An Initial Analysis of South African Mutual Fund Expenses

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By

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Abstract

The following research aims to collect and collate a set of data relating to characteristics of mutual funds within the South African Mutual Fund Industry, with a specific focus on expenses. In addition, this research aims to investigate certain relationships within the industry, again keeping a specific focus on expenses. The key data used in the analysis include South African Mutual Fund Total Expense Ratios, Net Asset Values and Annualised Returns as well as mean Total Expense Ratios for other countries. The research finds that there exists no relationship between fund performance and expenses within the South African Mutual Fund Industry and that South African mutual funds exhibit significantly higher expenses than those of developed nations.

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1. Introduction

The following research is an introductory study of fees and expenses within the South African mutual fund industry and a comparison of South African fees and expenses charged by mutual funds with those on a global stage. The study is an attempt to gather data and facts within the industry and perform a preliminary analysis thereof. The aim of this research is to collect and collate data relevant to the South African mutual fund industry. More succinctly, this study provides an in depth analysis of expenses charged in relation to the performance of South African mutual funds.

This research presents data for a large proportion of South African mutual funds gathered at the end of December 2009. The initial analysis presents descriptive statistics and certain basic statistics in order to enhance the understanding of the South African mutual fund industry as well as to highlight certain relationships which exist and indicate areas where further research may be necessary in order to highlight the existence or non-existence of certain relationships. Within the section entitled *Descriptive Statistics,* the following are investigated at a high level.

- The difference in mean Total Expense Ratios (TER) between funds which are compliant with Regulation 28 of the Pension Funds Act and those which are not.
- The difference in mean TER's between funds for which management remuneration has a performance related component.
- The difference between TER's for funds of funds and traditional mutual funds which are not composed of other mutual funds.
- The differences between mean TER's across the Equity, Fixed Income and Balanced fund classifications within the South African mutual fund industry.

- The difference between mean TER's of South African mutual funds which invest in only domestic assets and those which invest in foreign assets.
- The correlation between management company size and TER.
- The relationship between fund net asset value and TER.
- The relationship between fund dividend yields and TER's.
- The relationship between fund volatility and TER's.
- The difference between the mean TER of funds which charge a load and those which do not.
- Descriptive statistics for TER's of the South African mutual fund industry as a whole.
- The relationship between TER's and the number of units into which funds are divided.

The section which follows the descriptive statistics and basic relationships investigates certain items in more depth. The following are the areas investigated in the section entitled *Results*:

- South African TER's are compared to those internationally using data from previous international studies;

- South African TER's are compared to those internationally using new data collected for this research;

- Economies of scale are investigated within the South African mutual fund industry at both an individual fund level and at the management company level; and

- The correlation between fund performance and TER's is investigated in order to determine whether higher fees are justified by superior fund performance.

This paper continues to discuss certain prior research on the topic of mutual fund expenses. The core of the literature review focuses on areas mentioned above into which detailed analysis has been performed as well as presenting ancillary literature which has been used in order to aid understanding of the subject. After the literature review is a section detailing the method of data collection and how those data were collated followed by a description of the methodology employed in order to examine the collected data. Descriptive statistics and a basic analysis are then included before moving onto the section which describes the results of the detailed analysis performed on the data. The paper concludes based on the results obtained from the research performed. A final section of appendices is included. These appendices include the data utilised for the performance of this analysis as well as certain tables not included in the main body of the paper.

2. Literature Review

The majority of research relating to mutual fund expenses has been performed in the United States and Europe, with little research having been performed in South Africa. The growth in the mutual fund industry has caused the need for extensive research. Laderman and Smith (1993) indicate that the U.S. mutual fund industry assets grew from less than US$50 billion in 1977 to US$1.6 trillion in early 1993. French (2008) states that individuals held 27.9 percent of the U.S. equity market in 1980. This compares to 21.5 percent in 2007. French (2008) also notes that holdings in open-end mutual funds increased from 4.6 percent in 1980 to 32.4 percent in 2007. Low (2008) reports that the Malaysian mutual fund industry grew by 180 percent between 2000 and 2006.

2.1 The South African Mutual Fund Industry

In South Africa, mutual funds are classified according to their mandate, which is approved by the Association of Savings and Investment. The investment mandate is a definitive document reflecting the portfolio's main characteristics and a signed commitment of both the CIS manager and asset manager. It must be lodged with ASISA, is a public document and is available to any interested party (www.asisa.co.za). The mandate deals with the performance benchmark, the investable universe and the mutual fund classification.

According to the Association of Savings and Investment, the correct classification of funds is important to achieve the following objectives:

a) promote investor awareness and understanding of the various fund types;
b) assist investors in selecting funds;
c) facilitate the comparison of funds both across and within categories;
d) facilitate the analysis of different types of funds.

(www.asisa.co.za)

Meyer-Pretorius and Wolmerans (2006) investigate the characteristics of the South African mutual fund industry during the period 1965 to 2005. Their research reports the following:

- Over this period, the industry grew from a single fund in 1965 to a total of 567 funds in 2005 and was worth a total of R345 billion in 2005.
- Their study finds that South Africa ranked 22nd out of 41 countries in terms of the dollar value of the industry.
- The South African mutual fund industry displayed a compound annual growth rate of 40 percent per annum over the period of their study, compared to a rate of only 14 percent for the economy overall. This result indicates the increasing demand for mutual funds as an investment product in South Africa.
- They also note that the increase in the value of mutual funds is not so much a function of outstanding returns earned, but rather the popularity of funds causing large inflows of investment capital.
- The bulk of South African mutual funds (49 percent of asset values) were invested in equities, while 18 percent was invested in bonds and 33 percent invested in money market instruments.
- Until the early 1980's, international diversification in South Africa was severely restricted.
- South African unit trusts only held 4.81 percent of corporate equity in 2005 which was significantly lower compared to the U.S where approximately 25 percent of corporate equity is held by mutual funds.
- The study also finds that by June 2005, 114 out of the 567 South African unit trusts were institutional unit trusts as opposed to retail unit trusts.
- The average investor in a mutual fund held their investment for a mere 30 months between 1998 and 2004.
- The strategy of mutual fund managers in South Africa has moved away from long term investment to a more aggressive, short-term strategy. Significantly higher portfolio turnover is what caused the authors to come

to this conclusion. The effect of sales loads on investors is increased under this strategy as a result of cash being invested in funds for a shorter period.

By December 2009, the number of funds registered with the Association of Savings and Investment of South Africa had grown to 907, an increase of 60 percent on the 2005 figures. A survey of financial intermediaries was performed by the Association for Savings and Investment SA (ASISA) during late 2008. The respondents to the survey noted that areas in which more information was needed included exchange traded funds, total expense ratios and property unit trusts. The survey asked intermediaries what the most important factors for clients' switching of funds were. The top 5 factors did not include anything to do with fees paid on funds, which highlights South African investors' apparent ignorance in this area. Only a small proportion of the intermediaries noted that clients were querying fees more.

2.2 Measurement of Mutual Fund Performance

There have been many studies performed which have attempted to develop a measure of fund performance that not only makes sense to use but also yields consistent results. Different measures have been found to yield contradictory conclusions regarding performance of funds even when the same set of data is used. The two key components of measuring the performance of a fund are:

1. Defining the benchmark to which the absolute performance of the fund is compared; and
2. Defining a measure of risk for that fund in order to balance a risk-return trade-off when comparing funds across different spheres with different mandates and characteristics.

There seems to be little consensus as to what the correct measures to use for benchmarks or risk are. Another issue arising with the use of benchmarks is the fact that the usual indices used do not include the fees, expenses and trading costs associated with mutual funds, and as such tend to over-estimate returns (Daniel et al (1997)). Benchmarks may also not correct for fund return anomalies which arise such as the size, book-to-market and momentum effects (Daniel et al (1997)).

One of the earlier studies in the area of mutual fund performance measures was performed by Sharpe (1966). In this study, Sharpe states that the key element in the portfolio analyst's view of the world is his emphasis on both expected return and risk. Investopedia explains the Sharpe ratio as follows:

> The Sharpe ratio is calculated by subtracting the risk-free rate - such as that of the 10-year U.S. Treasury bond - from the rate of return for a portfolio and dividing the result by the standard deviation of the portfolio returns. The Sharpe ratio formula is:

$$= \frac{\bar{r}_p - r_f}{\sigma_p}$$

Where:

$\bar{r}_p$ = Expected porfolio return

r_f = Risk free rate

σ_p = Portfolio standard deviation

> The Sharpe ratio tells us whether a portfolio's returns are due to smart investment decisions or a result of excess risk. This measurement is very useful because although one portfolio or fund can reap higher returns than its peers, it is only a good investment if those higher returns do not come with too much additional risk. The greater a portfolio's Sharpe ratio, the better its risk-adjusted performance has been. A negative Sharpe ratio indicates that a risk-less asset would perform better than the security being analyzed.

