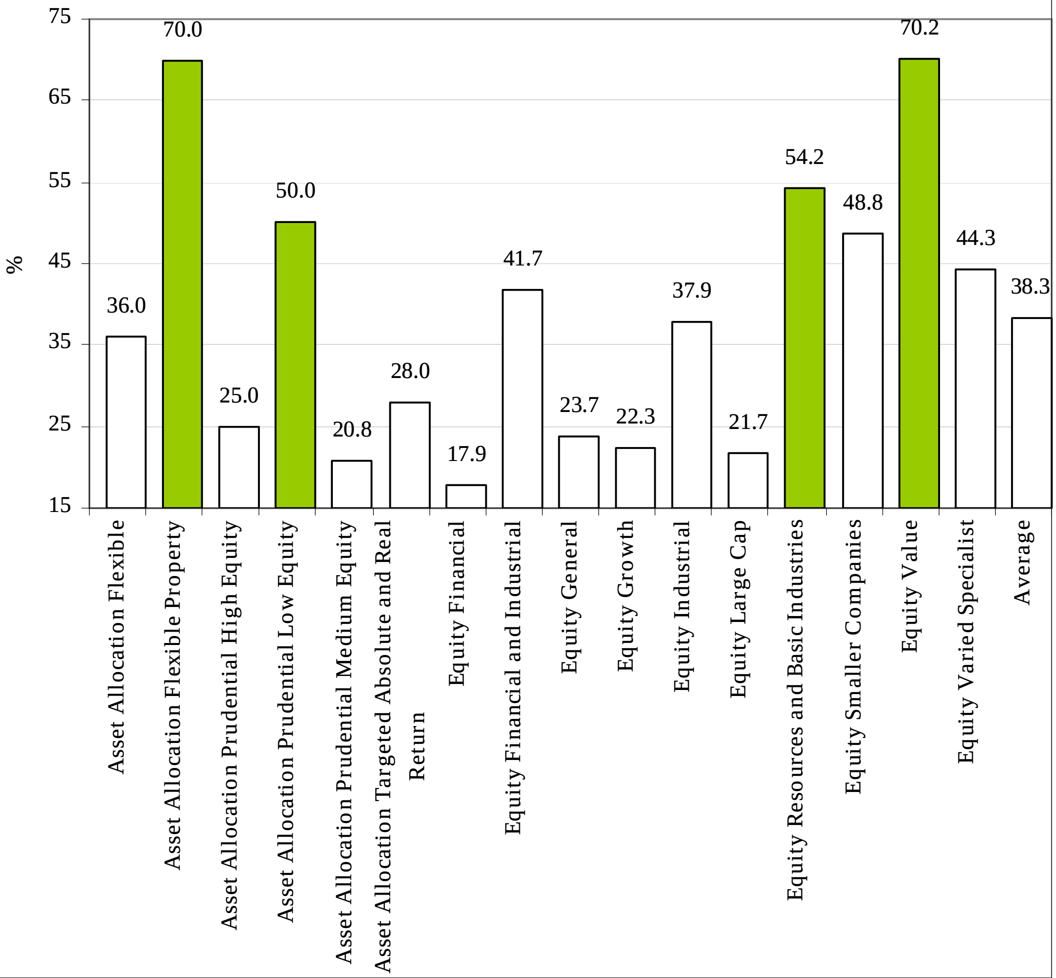
Figure 7: Outperformance by Sector Achieved by Domestic Active Equity Managers (1985-2004)



Source: Data adapted from Profile Media and McGregor-BFA

Thus, the evidence suggests that the South African equity market exhibits the same anomaly as other equity markets reported above, namely the existence of a value phenomenon. The results also suggest that the phenomenon is "persistent" (annuity-based and lump sum-based investments deliver market beating results) and "deep". This last point is supported by the evidence presented in Figure 8 which shows that the average rate of outperformance by active managers of value portfolios was just shy of 75 percent over the 20 year survey period.

Figure 8: Average Frequency (%) of Outperformance by Sector
(Lump Sum and Annuity Returns) (1984-2004)



Source: Data adapted from Profile Media and McGregor-BFA

Thus, the arguments presented above provide support for the existence of a value phenomenon in the South African equity market.

Do not stand at my grave and weep.
I am not there, I do not sleep.
I am a thousand winds that blow.
I am the diamond glint on snow.
I am the sunlight on ripened grain.
I am the gentle autumn rain.
When you wake in the morning hush,
I am the swift, uplifting rush
Of quiet birds in circling flight.
I am the soft starlight at night.
Do not stand at my grave and weep.
I am not there, I do not sleep.
Do not stand at my grave and cry.
I am not there, I did not die.

Mary Frye (1932)

Against this backdrop, Cannon Asset Managers' investment team has been running a "deep value" portfolio for the past 11 years. The portfolio is constructed and managed using "contrarian" principles – in other words selecting stocks that the market has shunned. The portfolio's performance has been measured against returns generated by a suitable market index (the passive argument) and a portfolio made up of the stocks that are most highly rated by the market (the growth argument).

The results of this exercise are astounding: on a compound basis our portfolio of "dogs" has consistently beaten the market over the past decade by a wide margin. The portfolio's performance has also eclipsed that of the market's stars – or what we have called the "diamond" portfolio, a portfolio consisting of growth stocks. The evidence is presented below.

The study that we have run since 1996 uses a set of simple rules to build two portfolios, namely a dog, or value, portfolio that consists of the market's most neglected stocks and a diamond portfolio, which is made up of growth stocks to which the market applies the highest ratings. In turn, the performances of these portfolios are contrasted to a market-based performance. For the sake of terminology, the dog portfolio embodies the principles of value investing, whilst the diamond portfolio carries the principles of growth investing. The dog and diamond portfolio both embody the principles of active investment management; the market portfolio embodies the principle of passive portfolio management.

In terms of portfolio construction, the rules applied to build the portfolios include the following:

i. The portfolios consist of the three lowest rated and three highest rated stocks drawn from each sector of the JSE that contains at least six stocks.[13] The price-

[13] Until 2005 we used a minimum sample of 10 stocks per sector. However, since then the reclassification of the JSE has diminished the size of many sectors causing us to reduce our minimum sector sample to six.

earnings rating is based on the trailing price-earnings ratios as reported on the first trading day of each year.

ii. Only stocks with positive earnings per share are included in the portfolios; this rule ensures that the portfolios are constructed from a universe of profitable companies.

iii. All sectors from the financial and industrial boards are considered. As noted, sectors that have fewer than six stocks with positive headline earnings per share are excluded as the sample is too small to offer useful results. As an aside, it is worth commenting that over time this rule has generated some anomalies, such as the inclusion of Petmin, a resource-based stock, in financial services in 2004. However, such anomalies are ignored in order to avoid the introduction of arbitrary rules or rules that unnecessarily complicate the construction of portfolios.

iv. Resource stocks are excluded from the sample, as are investment trusts and cash shells. These groups are excluded because valuations are not driven, necessarily, by immediate earnings prospects. To put the point differently, the study ignores sectors where it is difficult to use a stock's price-earnings ratio as the basis for quantifying "style".

v. Stocks listed on the Venture Capital Market and Development Capital Market are ignored due to a deficiency of meaningful historical results. Again, in the absence of a suitable track record it is difficult to quantify "style".

vi. In the case of multiple points of entry – which includes the historically infamous pyramid structures, holding companies or multiple share classes, such as low voting "N" shares – the most "extreme" point of entry is favoured over all other points of entry (which then are ignored). This rule avoids replication of holdings which would concentrate exposure in the portfolios. The exception to this rule is where multiple points of entry appear in the dog and diamond portfolios. In such instances the holdings are included in either portfolio on the basis of a "mean reversion" argument. Preference shares are ignored.

vii. There are no capitalisation constraints, so the dog and diamond portfolios consist of an array of different sized companies.

Once formed, the two portfolios each consist of three stocks per sector across multiple sectors with the three most highly-rated stocks in each sector going into the diamond portfolio and the three most lowly-rated stocks in each sector going into the dog portfolio. Importantly, this diversification across sectors is a relatively unique aspect of this type of survey. Most comparable studies do not build diversified portfolios. Rather, other studies have tended to ask the question: "Do stocks with low price-earnings ratios outperform stocks with high price-earnings ratios?" In the resulting samples it is commonly found that stocks "cluster" – so in the late 1990s high price-earnings portfolios would have consisted of a high concentration of technology counters, and high concentrations of smoke-stack stocks would have appeared in the low price-earnings portfolios. In such instances it would be more correct to phrase the question: "Do sectors that have a high representation of stocks with low price-earnings ratios outperform sectors with high concentrations of stocks with high price-earnings

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This change in sample size does not alter the tone of the study, nor does it affect the principles under investigation.

ratios?" Arguably, this is not a particularly interesting question, as few active managers would build portfolios with such low levels of diversification. As noted, we overcome this pitfall by diversifying our portfolios across all sectors with a sufficiently large stock sample. So, a more accurate phrasing of the question that we are asking is: "Does a diversified portfolio consisting of stocks with low price-earnings ratios outperform a diversified portfolio of stocks with high price-earnings ratios, and how do these two baskets of portfolios perform relative to the market?"

A second unique feature of our study is that the inquiry is run as a live investigation. The portfolios have been formed at the beginning of each year and then held in a real time setting. Our study is not a backtest. The weakness of backtesting is that it often can lead to data mining so that the analyst finds what (s)he is seeking.[14] Or, as the common saying goes: torture the data long enough and they will confess to anything. Whilst "live testing" is an extremely protracted exercise – the researcher requires a year to get a year's worth of results – it is also the truest way of testing any hypothesis of investment finance. As noted, we believe that our live experiment is a relatively unique study in this country. As such, the study offers valuable insights and inputs into the debates surrounding active management and value investing.

Regardless of whether tests are run on a live or backward looking basis, all portfolios encounter situations where decisions must be taken. Again, a set of rules inform the study:

i. Stocks are included in the portfolio at the last traded price at the start of the year and sold out of the portfolio at the last traded price of the end of the year. No other liquidity constraints are applied.
ii. Dividends that are earned are reinvested on the date of receipt.
iii. Where a stock is suspended its value is written down to zero. This is an important aspect of the study as it means that the results do not suffer from survivorship bias.
iv. Where a delisting occurs and a scrip or cash offer is made, it is assumed that the scrip offer is accepted. However, where cash must be taken, then it is assumed that the liquidation dividend is paid into an interest-bearing account earning interest at a rate of return equivalent to that on a 32 day-notice deposit made with a clearing bank. Interest earned is compounded and subject to the marginal tax rate at the end of the calendar year.

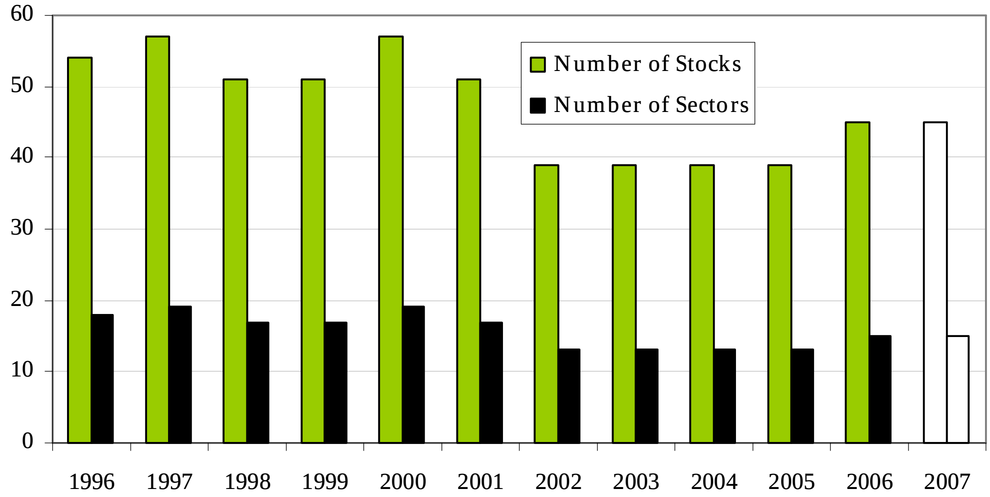
The salient features of the investment results achieved by the portfolios are reported below where attention is concentrated on the relative return performances of the portfolios. Given that resource stocks are excluded from the sample, the passive benchmark portfolio is assumed to be the JSE's Financial and Industrial Index (FINDI).[15] For the sake of completeness, each of the portfolios constructed over the period 1996 to present are available for download in the form of an appendix.[16] The appendix includes detailed portfolio sheets that provide information on the sectors