He notes that the portfolio analyst must match these elements to the preferences of the investor. Thus, the job of the portfolio analyst is to create a set of efficient portfolios for which, at any given level of risk, the expected return is maximized. The investor's task is then to make a selection out of these efficient portfolios based on their appetite for risk. Sharpe then goes on to define the benchmark against which one should measure the performance of a particular fund as the riskless interest rate. Sharpe uses the fund's standard deviation as the measure of risk associated with that fund. From this, the measure used to test the performance of a mutual fund becomes the excess return of that fund for a given period over the risk-free rate divided by the standard deviation of the fund for that period. Sharpe finds that there is a reasonable amount of consistency between periods in variability of returns. However, a number of major shifts do appear. He postulates that these shifts could be due to announced changes in management philosophy (Sharpe (1966)). He concludes that whatever the reason, the prevalence of these shifts in the sample used is likely to disappoint investors.

As the Sharpe ratio accounts for total risk, it is relevant when measuring the performance of mutual funds which are not well diversified as well as measuring the performance of a mutual fund which makes up the total portfolio of assets held by an individual.

Treynor's work on mutual fund performance measurement is based on a similar idea of reward to risk. However, he uses volatility of mutual fund returns with respect to the market in general as a measure of risk as opposed to making use of total variability in fund returns. Stated differently, the fund standard deviation is discarded as a measure of risk in the Treynor index and rather the Beta of the fund with respect to the market is used as a risk measure. The Treynor index therefore becomes:

$$T = (R_i - R_m)/\beta_i$$

Where:

- R_i is the return on a specific fund for a given time period.
- R_m is the return on the market for that same time period.
- B_i is the Beta of that stock with respect to the market.

A problem arising with this measurement of performance lies in the definition of the market. Another problem is the definition of the intervals over which to measure returns and Beta for that fund. The Treynor index also fails to capture the portion of variability in the fund returns which is due to a lack of diversification (Sharpe (1966)). Sharpe also mentions that, if funds are well diversified, the major discrepancies between the variability of returns and that portion due to the movements in the market are likely to be transitory effects (Sharpe (1966)). By concentrating on the systematic part of the fund's variability, one can avoid paying attention to these transitory effects and become more concerned with permanent relationships (Sharpe (1966)). Due to the fact that the Treynor measure only accounts for systematic risk, it is an appropriate measure of performance for a well diversified mutual fund as well as being the relevant performance measure for a mutual find which only constitutes a portion of the investor's portfolio.

Typically, an investor will have returns over a specified past period per fund to investigate when researching funds in which to put their money. These are often returns over the prior 1 year, 3 year and 5 year periods. Morey and Morey (1999) note that investors in the U.S. are generally left to their own devices when determining which time period is the most pertinent for their appraisal of the universe of funds in which they plan to invest. There seems to be little consensus on this issue, and different mutual fund rating services use differing criteria in order to determine the importance of the time period over which performance is most important. However, there is strong evidence to suggest that more emphasis should be placed on the longer term returns as they are less susceptible to short-term market fluctuations and indicate consistency. Therefore,

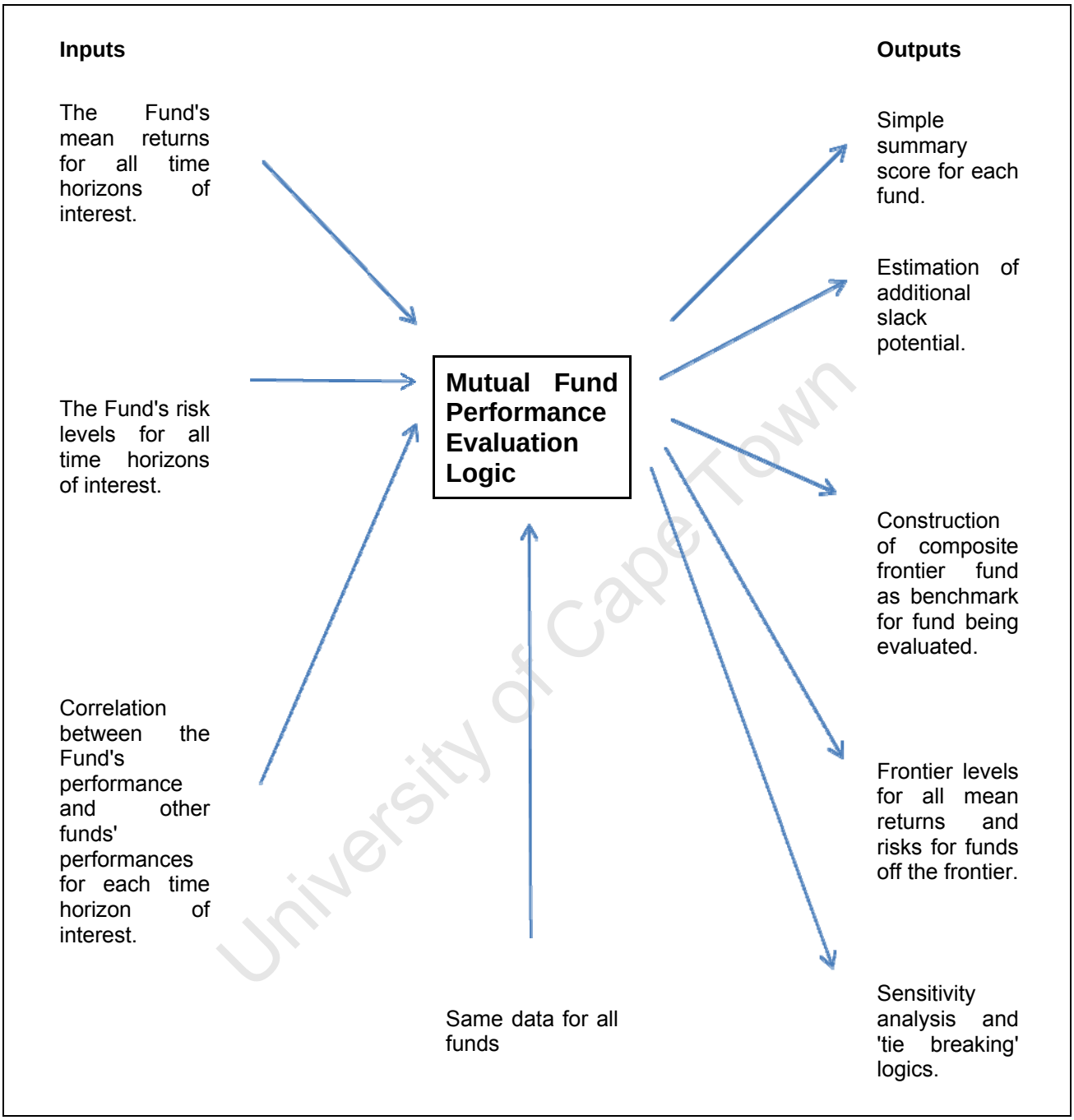
a fund which has performed poorly over the recent year can still be highly rated if its longer term performance has been good. It would seem that the best possible way to deal with the problem of performance of mutual funds over different time horizons would be to assign a weighted summary score to each fund based on the different performances over different time horizons available. This is effectively what is done by Morey and Morey (1999). Morey and Morey (1999) then continue to use consistent inputs for risk and reward in order to construct an efficient frontier of funds based on the performances, risk levels and correlations between funds over time horizons of interest. They then suggest that using this approach in order to rank funds so that the investor is able to judge which funds are superior, by being either on the constructed benchmark frontier or closer to it than other funds. This approach is similar to the use of an efficient frontier for individual securities. This is one possible way of moving toward solving the problem of determining an effective benchmark against which to compare fund performance. The fund which has performed better will be closer to the efficient frontier than a competing fund which has exhibited inferior performance. However, it does not completely solve the problem of using incorrect or inefficient benchmarks.

This approach has the problem of subjectivity. The weighting of performance over time horizons is subject to judgement and different weights are likely to cause different results in terms of fund rankings. As an example, let us assume that we have two funds, A and B. Also assume that we have only two time horizons over which performance is measured, 1 year and 5 years. Fund A performed well over the previous 1 year period and poorly over the previous 5 year period. Fund B had the opposite characteristics, however, performing poorly over the previous one year and well over the previous years. Assigning a greater weight to the 5 year period when calculating the frontier against which to rank fund performance is likely to rank Fund B higher than fund A. However, assigning a greater weight to the one year period is likely to rank fund A higher than fund B.

Thus, this method still does not solve the investor's problem of which period is more important.

The implication for research using this method is that results are dependent upon weightings assigned to different time horizons and as such could yield inconsistent results for mutual fund performance if different weightings are assigned to different horizons in different studies. What is needed is consistency. The model is illustrated on the following page in Figure 1.