[14] To be more exact, backtesting suffers from what academics formally refer to as "look-ahead bias" and "survivorship" bias.
[15] In the remainder of this paper the term "the market" refers to the FINDI.
[16] The file can be downloaded by following the links at www.cannonassets.co.za/research.asp.

invested in and the identity of the stocks held in those sectors. The portfolio sheets also detail the purchase and sale prices of the stocks, dividend yields and price-earnings ratios on each stock and any corporate action that affected the terminal price of holdings. The appendices also provide annual summaries of risk and return statistics.

Before considering the performance results, as a final note on portfolio construction it is worth noting that the portfolios built over the 11-year period have held an average of 47 stocks – cumulatively representing 522 dog stocks and 522 diamond stocks – and have been exposed to an average 16 sectors per year. Figure 9 provides a summary of portfolio size and sector exposure on a ***per annum*** basis; for the sake of completeness we also show the stock and sector counts for 2007.[17]

Figure 9: Number of Stocks Held and Sector Exposure (1996-2007)



Source: Cannon Asset Managers

Turning our attention to annual return performances, over the period 1996 to end 2006, a passive investor who had bought the FINDI would have earned an average annual return of 14.71 percent (including dividends). Usefully, this return represents a gain that is comfortably ahead of the average annual rate of inflation over the period of 7.5 percent. Thus, an investor who remained fully invested for the period would have experienced a real return of a little more than seven percent per year over the 11 years.

By contrast, an active investor who had held the diamond portfolio would have earned a lower rate of return of 11.66 percent ***per annum*** over the same period, which would have produced an annual average real return of just over four percent. However, the result is materially below the passive investment return achieve, and this outcome would have be worsened by the additional costs of trading on the portfolio, negative tax effects and the risks introduced by active involvement.

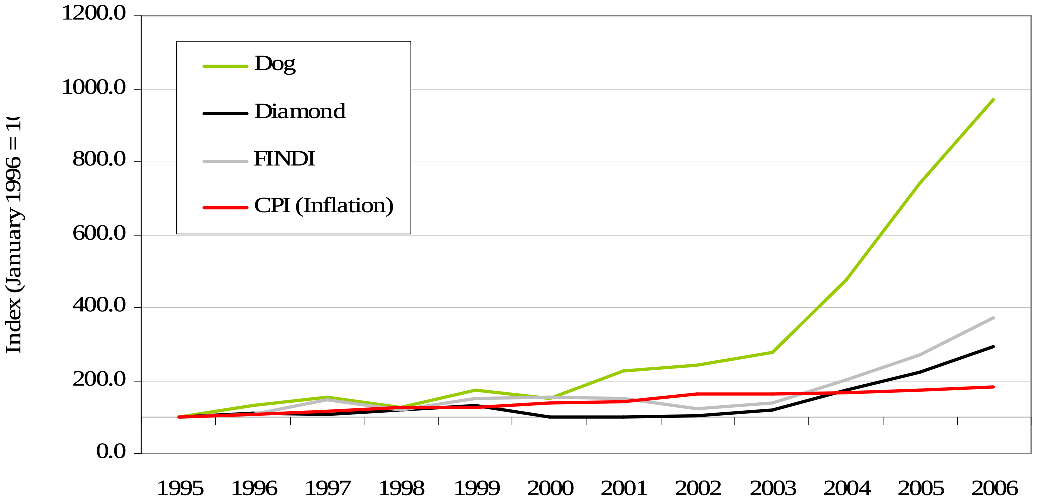
[17] See the appendix for detailed return and risk summaries.

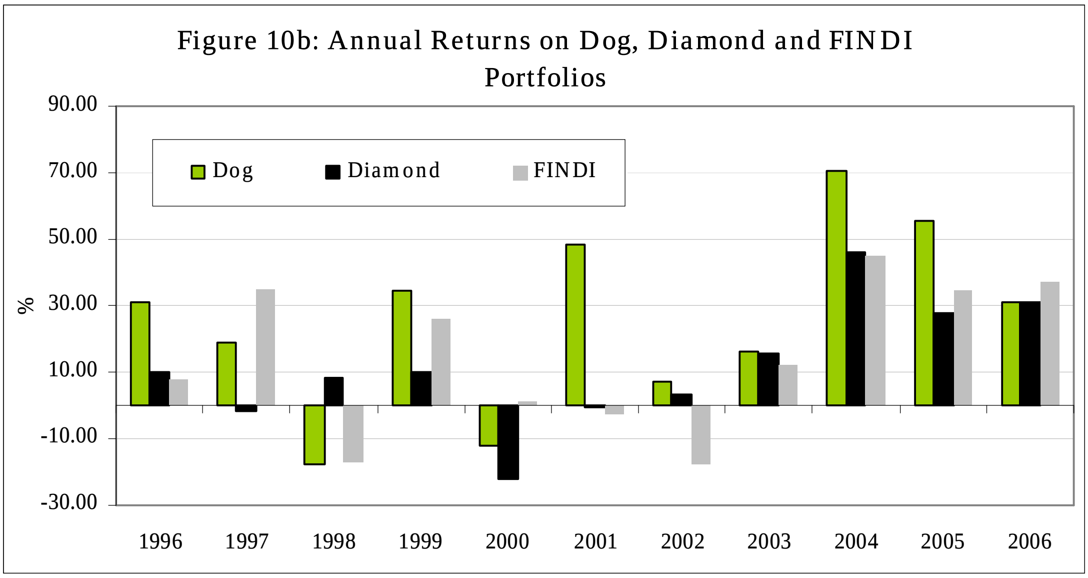
In sharp contrast, the dog portfolios returned an average 25.75 percent ***per annum*** – more than one-and-a-half times the average annual market return and more than double the average annual return earned by the diamond portfolio.

However, the true impacts of annual differences are better assessed by considering the compound effect of the different rates of return. In this regard, on a cumulative basis, over the period the FINDI delivered a compound return of 270.52 percent. In comparison, the cumulative return on the diamond portfolio was 192.89 percent. An investor in the dog portfolio would have experienced a cumulative return of 871.44 percent. The cumulative outcome of the annual results is shown in Figure 10a. Whilst the diamond portfolio has closely tracked the market, delivering marginal underperformance, the dog portfolio has generated material outperformance. Figure 10b shows the year-on-year returns across the two active portfolios and the passive portfolio.

Putting the performance results into Rand terms, an investment of R250 000 in the market over the period 1996 to end 2006 would have grown to a little over R926 000. The same investment in the diamond portfolio would have grown to a less impressive (but still inflation beating) R732 224. Had the same R250 000 been placed in the dog portfolio the value of the portfolio would have risen to almost R2 429 000 by end 2006.

Figure 10a: Cumulative Returns on Dog, Diamond and FINDI Portfolios (1996-2006)





Source: Cannon Asset Managers

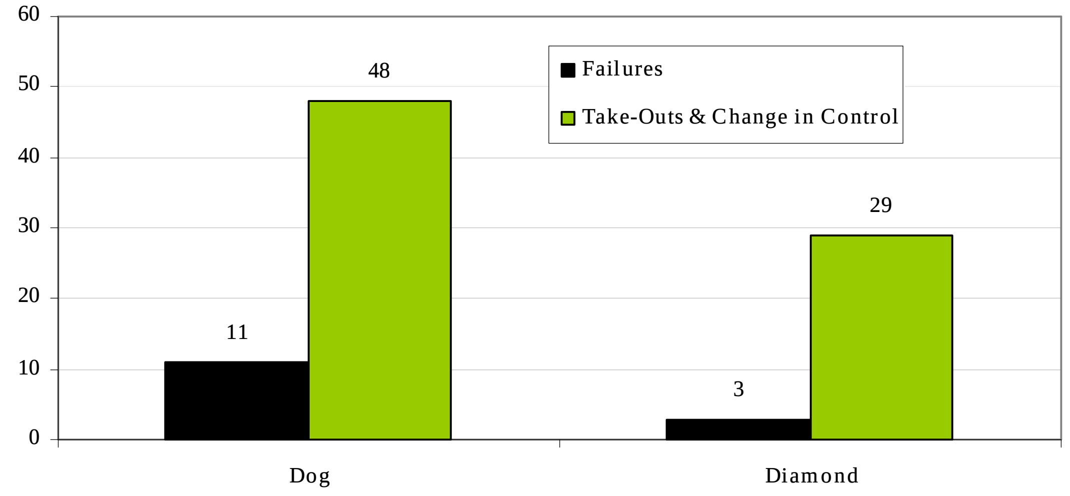
In addition to the substantial outperformance delivered by the dog portfolio, an analysis of risk metrics suggests that this performance has been generated in a favourable fashion. For example, downside analysis shows that the worst years in the dog portfolio were not as bad as elsewhere. Over the 11 years the dog portfolio experienced two negative years. However, the diamond portfolio and the market's passive portfolio each experienced three years of negative returns. To boot, the largest negative return for the FINDI and dog portfolio was -17.6 percent (1998 and 2002, respectively), compared to -22.1 percent for the diamond portfolio.

Downside analysis reveals another interesting result. The average return during the market's three down years was a negative figure of 12.6 percent. Over those periods the diamond portfolio gained 3.6 percent whilst the dog portfolio gained 12.6 percent. So, during down years the dog portfolio outperformed the market by 25.2 percent.

During up years the market has returned an average 24.9 percent, whilst the diamond portfolios gained an average 14.6 percent and the dog portfolios gained an average 30.7 percent, respectively. Thus, during up years the dog portfolio has beaten the market by 5.7 percent and delivered more than double the diamond portfolio. This last result is particularly surprising as one would expect stocks with high price-earnings ratios to perform best in bull-market environments.

Other risk metrics also demonstrate favourable aspects of the dog portfolio. In the dog portfolio 60.1 percent of the 522 stocks held over the 11 years delivered positive year-on-year returns. The figure for the diamond portfolio is 61.3 percent. Of course, given that the dog portfolio is constructed out of neglected stocks, one would imagine that the failure rate amongst this grouping is higher than the diamond stocks. Indeed, this proves to be the case – with 11 of the 522 dog stocks failing compared with just three of the diamond stocks. In both instances, however, these failure rates are statistically insignificant at 2.1 percent and 0.6 percent of total holdings, respectively. Moreover, corporate action suggests that true value lies hidden in the dog portfolio where 48 take-outs and changes in control occurred (9.2 percent of the sample) versus 29 in the case of the diamond portfolio (5.5 percent of the sample) (see Figure 11a). In the case of the dog portfolio, two of the 46 take outs and changes in control occurred in 2006 (Concor and LA Group), the figure for diamond stocks was also two (Venfin and Idion).