Figure 1



Morey and Morey (1999), pp 4

A further problem with this method of evaluation is the fact that it only takes into account total risk, as opposed to being systematic risk based. The issues relating to this have already been discussed. This approach also requires a huge amount of data in order to be effective.

Another method in which one can measure mutual fund performance is to take a Capital Asset Pricing Model (CAPM) approach. Investopedia explains the Capital Asset Pricing Model as follows:

> The Capital Asset Pricing Model (CAPM) is a model that describes the relationship between risk and expected return and that is used in the pricing of risky securities.
>
> $$\bar{r_a} = r_f + \beta_a(\bar{r_m} - r_f)$$
>
> Where:
> r_f = Risk free rate
> β_a = Beta of the security
> $\bar{r_m}$ = Expected market return
>
> The general idea behind CAPM is that investors need to be compensated in two ways: time value of money and risk. The time value of money is represented by the risk-free (rf) rate in the formula and compensates the investors for placing money in any investment over a period of time. The other half of the formula represents risk and calculates the amount of compensation the investor needs for taking on additional risk. This is calculated by taking a risk measure (beta) that compares the returns of the asset to the market over a period of time and to the market premium (Rm-rf).

This would be done by calculating a security market line and separating out the portion of performance related to factors such as the return on the market. Certain studies use a simple one factor approach whereas other studies go further to use other factors in the study in order to separate out the fund specific abnormal returns. Other factors included would be items such as the size of the fund. Thus, performance of the fund is regressed against the chosen independent variables, the alpha in the model represents the abnormal return of the fund for the given time period. This methodology was originally adopted by

Jensen and as such this measure is commonly referred to as Jensen's alpha. Jensen's alpha can be used in order to rank the performance of mutual funds within a corresponding category or having a similar classification. Kothari and Warner (1997) note that "the estimated alphas, or regression intercepts, can be systematically nonzero and are highly sensitive to index choice. If fund managers have market timing ability, they will shift portfolios into high beta assets when market returns are expected to be high and into low beta assets when market returns are expected to be low." Due to this, the non-stationarity in beta will systematically bias downward the Jensen Alpha (Jensen (1968)). Kothari and Warner (1997) find strong evidence in the U.S. of market timing ability within the data used for their 1997 research. This poses yet another problem for the use of the Jensen alpha.

When calculating performance of funds, several variables have been identified as being related to fund performance and have thus been used as independent variables in models calculating Jensen's alpha. These variables include fund dividend yields, book-to-market ratios, long-term yields on government bonds, term premiums and yield premiums (Kothari and Warner (1997)).

The appraisal ratio is another form of reward-to-risk ratio and is calculated by taking the fund alpha and dividing it by the standard deviation of that fund. An advantage of this approach is that it takes into account both the systematic and non-systematic portions of risk relating to a specific fund. In calculating the portfolio alpha, the systematic risk is separated out through the calculation of the fund beta and alpha. Thus, when working with the appraisal ratio, one is using a fund specific abnormal performance in conjunction with a fund specific measure of risk.

The Fama and French (1993) three factor alpha is an extension of the alpha developed by Jensen. The model regresses certain independent variables against fund performance in order to estimate alpha. The model is as follows:

$$(R_{Pt} - R_{ft}) = \alpha_P + \beta_{P1}(R_{Mt} - R_{ft}) + \beta_{P2}HML_t + \beta_{P2}SMB_t + \varepsilon_{Pt}$$

Where HML_t and SMB_t are book-to-market and size factor returns. HML_t is the high-minus-low book-to-market portfolio return in month t and SMB_t is the small-minus-big size portfolio return in month t (Kothari and Warner (1997)). $R_{Mt} - R_{ft}$ represents the excess return of the market over the risk-free rate over a given period. $(R_{Pt} - R_{ft})$ represents the excess return of a given fund over the risk-free rate over a given period.

Kothari and Warner (1997) conclude that it is easy to detect abnormal fund performance and market timing ability where none exists. They find, through using a range of performance measures to evaluate fund performance, that different measures yield a large range of results even when performance is ordinary. Their results indicate that procedures based on the Fama and French three factor model are somewhat better than CAPM based measures.

Another measurement of fund performance is known as the Event Study measure, which was initially developed by Grinblatt and Titman (1993). This measure calculates the difference between the returns on assets when they are included in the portfolio (known as the event period) and the returns on those same assets at later dates (known as the comparison period). If informed investors actually exist, and are able to beat the market, the returns on the assets while included in the portfolio should be higher than when they are excluded from the portfolio. This is as one would expect that they are then out of favour with informed investors. Grinblatt and Titman (1993) use future returns on portfolio assets for the comparison period as opposed to prior returns as many investors use prior returns as criteria when picking assets to include in their portfolio. A problem with this method is that it forces the evaluator to ignore returns on assets during the comparison period (Grinblatt and Titman (1993)). Also, if a portfolio includes assets of firms which are going, or close to, bankrupt,

there are likely to be no comparison period returns to which to compare returns during the event period. “The event study measure provides an estimate of the sum of the time-series covariances between the portfolio weights and the subsequent returns of each asset included in the evaluated portfolio. This sum represents an intuitive measure of performance since it equals the difference between the realized return of the managed portfolio and its expected return conditioned on the portfolio manager being uninformed” (Grinblatt and Titman, 1993). Grinblatt and Titman (1993) find positive performance in the U.S., on average, with the aggressive growth and growth funds performing the best when using the event study measure. This is in line with their earlier findings on mutual fund performance. They also find that, although not all managers are able to exhibit superior performance, those who do are able to do so persistently.

Daniel et al (1997) attempt to address the issues relating to benchmarking by creating a new measure of performance which attempts to form benchmarks that match the characteristics of the component stocks of the portfolio being evaluated. They believe that “characteristic matching does a superior job of matching future realized returns, meaning that the average fraction of the variance of the fund returns explained by the benchmark is higher and the standard error of estimate of the fund’s abnormal performance is lower” Daniel et al (1997). The approach which they use also allows them to decompose the returns of the funds into Average Style, Characteristic Sensitivity and Characteristic Timing. These three measures summed together would give the total estimated return of the fund. Through decomposing fund returns in this way, it is easier to determine how funds are actually generating returns. This approach to fund performance evaluation does not explicitly take into account the relationship between risk and return, which is the basis for most other measure of fund performance. The model used by Daniel et al (1997) also assumes that the expected returns of the funds do not change systematically over time. Using this basis for measurement of performance, Daniel at al (1997) come to the conclusion that simple, mechanical portfolio strategies can be implemented at

substantially lower cost than the more active and subjective strategies used by most mutual funds. Because of this, actively managed funds may be wasting their resources as they seem to be failing to beat the more passively managed funds.

Two other measures of performance of mutual funds exist, being the Sortino ratio and tracking error. The Sortino ratio is calculated similarly to the Sharpe ratio, although the risk-free rate is replaced by a minimum acceptable return. Tracking error is calculated as the standard deviation of the difference between the return on the mutual fund and the relevant benchmark. This measure is used in order to analyse mutual funds which risk profiles which are similar to those of the relevant benchmarks, but then deviate from the given benchmark in an attempt to add value.

2.3 The Variation of Fund Fees across Borders

Franks et al (1998) compare costs of investment management across three different countries and find that costs in the United Kingdom are twice as high as those in the United States and four times as high as in France. Khorana et al (2007) perform an international study of mutual fund fees. They attempt to explain the variation of fund expenses across borders due to factors such as varying regulation and supply and demand. Their sample indicates that for each country in which a fund is registered, fees rise by 1.7 to 2.5 basis points. This suggests that the benefits of buying a foreign fund decrease when the fund is registered in more than a few countries. Khorana et al (2007) postulate that larger markets may lead to increased fee based competition. However, their research sample indicates that this is not the case. Their data show that there exists a positive relationship between market size and total expense ratios. Onshore foreign funds remain less expensive than domestic funds (Khorana et al (2007)). The study further hypothesises that offshore locations may effectively charge shareholders for the privilege of tax minimization. Khorana et al (2007) find that funds which are sold in highly taxed countries do indeed exhibit higher

expenses. With respect to the effect of experience on fund fees, Khorana et al (2007) find that fees are lower when the fund industry in the domicile country is older. They note that "this is consistent with the notion that cumulative experience leads to lower costs or greater investor sophistication, and is therefore associated with lower fees due to a more competitive environment" (Khorana et al (1997)). Another finding in their study is that management fees are higher when the banking fund classification is more concentrated. They believe that this could be due to the fact that distribution costs are lower for banks. Other conclusions drawn from their study include the findings that fees are lower for larger funds and fund families, index funds, funds of funds and guaranteed funds. Cross-border fund sales are found to be economically large and related to fees and all types of fees are lower for onshore funds sold across borders (Khorana et al (2007)). The paper also finds that greater investor protection is related to lower fees. However, the authors believe that it is difficult to explain how this relationship works.