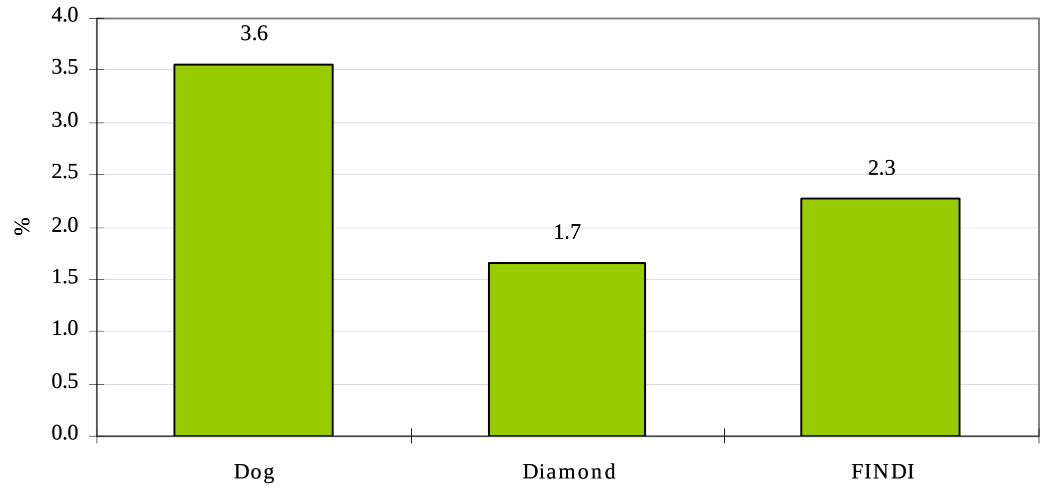
Figure 11a: Corporate Failure and Corporate Action



Source: Cannon Asset Managers

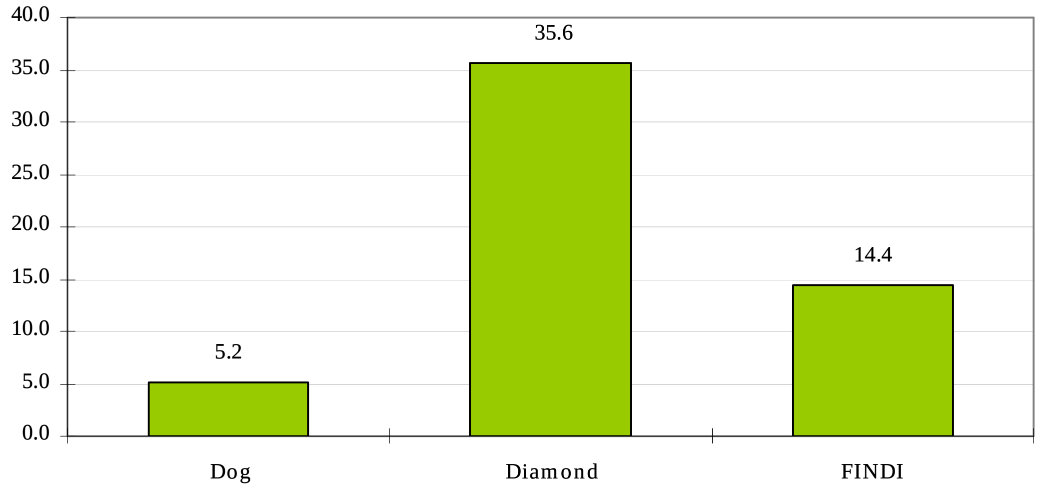
Considering other metrics, it is worthwhile noting that the average dividend yield on the dog portfolio is 3.7 percent over the period, versus 2.3 percent for the market and 1.7 percent for the diamond portfolio. The average price-earnings ratio on the dog portfolio is 4.8 times over the period, versus 14.3 times for the market and 36.5 times for the diamond portfolio (Figures 11b and 11c).

Figure 11b: Dividend Yield Ratios



Source: Cannon Asset Managers

Figure 11c: Price-to-Earnings Ratios



Source: Cannon Asset Managers

As a final consideration of portfolio performance, although the dog portfolio experienced the greatest price volatility of the three portfolios, on a risk-adjusted basis the dog portfolio substantially outperformed the active diamond and passive market portfolios. Specifically, the standard deviation of annual returns on the dog portfolio is 27.1 percent, versus 22.4 percent for the market and 18.4 percent for the diamond portfolio. However, dividing annual average returns by volatility of average annual returns gives a return per unit of risk figure. On this basis, the dog portfolio scores 0.95, compared with 0.63 for the diamond portfolio and 0.66 for the market, respectively.

Based on the return volatility and corporate failure measurements reported, it could be argued that “the market” is right about placing high ratings on the diamond stocks – they carry lower risk than the dog stocks on these scores. However, the results suggest that the market is ultimately wrong in its investment decision: the diamonds do not offer market-beating returns. Over the past decade the dog portfolio has delivered material market outperformance. From this, we are led to the conclusion that if you want to receive a market-beating return, the answer lies in betting against the market by buying hidden or neglected value contained in the dogs. Or, as the father of value investing, Benjamin Graham would have put it, if an investor is to do better than average, his or her investment policies should not be popular. Similarly, an investor who follows the crowd is unlikely to experience even average results (Auxier, 1994).

To take this result to its logical conclusion, the argument begs at least two further questions. First, can this market anomaly be explained? Second, can the anomaly be exploited on an on-going basis or, at some stage, will these abnormal returns disappear?

9. Why Are Dogs Diamonds and Diamonds Dogs?

How much is that doggie in the window?
The one with the waggley tail
How much is that doggie in the window?
I do hope that doggie's for sale

Bob Merrill

Having been presented with the existence of the value effect – and so the absence of an efficient market outcome – the literature of investment finance in recent years has turned its attention to finding explanations for the phenomenon. A detailed review of this literature is beyond the scope of this note, although the material is readily accessible.[18] Rather, here, a brief discussion of the central explanation for the existence – and persistence – of the value phenomenon is provided.

In a word, the value phenomenon is explained by humans' tendency to "overreact". The effect is compounded by the fact that people overreact at the same time – in other words, people "herd". As already alluded to, investors overreact when assessing the merits – and so pricing – of stocks. They tend to become too enthusiastic about the prospect for stocks that are in vogue, pushing prices above rational levels. At the same time, stocks that are considered to have poor prospects become neglected – or in extreme cases "dumped" – so that their ratings and prices drift below fair levels. In short, so-called "winners", or the diamonds in our study, become too expensive. "Losers", or the dogs in our study, become too cheap. When the process of mean reversion sets in, the diamonds drift back to fair value whilst the dogs catch up to fair value. Through this process the dogs not only outperform the diamonds, but beat the market by a wide margin.

Of course, there is nothing in this analysis that suggests the dog portfolio will beat the market every year. Indeed, as the above analysis of the South African equity market shows, the market beat the dog portfolio in four of the 11 years of the study. However, the argument remains that the outperformance established by the dog portfolio more than compensates for the additional risk assumed. To illustrate the point, the dog portfolio would have to lose about 60 percent of its current value for its cumulative performance since 1996 to fall below that of the market.

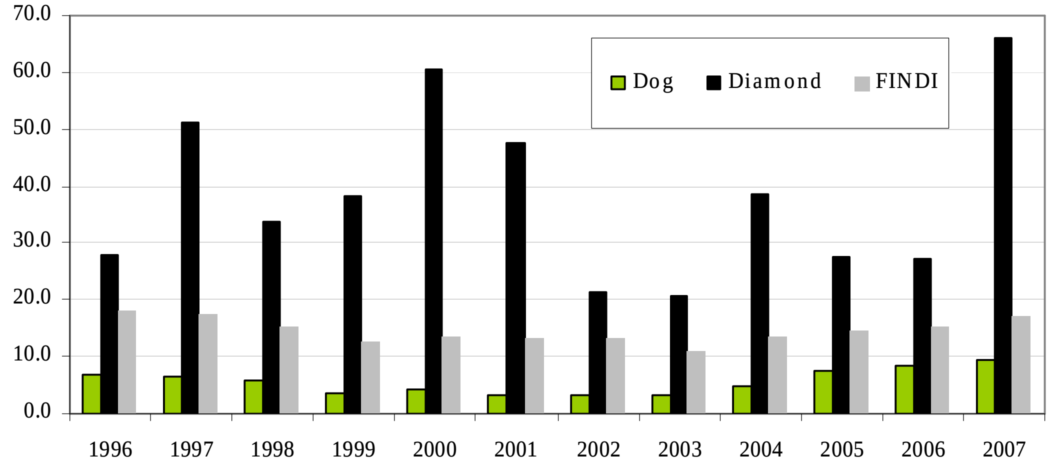
But it is not this last-mentioned cushion that gives us confidence in the value phenomenon and our dog portfolio. Rather, our confidence stems from the fact that "people are people". As long as people are guided by emotion – where rational thought and sensible actions are overruled by raw action – investors will continue to overreact. In turn, the persistence of overreaction ensures that pricing anomalies, such as the value phenomenon, will endure. The potential for the value phenomenon to persist is illustrated by the following anecdote.

[18] See, for example, Nofsinger (2002).

About four years ago, when this study had developed a sufficient record to offer an environment for debate, the results were presented to audiences around the country. In all, about 20 presentations were made. Almost without exception the reaction to the results was disbelief. Perhaps the collective sentiment is best captured by one person in the audience who, after the presentation and upon seeing the portfolio for that year (if memory serves correct it was 2001 when the dogs returned 48.2 percent versus the market's return of -2.9 percent) commented and queried: "The portfolio is full of rubbish. How can that junk beat the market?"[19] This is music to the ears of any value investor.

So, would you consider an investment in the dog portfolio? We show the full dog and diamond portfolios for 2007 in the appendix to this document.[20] Perhaps in arriving at your answer, consider some of the salient features of the portfolio. First, at the start of 2007 the value-based portfolio has an average price-earnings ratio of 9.3 times and a mean price-earnings ratio of 9.3 times. The average and the mean trailing price-earnings ratio for the growth portfolio are 66.2 times and 20.3 times, respectively. The FINDI exhibits a trailing price-earnings ratio that has an average of 17.2 (see Figure 12a).

Figure 12a: Annual Price-to-Earnings Ratio on Dog, Diamond and FINDI Portfolios



Source: Cannon Asset Managers

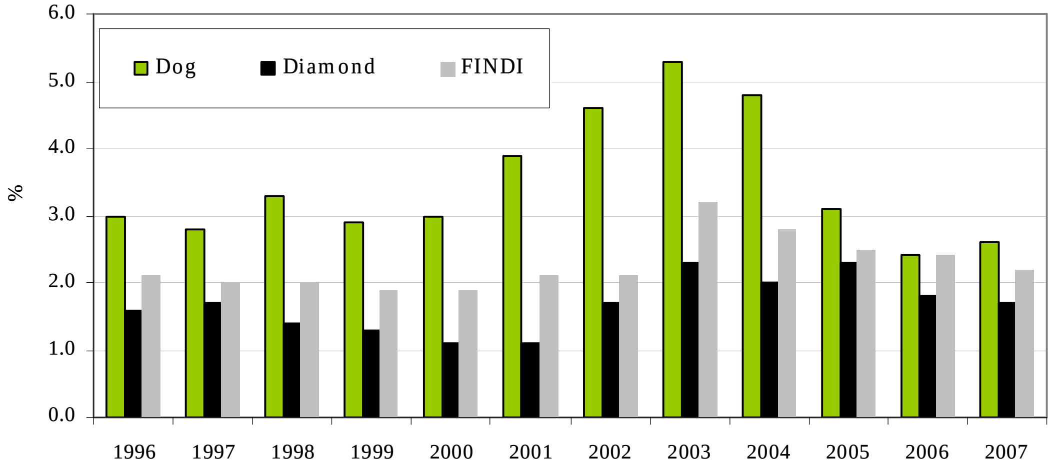
Second, at formation at the start of 2007, the value holdings traded on a dividend yield of 2.6 percent versus the market's 2.2 percent and the growth portfolio's 1.7 percent. Incidentally, the dividend yield on the dog portfolio in 2007 is the second lowest since our study began. Conversely, the dividend yield on the diamond portfolio and market

[19] The reader is reminded that many of the dogs are not small capitalisation stocks or even stocks that have experienced turbulence in their recent financial history. Indeed, many of the dogs are large capitalisation counters with well-established track records, sound management, recognised brands, robust financial conditions and decent prospects. However, circumstance – and investor behaviour – has resulted in them slipping into a state of "investment neglect" or, more simply, undervaluation. Examples in the portfolio for 2007 include Grindrod, Astral, Rainbow, JD Group, ABSA, Standard Bank, Sanlam and Brait, to mention some examples.