2.4 Economies of Scale Exhibited by Mutual Funds

The results obtained by Dellva and Olson (1998) indicate that larger funds in the U.S. experience operating efficiencies which are passed on to investors through lower costs. However, they also find that the economies of scale experienced by funds with regulation 12b-1 plans are not passed on to investors. Regulation 12b-1 funds are those funds as defined on page 32 of this paper. Ferris and Chance (1987) study the effect of regulation 12b-1 plans on U.S. mutual fund expense ratios. Their research indicates that regulation 12b-1 related expenses are simply a dead weight cost to investors. The study shows that the existence of a 12b-1 plan increased expenses between 0.083 and 0.085 percent of net assets. Latzko (1999) studied the existence of economies of scale in U.S. mutual funds and found that the average fund did not experience economies of scale. Koreamaki and Smythe (2004) find that larger Finnish mutual funds did not exhibit economies of scale. Latzko (2003), in the U.S., and Korpela and Puttonen

(2005), in Finland, showed that “average funds belonging to a larger management company did not charge lower expenses due to economies of scale at the management company level.” Low (2008) finds that larger funds in Malaysia and funds which are part of larger fund families in Malaysia both experience lower expense ratios. This shows evidence of economies of scale and economies of scope.

Low (2008) finds that aggressive funds in Malaysia tend to be larger funds. Khorana et al (2007) find that funds globally requiring a higher minimum initial investment generally have lower costs. They believe that this is consistent with the idea that fees are driven by average account size. Gao and Livingston (2008) also note that observed economies of scale are mainly driven by the smallest one third of funds in the U.S. and that larger funds exhibit minimal economies of scale. In their sample, they include all actively managed domestic equity funds in the U.S., the data for which were downloaded from the SEC’s EDGAR website for the period from 1996 to 2004. Barber et al (2005) find that “the greater market share enjoyed by low expense mutual funds in the U.S. is not a result of new money flowing into these funds.” They find that “growth leads to lower expenses for funds.” As such, they conclude that “it is new money and strong returns that lead to lower expenses as opposed to lower expenses leading to high fund growth.”

Sirri and Tufano (1998) indicate that when management fees are a function of fund size, fund complexes have a payout structure that resembles a call option. When returns are high, funds gain assets and total fee revenue rises. However, when relative returns are very low, the losses of assets are far more modest. Funds can exploit this option-like payoff through increasing their return volatility and hoping for an extraordinary return.

Sirri and Tufano (1998) investigate the determinants of mutual fund flows in the U.S. They find that mutual fund consumers tend to focus on prior returns when

selecting funds, flocking towards funds with the highest recent returns, yet they fail to flee from funds with poor recent returns. Their study also shows that consumers are fee sensitive in that funds exhibiting lower fees and funds which reduce their fees tend to grow faster than funds exhibiting high fees. Their data show "a negative relationship between fees charged and flows, *ceteris paribus,* which is reflective of consumers' elasticity of demand with respect to the price of investment management services." (Sirri and Tufano (1998), pp 5) Fee increases are found not to be related to fund flows whereas fee decreases are. As fees are decreased, more assets flow into the fund. Sirri and Tufano (1998) hypothesize that the possible reason why flows are not significantly related to increases in fees is the existence of substantial search costs. They predict that consumers would purchase those funds that are easier and less costly for them to identify. This would offer an explanation as to why such a large proportion of fund expense ratios consist of marketing expenditure.

2.5 The relationship between fund size and performance

When testing the relationship between performance and expense ratios, it is important to separate out other factors which may be having an influence on the expense ratio of a fund. It has already been noted that there are significant economies of scale evident within the mutual fund industry, but only up to a certain point. As noted by Gao and Livingston (2008), the existence of economies of scale appears to be driven by smaller funds. The next step is to discuss whether or not there exists a relationship between a fund's size and the performance of that particular fund.

Chen et al (2004) study whether fund size erodes the performance of that particular fund traded in the U.S mutual fund industry. They discuss the fact that there is a trade-off between taking advantage of economies of scale as a fund grows larger and the fact that the fund loses agility as it grows. A smaller fund is more able to sell its holding off in a particular security quickly due to the fact that

that holding is small. However, a larger fund is likely to have problems finding enough buyers in the market in order to sell its holding in a particular security. Fund managers also have the incentive to grow a fund if their compensation is linked to assets under management. Yet another obstacle facing larger funds is the fact that their universe of possible investments relative to their resources which they need to invest becomes smaller and they may therefore make sub-optimal investments merely because they are unable to find sufficient good investments. This may not be in investors' best interests.

There are advantages to being a large fund, however. These include, among other things, more resources available for research. A small fund could also allocate too large an amount of resources to a particular security due to the fact that resources are limited to a greater extent than those of a large fund. Hong et al. (2000) mention that the vast majority of stocks with small market capitalizations in the U.S. are not included in mutual fund portfolios.

Chen et al (2004) research the relationship between fund size and performance, and come to the following conclusions:

- There exists a negative correlation between a fund's performance and its lagged assets under management in the U.S.
- There is scope for large funds in the U.S. mutual fund industry to generate new investment ideas.
- If the 'liquidity hypothesis' holds true, size ought to erode performance much more for funds that have to invest in small stocks which tend to be illiquid. It is indeed the case and that 'small cap' stocks in the U.S tend to exhibit a significantly stronger negative correlation between lagged assets under management and fund performance.
- Assets under management of the other funds in the family to which the fund belongs actually increase the fund's performance. They believe that

this could be due to economies of scale associated with trading commissions and lending fees at a management company level.

Grinblatt and Titman (1993) note that small funds are also at an advantage over large funds when purchasing and selling stocks as they are able to do so in small amounts which has little effect on the price of that stock. Their data indicate that the smallest funds exhibit the largest performance. This can be related to the fact that aggressive growth funds tend to be the funds with the smallest net asset values, and as these funds tend to have greater performance than funds with other investment objectives, it would follow that smaller funds are likely to outperform their larger competitors.

2.6 The Relationship between Fund Performance and Fees

Dellva and Olson (1998) research the relationship between fees on mutual funds and performance using data collected in the U.S. They note that fees may be justified if they allow the fund to lower other costs or improve performance. Grossman and Stiglitz (1980) view market efficiency as informed investors earning a sufficient amount to just compensate for the information gathering. Using this train of thought, returns on mutual funds, net of expenses, should be no better than returns on a passively managed index fund in an efficient market. Prior research has shown that mutual fund performance, after deducting expenses, is worse than what investors can earn by following a naïve buy and hold strategy (Treynor (1966), Sharpe (1966)). However, other studies have shown that mutual fund managers were able to justify the expenses charged by using data from different time periods and choices of benchmarks (Friend, Blume and Crocket (1970), Williamson (1972), McDonald (1974)). Dellva and Olson (1998) find a significant negative relationship between risk-adjusted fund performance and the expense ratio. Thus, their results indicate that superior funds do not incur more costs to become better informed or to process information. Rather, they show that superior funds exhibit lower costs. They

continue to investigate the relationship between front-end load charges and performance. The results show that load charges have a significant negative relationship with fund performance. Thus, investors should attempt to avoid load charges. Of 2000 mutual fund investors surveyed by Alexander et al. (1998)**, "**84 percent of respondents believed that funds with higher expenses earned average or above average returns." Elton et al (1993) find that mutual funds in the U.S. do not earn returns that justify their information acquisition costs. Elton et Al (1993) show that higher expenses are associated with poorer performance. They also find no evidence that mutual funds which charge loads compensate investors sufficiently for the added cost. Low (2008) finds that fund expenses in the Malaysian market are a significant determinant of fund performance.

Korpela and Puttonen (2005) found that previous year returns were unable to explain Finnish mutual fund expenses.

Daniel et al (1997) find that actively managed funds in the U.S. do in fact manage to outperform their more passive competitors. However, their research indicates that the magnitude of this excess return is rather small, and doesn't compensate investors for the added management fees and funds expenditure on resources. The characteristic based measure of performance used by Daniel et al (1997) attributes "no significant abnormal performance to investors who simply follow a mechanical, characteristic-based strategy."

The results of the study performed by Low (2008) show that funds in Malaysia with high return volatility tend to have lower management expense ratios.

Despite the increase in competition due to the growth in the U.S. Mutual Fund industry, average expenses grew from 1.26 percent of assets in 1987 to 1.45 percent in 1992 (Dellva and Olson (1998)). Koreamaki and Smythe (2004) examined Finnish mutual fund fees and found that expenses charged by Finnish mutual funds have declined over time as the market has become more

competitive. Daniel et al (1997) note that more than half of the expenses of mutual funds in the U.S. arise because of their stock selection efforts.

Carhart (1997) finds that returns on mutual funds in the U.S. are negatively related to expense levels, which are generally higher for actively managed funds. The study also finds that more actively managed funds, represented by higher volume of trades made by the fund's manager, earn on average a lower benchmark-adjusted return for their investors than do less actively-traded funds.