[20] The file can be downloaded by following the links at www.cannonassets.co.za/research.asp.

are in a "median range" (see Figure 12b). On the basis of price-earnings ratios, the dog portfolio is trading on the highest multiple recorded in the past 12 years whilst the diamond portfolio also is on the highest multiple recorded since 1996. The market is trading at the top-end of the range recorded since 1996 (see Figure 12a).

Figure 12b: Annual Dividend Yield on Dog, Diamond and FINDI Portfolios



Source: Cannon Asset Managers

On the basis of the above analysis, then, should we expect a bad year from the dogs? On balance, the evidence suggests that the answer to this question is "no" because even in years when ratios have been quite compressed the dog portfolio has recorded healthy returns. For instance, at the start of 2005 the difference between the dividend yield on the dog and diamond portfolios was at its lowest since our study started, and the difference between the price-earnings ratio was equally compressed. Yet, the dog portfolio delivered a return of 55.6 percent, which was twice that generated by the diamond portfolio. Still, if it transpires that the dogs experienced a bad year it is most likely that the dog portfolio's cumulative return still would be substantially ahead of the diamond portfolio and the market (see Figure 10a), and it is firmly our view that investing is a long-term activity where the market inefficiencies explored above ultimately will play out in favour of the value investor. Investing is not done on a one-week, one-month or even one-year horizon. Investing is a stamina-based activity.

As a final observation, it is perhaps equally important to make the point that regardless of what we "think" about the market, no part of the construction of the dog portfolios (or the diamond portfolios, for that matter) has required us to provide forecasts – the results of the past 11 years are all a consequence of already known details. Thus, in assessing the potential of the portfolios, and their performance relative to the market, we are reminded of the pronouncement of British statesman Sir Winston Churchill: "The further back I look, the further forward I can see."

10. Conclusion

Lost in the high street, where the dogs run
Roaming suburban boys
Mother's got a hairdo to be done
She says they're too old for toys
Stood by the bus stop with a felt pen
In this suburban hell
And in the distance a police car
To break the suburban spell

Let's take a ride, and run with the dogs tonight
In suburbia
You can't hide, run with the dogs tonight
In suburbia

Pet Shop Boys, Suburbia

Modern portfolio theory, which has dominated the world of investment finance since the middle of the twentieth century, is underpinned by the arguments of the efficient market hypothesis which holds that assets are priced fairly by the market. Under this thesis, prices react with such speed to news that it is impossible, even for insiders, to beat the market. As such, subscribers to modern portfolio theory argue that active portfolio management is a futile activity. Despite the overwhelming support enjoyed by this school of though, many fund managers and investors devote their efforts to "beating the market". Unfortunately, and unsurprisingly, most fail – and the evidence on this score is convincing.

For this reason, it is commonly concluded that the efficient market hypothesis is a valid proposition and that investors should resign themselves to the fate of matching the market's performance by investing in a passively managed investment portfolio. However, when one peals away the mask of the collective performance of active managers it becomes apparent that not all active managers are destined to underperform the market. Indeed, the evidence, internationally and domestically, shows that active managers traveling in the "value school" are able to consistently beat the market by a material margin. This flies in the face of the efficient market hypothesis. At the simplest level, the argument suggests that, by using "value factors" such as low price-earnings ratios, it is possible for the active value manager to find and act on pricing anomalies and, in so doing, beat the market.

To test this hypothesis, we have used a set of rules to replicate an active management process based on value principles since 1996. For the sake of comparison, the performance of our value portfolio is contrasted to the market's performance, which represents a passive investment approach. We also compare the performance of our portfolio to that of a growth-oriented actively managed portfolio. The results of the study are compelling. Over the sample period 1996-2006 the value portfolio, made up of the market's dogs, has returned more than three times the market's figure and four-and-a-half times that of the growth portfolio, made up of the market's diamonds. In addition, a more detailed analysis shows that the risk adjusted-performance of the dog portfolio is significantly ahead of the market portfolio as well as the growth portfolio. In short, betting on the dogs has proved to be a market-beating strategy.

What is more, the arguments identified in this paper indicate that a value-oriented approach to active portfolio management is sustainable. In essence, the argument suggests that the value phenomenon arises because of peoples' overreaction to investment opportunities. They push the price of "winning" stocks up too high and "losing" stocks down too low. At some point, however, the winners disappoint and the losers surprise, establishing the platform for underperformance by the "winners" and outperformance by the "losers". That this pattern repeats itself year in and year out means that the strategy of investing in stocks that are shunned, ignored or simply forgotten by the market offers to the active investment manager a strategy that is capable of providing sustainable, market-beating opportunities. Added to this is the fact that investors behave in a herd-like fashion so that the majority experience similar investment outcomes. Thus, most active investment managers are beaten by the market as they herd to surround "glamour".

Of course, there is nothing to suggest that this strategy will not "hiccup". Unlike Douglas Adams who told us that the answer to everything is exactly determined – by the number 42 – there is no way of knowing just how irrational the market is being at any moment or whether it will become more irrational before it recaptures sanity. What we can argue however, is that the market is irrational most of the time. This provides active managers, who are willing to bet against the crowd, with the platform needed to "beat the market". The point was made eloquently by Friedrich Nietzsche:

> Most individuals are sane whilst most crowds are not. Crowds regularly behave in a way that the constituents, as individuals, would never countenance. Crowd behaviour is both magnificent and complex, and it is astounding that anyone believes that this type of behaviour should not affect a market (which is another collective).

Putting the point differently, if we have the ability to step away from the crowd and strip emotion out of the investment decision, we have the potential to put together a sustainable, market beating investment approach. Ultimately, however, the ability to adopt value investing as an active management style hinges on discipline, patience and the ability to endure the silence.

Akinjolire, A. and Smit, E.vdM. (2003) South African Unit Trust Performance and Strategy in a Changing Economic climate (1989-2002), ***Investment Analysts Journal***, Vol. 58.

Auxier, A.L. (1994) Happy Birthday, Benjamin Graham: A Century after His Birth, His Legacy Lives On, ***Barron's*** , May 9.

Biger, N. and Page, M.J. (1994) Assessing Portfolio Performance: The Case of Flexible Investment Unit Trusts, ***Journal for Studies in Economics and Econometrics***, 18(3), 27-43.

Black, A., Fraser, P. and Power, D. (1992) UK Unit Trust Performance 1980-1989: A Passive Time Varying Approach, ***Journal of Banking and Finance,*** 16, 1015-1033.

Bodie, Z., Kane, A. and Marcus, A.J. (1991) ***Investments***, Fourth Edition. Irwin McGraw-Hill: Boston.

Chang, C.R. and Lewellen, W.G. (1984) Market Timing and Mutual Fund Investment Performance, ***Journal of Business,*** 57, 57-71.

Chapman, L.A. and Smith, J.duP., (1993) ***An Investigation into the Feasibility of South African Unit Trust Index Funds***. EBM-Research Conference, Pretoria, November.

Clayman, M. (1987) In Search of Excellence: The Investor's Viewpoint, ***Financial Analysts' Journal***, Vol. 43, No. 3, 54-63.

Dreman, D. (1998) ***Contrarian Investment Strategies: The Next Generation***. Simon and Schuster: New York.

Elton, E.J., and Gruber, M.J. (1991) Differential Information and Timing Ability, ***Journal of Banking and Finance,*** 15, 117-131.

Fama, E. and French, K.R. (1998) Value versus Growth: The International Evidence, ***Journal of Finance***, Vol. 53, 1975–1999.

Francis, J.C. and Ibbotson, R. (2002) ***Investments: A Global Perspective***. Prentice Hall: Upper Saddle River, New Jersey.

Graham, B. (2003) ***The Intelligent Investor***. Harper: New York.

Greenblatt, J. (2006) ***The Little Book that Beats the Market***. John Wiley: Hoboken, New Jersey.

Grinblatt, M. and Titman, S. (1993) Performance Measurement without Benchmarks: An Examination of Mutual Fund Returns, ***Journal of Business***, 66, 47-68.

Hendricksson, R.D. (1984) Market Timing and Mutual Fund Performance: An Empirical Investigation, ***Journal of Business***, 57, 73-96.

Jegadeesh, N. and Titman, S. (1993) Returns to Buying Winners and Selling Losers: Implication for Stock Market Efficiency, ***Journal of Finance***, Vol. 48 No. 1, 65-91.

Jensen, M.C. (1968) The Performance of Mutual Funds in the Period 1945-1964, ***Journal of Finance***, 23, 384-416.

——————— (1972). Optimal Utilization of Market Forecasts and the Evaluation of Investment Portfolio Performance, in G. Szego and K. Shell (eds.), ***Mathematical Methods in Investment and Finance***. North Holland: Amsterdam.

Knight, E.T. and Firer, C. (1989) The Performance of SA Unit Trusts: 1977-1986, ***South African Journal of Economics***, 57, 52-69.

Kon, S.J. and Jen, F.C. (1979) The Investment Performance of Mutual Funds: An Empirical Investigation of Timing, Selectivity, and Market Efficiency, ***Journal of Business***, 52, 263-289.

La Porta, R., Lakonishok, J., Shleifer, A. and Vishny, R. (1997) Good News for Value Stocks: Further Evidence on Market Efficiency, ***Journal of Finance***, Vol. 52, 859–874.

Lakonishok, J., Shleifer, A. and Vishny, R. (1994) Contrarian Investment, Extrapolation and Risk, ***Journal of Finance***, Vol. 49, 1541–1578.

Lee, C. and Rahman, S. (1990) Market Timing, Selectivity and Mutual Fund Performance: An Empirical Study, ***Journal of Business***, 63, 261-278.

Lintner, J. and Glauber, R. (1967) Higgledy-Piggledy Growth in America, paper presented at Analysis of Security Prices semina, University of Chicago, reprinted (1978) in J. Lorie and R. Brealey (eds) ***Modern Developments in Investment Management***, 2nd edition. The Dryden Press: Hinsdale, Illinois, pp. 594–611.

Little, I.M.D. (1962) Higgledy Piggledy Growth, ***Oxford Bulletin of Statistics***, Vol. 24 No. 4, 387-412.

Malkiel, B.G. (1999) ***A Random Walk Down Wall Street***. Norton: New York.

Markowitz, H. (1952) Portfolio Selection, ***Journal of Finance***, March.

Nofsinger, J.R. (2002) ***The Psychology of Investing***. Prentice Hall: New Jersey.

Oldfield, C.E. and Page, M.J. (1996) Assessing Portfolio Performance: The Case of South African Unit Trusts, ***Investment Analysts Journal***, Vol. 44. Summer 1996/97.

Peters, T.J. and Waterman, R.H (1984) ***In Search of Excellence: Lessons from America's Best-Run Companies***. Harper and Row: New York.

Sharpe, W.F. (1991) The Arithmetic of Active Management, ***The Financial Analysts' Journal***, Vol. 47(1), pp. 7-9.

Smith, J.duP. and Van der Merwe, A.J. (1999) Are Today's Winning Institutions Tomorrow's Losers? ***Investment Analysts Journal***, Vol. 49(4).

Smith, J.duP. and Chapman, L.A. (1994) ***The Timing and Selection Ability of South African Unit Trust Portfolio Managers***. Third Annual Conference of the Southern African Finance Association, February.

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