In the paper by Gil-Bazo and Ruiz-Verdu (2007) the authors show that better quality funds in the U.S. should not be expected to charge higher prices. They note that, "Although their study takes mutual fund quality as exogenous, mutual fund management companies may set the quality of funds they offer through their choice of managers or their expenditure in market analysis." Their study shows that requiring funds to disclose the level of fees charged by the fund relative to average of median fees in the corresponding investment category could greatly contribute to preventing funds from overcharging unsophisticated investors.

2.7 The Relationship between Incentive Fees and Total Fund Fees

Korpela and Puttonen (2005) find that Finnish funds with incentive fees have significantly lower operating costs. Incentive fees can also have a negative impact on management behaviour in terms of stock selection and portfolio risk. Brown et al (1996) find that funds in the U.S. with incentive fees which are classified as 'losers' relative to the competition during a performance period do indeed increase portfolio risk to a greater degree in order to increase expected returns.

2.8 Ancillary Topics

The following section of literature reviewed is included in order to enhance the understanding of what makes up total expenses relating to mutual funds as well as to cover other areas of related research.

2.8.1 The Components of Mutual Fund Fees

The number of U.S. funds with front-end loads remained fairly constant over the period from 1987 to 1992, with over 60 percent of funds charging front-end loads to investors (Dellva and Olson (1998)). The results of Korpela and Puttonen (2005) indicate that having a front-end load, back-end load, or both fees has no influence on fund expenses in the Finnish mutual fund industry. Sirri and Tufano (1998) find that while changes in expense ratios are inversely related to flows of assets into and out of funds in the U.S., changes in loads are not. Increasing loads causes increases in total fees charged to consumers. This makes the funds less attractive. However, the increase in load fees is usually passed on to brokers who will then increase marketing efforts due to the increased incentive for selling those funds. Thus, the two effects seem to offset each other.

Barber et al. (2005) show that funds in the U.S. with higher growth rates have higher expense ratios and that funds without front-end loads, which tend to be smaller than funds with front-end loads, enjoy higher growth rates.

Incentive fees make management compensation a function of performance relative to a certain benchmark. Management fees are typically made up of a fixed portion plus an incentive fee. Elton et al. (2003) argue that the best managers will gravitate towards funds which have incentive fees due to the fact that they can make more money with this fee structure. As such, investors should be willing to place more assets in these investment pools if they have the best managers. The variable portion of the incentive fees must be symmetrical around a benchmark and have both an upper and lower limit, and are usually set so that

total fees earned by fund managers can never be negative. Elton et al (2003) state that due to the fact that there is no risk-adjustment factor when determining incentive fees, managers can invest in non-benchmark assets in order to boost returns and, as a consequence thereof, boost their fees. Thus, exposure to smaller, riskier stocks is not penalised. Elton et al (2003) find that, on average, "fund managers have earned a negative incentive fee of 0.006 percent of net assets per year in the U.S." They find that "more common stock funds have earned negative rather than positive incentive fees and international funds have earned positive incentive fees on average." A further finding of their research is that "funds which have high incentive fees in one period are almost twice as likely to have high incentive fees in the next period as they are to have low incentive fees. Funds which have low incentive fees in one period are one and a half times more likely to have low fees in the subsequent period." Their study also shows that there is no difference in the relationship between being a high or low fee fund and the size of the incentive fees earned as a percentage of total assets. Elton et al (2003) also find evidence that, in the U.S., upon dropping incentive fees, funds' expense ratios increase. They hypothesize that dropping incentive fees is a way in which funds can increase expense ratios and not have to report negative incentive fees.

Elton et al (2003) find a relationship between incentive fees and flows of assets into funds in the U.S. They find strong evidence of incentive fees attracting new investors. This supports the theory that incentive fees send a positive signal to investors with regard to the quality of management of funds.

The study conducted by Sirri and Tufano (1998) indicates that funds in the U.S. spend more than half of their expenses on marketing. They also indicate that changes in fund expense ratios are less related to changes in marketing expenditure than changes in loads due to the fact that expense ratios contain expenses which cover management costs, administration and other expenses.

Houge and Wellman (2007) state that mutual funds in the U.S. are well marketed and have now become part investment vehicle and part consumer product.

Fund managers have the option between keeping returns and using them to market the fund. Barber et al. (2005) find that the 294 funds in the U.S. which advertised in certain financial publications grew faster than those funds which did not. They conclude that advertising has a positive effect on mutual funds.

Houge and Wellman (2007) show that load funds in the U.S. charge significantly higher expenses for core asset management and administration services. They also find that load funds had significantly lower expense ratios in the early years of their sample, but that this has reversed over time.

Gao and Livingston (2008) investigate the components of mutual fund fees in the U.S. They categorise expenses into major fees and minor fees. Major fees consist of advisory fees, servicing agent fees, marketing fees and administrator fees. All other fees are included in the minor fees category. They then discuss which components of costs decrease the most as fund size increases. Their conclusion is that the economies of scale in fund expenses come from smaller fees, many of which are purchased from outside vendors. Advisory fees are essentially found to be constant for larger funds and marketing fees increase in absolute terms as fund size increases.

Investors are generally able to purchase funds directly from the fund complex and in so doing, avoid broker commissions. They will still, however, have to pay front-end loads when purchasing directly from the fund complex. Fund complexes will often pay a fee to a broker in order to gain the status of a non-transaction fund in which the broker charges no commission. Barber et al (2005) hypothesise that broker commissions are salient costs and that investors will attempt to avoid these costs if possible. Thus, non transaction fee funds should

grow at a higher rate than transaction fee funds. The results of Barber et al (2005) confirm this conjecture for funds based in the U.S.

Houge and Wellman (2007) give insight into the legal limits relating to certain expenses on funds in the U.S. In the U.S. 12b-1 fees are capped at 0.67 percent of fees under management plus an additional 0.25 percent annual service fee. Funds which charge more than the 0.25 percent service fee are not allowed to advertise themselves as no-load funds. The maximum load allowed is 8.5 percent of an investment made. What is interesting is that the Collective Investment Schemes Control Act No. 45 of 2002 (Hereafter referred to as "The Act") does not specifically address marketing costs similar to 12b-1 fees in the U.S. Section 93 of The Act lists certain permissible deductions as follows:

(1) The amounts which may be deducted from a portfolio are:
    a. Charges payable on the buying or selling of assets for the portfolio such as brokerage, marketable securities tax, value-added tax or stamp duties;
    b. auditor's fees, bank charges, trustee and custodian fees and other levies or taxes;
    c. share creation fees payable to the Registrar of Companies for the creation of authorised capital or, in the case of a collective investment scheme in property, the costs incurred on the creation and issue of participatory interests;
    d. the agreed and disclosed service charges of the manager; and
    e. any costs incurred as a result of a collective investment scheme in property being listed on an exchange.

(2) Amounts other than those referred to in subsection (1) may not be deducted by a manager from a portfolio unless determined by the registrar.

Collective Investment Schemes Control Act No. 45 of 2002, Section 93

While firms often have difficulty in raising the expense ratio of existing funds in the U.S., they have much greater flexibility when issuing a new fund (Houge and Wellman (2007)). If funds were to compete on cost, one would expect that new funds would show lower expense ratios over time. Houge and Wellman (2007) find that the average cost of new load equity mutual funds in the U.S. has increased by over 30 basis points over the period of their sample and that the cost of new no-load equity mutual funds has fallen by more than 50 basis points. They also state that while regulation 12b-1 related fees may provide an incentive for brokers to sell funds, it appears that investors do not receive any of the suggested long-term benefits. Instead, Houge and Wellman (2007) believe that regulation 12b-1 related fees merely increase the profits of the fund companies at the expense of shareholders. Ippolito (1989) shows that funds with load charges in the U.S. earn rates of return sufficiently high to offset their sales charge when compared to funds which do not.

Houge and Wellman (2007) believe that mutual funds in the U.S. are becoming more adept at segmenting customers in terms of sophistication. They claim that funds which charge load fees take advantage of this ability and charge higher expenses to the less sophisticated investor. They hypothesise that funds which do not charge load fees, which tend to attract the more knowledgeable investor, offer lower fees overall. Investors in funds charging load fees pay higher fees for having the mutual fund marketed to them, thus lowering their search costs.

Sirri and Tufano (1998) hypothesize that marketing expenditure by funds in the U.S. is related to fund performance. Low cost funds have lower total expenses because they expend fewer resources on marketing. High fee fund complexes are found to enjoy flows from performance which are twice as large as those of low fee fund complexes. It seems that funds may be able to accentuate consumer response to higher performance through heavy promotion. Gallaher et al (2006) find that U.S. mutual funds with better performance do not have larger

advertising expenditures. They also show that, for certain types of funds, larger advertising expenditure is associated with lower returns. This is an indication that advertising refers to past returns which may not be sustainable in the long run.

2.8.2 The Relationship between Fund Age and Expenses

Dellva and Olson (1998) find a significant negative relationship between fund age and expenses among mutual funds in the U.S., suggesting that more mature funds have lower expense ratios. They indicate that this could be due to the fact that younger funds must incur start-up costs which are passed on to investors. Ferris and Chance (1987) hypothesize that the lower costs experienced by older funds may in fact be due to a learning-curve effect. Koreamaki and Smythe (2004) find that older Finnish funds charged higher fees, whereas Korpela and Puttonen (2005) find that fund age is unable to explain the fund expenses in their sample of Finnish mutual funds. They hypothesize that older funds charge a premium for greater experience. Older Malaysian funds are found to be smaller in size, have fewer trading activities and be more conservative than younger funds (Low (2008)). Tufano and Sevick (1996) also find that funds in the U.S. with greater experience charge higher fees.

2.8.3 The Relationship between Mutual Fund Fees and Portfolio Turnover

Fund turnover is found to have a significant positive relationship with fund expenses in the U.S. by Dellva and Olson (1998). The expenses which to which this relationship relates are fund operating expenses as opposed to being commissions charged to investors. This would make sense as higher turnover would cause the fund to incur substantially higher transaction costs. Korpela and Puttonen (2005) show that turnover has a positive relationship with Finnish fund expense ratios, indicating that actively managed funds with higher turnover ratios experience greater costs. Elton et al (1993) find that performance is weakly positively related to turnover among mutual funds traded in the U.S. Low (2008)

finds that frequent portfolio turnover leads to high expense ratios in Malaysia and that those large Malaysian funds tend to trade less frequently. This could be another reason why economies of scale are found in the mutual fund industry. Wermers (2000) notes that fund trading activity in the U.S. has more than doubled between 1975 and 1994. He finds that, although trading activity has increased substantially, annual trading costs (per dollar invested in mutual funds) in 1994 are one-third of their level in 1975. It is likely that the general decrease in transaction costs over this time period contributed to this trend. Wermers (2000) also believes that a reason for these lower average annual costs is that funds in the U.S. are now able to execute transactions more efficiently due to increased levels of technology.

2.8.4 Changes in Mutual Fund Fees over Time

Houge and Wellman (2007) document a decline in average fund expenses over time in the U.S., showing that mutual fund investors are becoming more aware on the negative impact of fund expenses on returns. Rea and Reid (1998) investigate the trend over time in total shareholder cost in the U.S. They define total shareholder cost as the expense ratio plus an annuitized portion of any sales loads. Their results show that total shareholder cost has trended downwards from 1980 to 1997. They conclude that the cost of investing in equity mutual funds has decreased significantly over this time period. Wermers (2000) shows that while high turnover funds in the U.S. do indeed incur higher transaction costs, they also hold stocks with significantly higher returns than low turnover funds. Rea and Reid (1998) also find that total shareholder cost for funds charging load fees in the U.S. has fallen from 3.02 percent in 1980 to 2.11 percent in 1997. However, the total shareholder cost for funds which do not charge load fees has increased from 0.78 percent to 0.89 percent over this time period. Distribution costs are shown by their study to have declined from 1.49 percent to 0.62 percent which is reflective of the fact that investors have moved away from funds charging load fees. Rea and Reid (1998) conclude that the decline in U.S. funds' loads has more than offset the growth in regulation 12b-1

related fees. Houge and Wellman (2007) document “a growing abuse of sales and distribution fees amongst U.S. funds which are closed to new investors, almost all of which are funds charging a load. French (2008) shows that the value-weight average mutual fund expense ratio for open end funds in the U.S. grew from 70 basis points in 1980 to 96 basis points in 1988. It remained in a narrow band over the next fourteen years and then declined from 98 basis points in 2002 to 85 basis points in 2006. French (2008) states that this drop in expense ratios in the U.S. could be due to a shift from actively managed funds to passive, index tracking funds. The results of Ippolito (1989) show that mutual funds in the U.S. with higher turnover, expenses and fees earn rates of return which are sufficiently high to offset the higher charges. This indicates that mutual funds are efficient in their trading and information gathering. Elton et al (1993) find no evidence of mutual funds in the U.S. changing their fees over time in response to prior performance.

Wermers (2000) indicates that average expense ratios in the U.S. in 1994 were higher than their level in 1975. He notes that this is probably caused by the fact that a larger proportion of funds in 1994 were newer, small funds when compared to 1975. The substitution of regulation 12b-1 related fees for sales loads has also contributed to this trend.

Barber et al (2005) note that funds traded in the U.S. have significantly changed the way in which they charge expenses. Over the period of their study, there has been a significant drop in the proportion of U.S. equity mutual fund assets invested in funds which charge front-end loads. They postulate that investors are more sensitive to salient, in-your-face fees such as front-end loads than to operating expenses. Barber et al. (2005) find a significant negative relationship between flows and front-end load fees, yet no relation between operating expenses and flows of assets into funds. This is an indication that investors have become more sophisticated and learnt to avoid certain fund expenses. Investors have learnt more quickly how to avoid front-end load fees than how to avoid

operating expenses. The study shows that experienced investors pay on average half the front-end load than first time purchasers. Note that front end loads are not included in the TER of a fund. By theorizing that investors are more sensitive to salient expenses, Barber et al. (2005) make the inherent assumption that investors are also sensitive to the way in which fees are disclosed. Rea and Reid (1998) find that growth of sales in U.S. non load-charging funds outpaced that of load-charging funds over the period 1980 to 1997. Disclosure of absolute fee amounts as opposed to percentages of assets under management could lead to greater fee based competition (U.S. General Accounting Office (2000)).

Barber et al. (2005) find that U.S. funds with front-end loads have higher average expense ratios than funds which do not charge loads. Thus, investors could choose a fund with no front-end load and a low expense ratio. French (2008) shows that "the annuitized cost of loads in the U.S. mutual fund market fell almost monotonically from 149 basis points in 1980 to 15 basis points in 2006." He finds that the total annual costs of mutual funds decreased from 2.19 percent of assets under management in 1980 to 1 percent in 2006. French (2008) also notes that this is likely to be due to the move away from load funds and the increasing popularity of exchange traded funds. Instead of paying loads when purchasing exchange traded funds, investors pay brokerage commissions, and this expense is not captured in calculating annual operating costs.

2.8.5 The Relationship between Fund Types and Objectives and Fund Fees

Tufano and Sevick (1996) find that fees of funds in the U.S. vary significantly between funds with different objectives and also for funds distributed differently and sold to different clienteles.

U.S. funds which have the objective of investing in international securities experience higher expenses than funds which invest domestically and these higher costs are passed on to investors (Dellva and Olson (1998). This could be

caused by either higher transaction costs being incurred by international funds or the higher expenses could be caused by a need for greater research to be performed when investing abroad.

In their study of Finnish mutual fund expenses, Koreamaki and Smythe (2004) find that banks charge higher fees compared to independent management companies. Korpela and Puttonen (2005) show a similar result. This could be because bank customers are not concerned with the fees charged on their funds but rather that they appreciate the convenience.

Korpela and Puttonen (2005) find that passively managed index funds in Finland charge lower expenses than actively managed funds.

Grinblatt and Titman (1993) note that, of the three categories (aggressive growth, growth and growth-income) in their data, drawn from the U.S. mutual fund industry, transaction costs appear to be the largest for the aggressive growth funds. They also indicate that aggressive growth funds tend to have the highest average turnover, fees and expenses and the smallest average net asset value.

2.8.6 Mutual Fund Board Structure and Fees

Directors who sit on the boards of mutual funds are fiduciaries and are legally charged with protecting the interests of shareholders who have purchased their funds' shares (Tufano and Sevick (1996)). One of their duties is to negotiate and approve contracts with the management company. These contracts are used to establish the level of fees which fund holders pay for these services. Tufano and Sevick (1996) study the relationship between board structure and fee-setting in the U.S. mutual fund industry. They conclude that board structure is relevant when considering fees charged by funds. Funds with larger boards, or more precisely, boards with more independent directors in absolute terms, tend to charge significantly higher fees. If this is interpreted as smaller boards showing

more oversight, their result is that smaller boards are more effective. However, they also find that funds whose boards have a higher proportion of independent directors tend to charge investors lower fees. Thus, a large board with a small proportion of independent directors would be likely to charge higher fees than a large board with a large proportion of independent directors. Also, funds whose independent board members sit on a larger proportion of the fund complex's funds tend to have lower shareholder fees. This is possibly a result of the independent directors being able to develop greater expertise or exert greater bargaining power in negotiations with the fund complex (Tufano and Sevick (1996)). Tufano and Sevick (1996) find that the level of unexplained compensation paid to directors seems to have a positive association with fee levels, although this association is only weakly significant.

2.8.7 Survivorship Bias and Mutual Fund Performance

An accepted belief relating to survivorship bias within mutual funds is that funds which disappear tend to do so because of poor performance. Many of the earlier studies in the field of performance of mutual funds were interested in showing new methods of measuring the performance of the funds. However, many of these studies tended to ignore biases within the data used for their research. "Mutual fund attrition can create problems for a researcher because the funds that disappear tend to do so either because their performance is very poor over a period of time or because their total market value is sufficiently small that management judges that it no longer pays to maintain the fund" (Elton, Gruber and Blake (1996)). Because of this, when studying solely the funds which have survived, one will be studying the funds with better performance and as such the performance of the funds will be overstated. However, a fund which does not survive is often merged into a larger fund rather than dissolved. The reason for this is likely to be the fact that the management company to which the fund belongs continue to earn fees from investors in the fund, gain the capital of that

particular fund to invest in better performing securities and are able to delete the fund's record of poor performance (Elton, Gruber and Blake (1996)).

Gilbert and Strugnell (2008) assess whether or not there exists evidence of survivorship bias within the South African context. Their analysis is performed on shares traded on the JSE Securities Exchange. Their research reaches the following conclusion:

> Our analysis shows that any research that excludes delisted shares is likely to be subject to survivorship bias. This may not materially affect the outcomes of the studies (as in this case), but our work suggests that including data for delisted shares is likely to have a significant effect on the results reached.
>
> Gilbert and Strugnell, 2008, pp 13

Elton, Gruber and Blake (1996) also make the observation that funds in the U.S. with different objectives are likely to have different attrition rates. For example, high risk growth funds are more likely to fail than a low risk money market fund. Because of this, the effect of survivorship bias on funds with certain objectives is likely to be greater than that on funds on other categories. Continuing the above example, one would expect the performance of growth funds to be overstated by more than that of money market funds due to the effect of survivorship because more of the money market funds have survived. This makes comparisons between different categories of funds difficult. Variables other than fund category may also be correlated with fund attrition. Another finding by Elton, Gruber and Blake (1996) is the fact that funds in their sample of U.S. based data systematically changed their behaviour prior to being merged into another fund. They use the example of a fund experiencing difficulties and being eyed for a merger by another fund. In this case, the fund could increase its risk in order to increase returns and make the merger seem more attractive and thus gain a higher price for the transaction. Funds which merge into other funds are found, generally, to be smaller than the funds into which they are merged (Elton, Gruber

and Blake (1996)). Survivorship bias is also not found to be a function of market conditions (Elton, Gruber and Blake (1996)).

3. Data

3.1 Data Collection and Collation

Data were collected from a variety of sources. Certain items had to be input using the relevant funds' fact sheets downloaded from management companies' websites. Other data were retrieved from Morningstar and Profile Data. Data were collected per individual fund. Data relating to South African funds' expenses, returns, size and other characteristics were collected as at 30 December 2009. However, the data may not relate specifically to that date as they may not have been published on that date. For example, the TER of a fund would be the most recent published figure. As these are generally published quarterly, it means that the timing mismatch will not be more than three months. As there was a significant shift in the overall financial markets in the last quarter of 2009, the statistics on those funds for which the data was collected by the data providers may be slightly skewed due to this effect. The data collected relating to international markets were collected during June 2010.

Funds of funds were allocated an indicator of 1 and all other funds were allocated a zero. Each fund was allocated to their relevant management company either by manually inspecting the fund fact sheets or by using the name of the fund if it included the management company.

The number of funds per management company was counted manually and input. Management company size was calculated by grouping all funds within the management company and adding together their respective values of assets under management in millions of Rand.

Initial fees were taken directly from data supplied. Those funds for which no initial fee was supplied by the data providers were checked against fund fact sheets. A

sample of funds for which the initial fees were supplied was checked against fund fact sheets to confirm their accuracy. Initial fees are given as a percentage of initial investment. Note that the amount used in the data is a VAT inclusive amount. No adjustment has been made to get this to a VAT exclusive amount due to the fact that all amounts include VAT and thus the relationship between initial charges and total expense ratios is not affected.

Load funds were allocated an indicator of zero and no-load funds were allocated an indicator of one. All funds for which the initial fee is zero are classified as no load funds and all funds with an initial fee are classified as load funds. Note that certain funds may be negotiable on the size of this initial fee and may not even charge the fee for certain transactions. However, these funds could not be separated from the load funds in the data given the information available.

Net Asset Value per unit was also supplied by the data providers. The figure is given in cents per unit of the fund. The size of each fund was similarly acquired from data providers and is stated in millions of Rand.

Dividend Yields were supplied by data providers. The fund fact sheets do not all disclose this figure. Therefore, the number is blank in the data for certain funds.

The fund classifications in which funds operate were also supplied by the data providers. No items were blank for this variable.

Funds were split into Domestic and Foreign funds. Domestic funds invest in South African assets and foreign funds invest in foreign assets. Note, however, that funds classified as being domestic funds are allowed to invest up to 20% of their Net Asset Value in offshore investments, according to the ACI fund classification code (www.asisa.co.za). Foreign mutual funds are those funds which invest at minimum 85% of their Net Asset Value in offshore assets and only feeder funds and funds of funds invest 100% of their funds offshore

(www.asisa.co.za). Domestic funds were classified as such in this study, and foreign funds, feeder funds and funds of funds which invest in foreign assets were classified as being foreign funds. Domestic funds were allocated an indicator of 0 and foreign funds were allocated an indicator of one. This split was done via the use of data from the data providers.

The split between Equity, Fixed Income and Balanced funds had to be done in two steps in order for the modelling. The initial split occurred between Equity funds and all other funds, where Equity funds were allocated an indicator of one and all other funds allocated an indicator of zero. The second split occurred between Fixed Income funds and all other funds. Fixed Income funds were allocated an indicator of one and all other funds were allocated an indicator of zero. For example, a fund with indicators of zero and zero for these variables would then be a balanced fund. These splits were taken from the data supplied by data providers. Commodity and hedge funds are not included for the purposes of this research.

Note that a certain bias may be included in the data due to the fact that data is omitted for certain funds. The funds for which certain data is not available may have caused results to have been slightly different if data were available.

Total Expense Ratios (TER's) were acquired from the data providers used and are expressed as a percentage of assets under management. Certain funds do not disclose their TER's in the fund fact sheets but rather on their quarterly reports. This means that there is a slight mismatch in the dates at which the Total Expense Ratios were captured. However, because they are all within a short period of time (a maximum of three months) of each other, this timing mismatch is considered to be insignificant.

A list of funds which are compliant with Regulation 28 of the Pension Funds Act was acquired from the Association of Savings and Investment of South Africa

(ASISA). Those funds which are compliant with the regulation are allocated an indicator of one and all others are allocated an indicator of zero.

In order to test for the existence of economies of scale at a management company level, an approximation of total management company expenses is required. In order to do this, the Total Expense Ratio of each fund was multiplied by the assets under management of that fund. For each management company, these figures were then added together, thus giving an approximation of the expenses incurred by that management company.

Performance fees were given as a percentage of the Total Expense Ratio by the data providers. This figure is necessary not only to test whether funds with performance fees have different expense ratios to those of funds without performance fees, but also to attempt to quantify this relationship. Funds with performance fees and those without performance fees were also split and given indicator. Funds without performance fees were allocated an indicator of zero and funds having performance fees were allocated an indicator of one.

3.2 Performance Data Explanation

The volatility, expressed as an annual percentage was also retrieved for many of the funds from the data providers.

The starting point for data included data for 889 funds over 30 different fund classifications. According to the Association for Savings and Investment South Africa, there are currently 905 registered mutual funds in South Africa, while the sample used for this research originally contained 889 (being 98.3% of the registered funds in South Africa) funds. Out of these, total expense ratios could only been found for 813 of the funds, thus excluding funds due to this missing data. Dividend yields could be found for 770 of the funds in the sample, thus excluding 119 funds. Only 437 funds in the sample had data for performance

over a 5 year period. This was either caused because funds were younger than 5 years or data could not be found. A decision was made therefore to exclude 5 year performance as a variable within the model to be used. This is because using this variable would reduce the sample to 383 funds. 648 funds had data for performance over a 3 year period, which meant that including this variable only caused 241 funds to be dropped from the sample. Out of the funds in the sample, the annualized volatility was available for 625 of the funds, thus excluding 264 funds from the research. 77 funds lacked data as to whether or not their management fees contained a performance related component or not and were therefore excluded from the analysis. Note that certain data exclusions overlap and therefore the number of funds excluded from the data is not merely the sum of the above exclusions. This left 560 (being 61.9% of the total registered funds in South Africa) funds in the sample used for this research which contained the necessary data.

4. Methodology

The research which follows is broken into two broad sections. The first section investigates whether or not fees charged by South African mutual funds are higher than those charged globally. The second section attempts to identify certain relationships within the South African mutual fund industry.

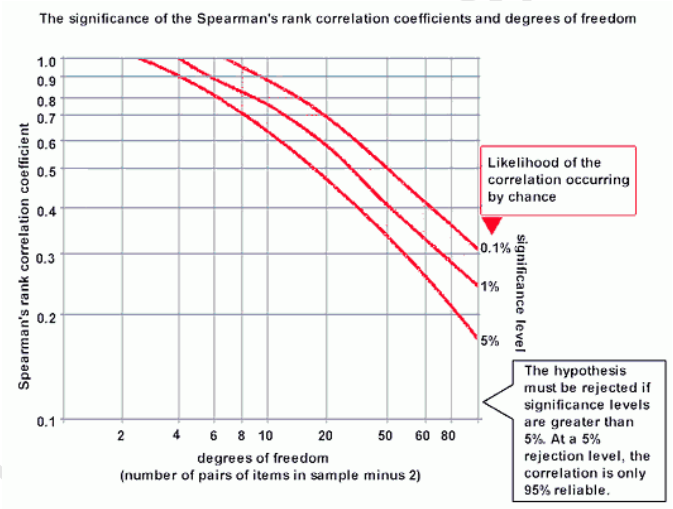
For the comparison between South African mutual fund fees and fees globally, a basic one-tailed independent groups t-test is employed in order to establish whether the mean TER's for the different countries are significantly different. In order to do this, descriptive statistics per country needed to be calculated. For the initial portion of this analysis, the mean South African TER as calculated for the sample of funds included in this study is compared to previous studies conducted globally which give the data necessary for comparison. The methodology employed relating to specific studies is expanded on where necessary under the results section in order to facilitate easier understanding of the nuances specific to different data sets. For the latter part of this section, descriptive statistics are calculated per country, for 9 countries, and one-tailed t-statistics are calculated for each of these countries related to the South African mean TER.

The methodology employed for the investigation of the relationship between fund expenses and performance includes the use of the Spearman Rank Correlation coefficient and the performance of certain regression models.

For the initial part of the investigation, Spearman Rank Correlation coefficients are calculated between certain variables. Each fund is ranked on each variable included in the analysis in an ascending order. For example, the fund with the lowest expense ratio is assigned a rank of one; the fund with the second lowest expense ratio is assigned a rank of two and so on.

The calculation of the Spearman correlation coefficient is based on absolute differences between rankings for items across two variables. For example, item A may be assigned a rank of 3 on variable 1 and a rank of 7 on variable 2. In calculating the Spearman correlation coefficient between variable 1 and variable 2, the difference calculated of 4 will be used for Item A. These differences are calculated across all items and then summed. This sum is then scaled down to lie between one and negative one. A Spearman correlation coefficient of one indicates perfect positive correlation and a coefficient of negative one indicates perfect negative correlation. A coefficient of zero would indicate that no correlation exists between the two variables. The following figure indicates the statistical significance of a calculated Spearman correlation coefficient:

Figure 2



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The following variables are used in the analysis:

- Total Expense Ratio.
- Fund Volatility.
- Absolute annualized fund performance over the most recent six, twelve and thirty-six month periods.

- Fund classification excess return over the most recent six, twelve and thirty-six month periods.
- Fund classification excess return divided by fund volatility over the most recent six, twelve and thirty-six month periods.

The final three variables in the above listing are used as performance measures for the funds in the sample. The total expense ratio is used as a measure for fund expenses.

It was originally decided that making use of calculated performance measures, as above, should be used for the investigation of the relationship between expenses and performance due to the complexity in calculating performance relative to funds' stated benchmarks. The benchmarks against which funds are measured were obtained for 158 out of the 559 funds retained in the sample. Out of these 158 benchmarks, the following complexities existed in the calculation of benchmark returns over the periods selected for testing:

- Seven of the benchmarks were made up of composite indices. For example, "50% STeFi Composite Index, 30% FTSE/JSE All Share index, 20% BEASSA All Bond Index." The time taken to calculate the return on each of these individual composite indices was not warranted given the expected usefulness of the information which the calculation would yield.
- While a number of funds use benchmarks which are inflation linked, the definitions of these benchmarks vary hugely. For example, certain benchmarks are net of fees, while others are gross of fees and certain benchmarks make use of the CPI while others make use of the CPI(X) as a measure of inflation. Further work on comparisons with these benchmarks has not been performed as it is outside the scope of this research.
- Similarly, for equity related funds, the range of benchmarks is vast and benchmarks are often defined in a manner whereby the benchmark return is extremely difficult to calculate. For example, a certain fund defines the

benchmark against which performance is measured as being “other funds in the fund classification.” Again, no comparison has been made against these benchmarks due to this being outside the scope of this research.

Relationships are investigated on three different levels:

1. All funds within the sample.
2. Only funds for which a performance fee component is included in the TER.
3. Only funds for which there is no performance fee component included in the TER.

5. Descriptive Statistics

Please note that these statistics have been included for completeness, but do not show the most interesting results drawn from this research. However, the results included in Section 5 highlight groundbreaking relationships pertinent to the South African mutual fund investor.

By December 2009, the number of funds registered with the Association of Savings and Investment of South Africa had grown to 907, an increase of 60 percent on the 2005 figures. The following is tables contain descriptive statistics from the data collected for different categories. The tables are included in order to give a broad overview of the South African mutual fund industry, but are not expanded on in great detail due to the fact that they are relatively self-explanatory and the more interesting relationships have been investigated in greater detail in the results section.

For the following, a 5 percent level of significance has been used.

5.1 Regulation 28 Compliance

The following table is a summary of descriptive statistics for TER's of funds which are defined as being compliant with Regulation 28 of the Pension Funds Act and those which are not. Regulation 28 stipulates in what assets pension funds may invest and imposes maximum limits on certain assets classes. The t-test per the following table examines whether there is a difference in the mean TER for Regulation 28 compliant funds and funds which do not comply with regulation 28.

Table 1

	Regulation 28 compliant	Non-Regulation 28 compliant
Max (%)	3.75	4.08
Min (%)	0.51	0.02
Average (%)	1.84	1.59
Standard Deviation	0.60887	0.62271
Number of Funds	124	435
T test p-value	0.000048117	

These results indicate that the mean TER for regulation 28 compliant funds is higher than that for non compliant funds.

5.2 Performance Fees

The following table presents descriptive statistics for TER's funds for which management compensation includes a performance related portion and those for which management compensation is not performance related. The distinction between the two is made by defining all funds within the data set for which a performance component of total expenses is presented as being funds with performance related compensation and all other funds are defined as not having performance related compensation. This may not be entirely accurate due to the fact that fund performance during the period under review is not exceptional and as such performance related compensation may be zero for certain funds. However, it does manage to separate out those funds for which incentive fees were earned by managers. The t-test per the following table examines whether a difference exists between the mean TER for funds with a performance related fee component and those which do not have a performance related fee structure.

Table 2

	No Performance Fee	Performance Fee
Max (%)	4.08	3.75
Min (%)	0.02	0.51
Average (%)	1.63	1.74
Std. Dev	0.61927	0.69374
No. Of funds	500	59
T-test p value	0.14338309	

These results indicate that the mean TER for funds with a performance fee component is not significantly different to that of funds without a performance related component.

5.3 Fund of Funds

The following table presents descriptive statistics for the TER's of funds which are defined as being a fund-of-funds and those which are not. The t-test per the following table tests whether a difference exists between the mean TER's of funds which are defined as funds of funds and those which are not.

Table 3

	Fund of Funds	Non- Fund of Funds
Max (%)	3.83	4.08
Min (%)	0.79	0.02
Average (%)	2.12	1.44
Std. Dev	0.58671	0.52753
No. Of funds	167	392
T-test p value	1.47893E-30	

These results indicate that the mean TER for funds of funds is higher than that for non funds-of-funds.

5.4 Equity, Fixed Interest, Balanced

The following table presents descriptive statistics for the TER's separated into three broad categories of mutual funds, being equity based funds, fixed income funds and balanced funds. The following t-tests examine whether there exists a difference between the mean TER's of equity, balanced and fixed income funds.

Table 4

		Equity	Fixed Interest	Balanced
Max (%)		4.08	3.5	3.75
Min (%)		0.43	0.02	0.63
Average (%)		1.72	1.31	1.74
Std. Dev		0.64344	0.62452	0.52528
No. Of funds		288	105	166
T-test p value	**Eq - FI**	0		
T-test p value	**Eq - Bal**	0.339975317		
T-test p value	**FI - Bal**	0		

These results indicate that the mean TER for equity funds is higher than that for fixed interest funds, the mean TER for equity funds does not differ significantly from that of balanced funds and the mean TER of fixed interest funds is significantly lower than that of balanced funds.

5.5 Domestic, Foreign

The following table presents descriptive statistics for TER's of funds which invest in foreign assets and those which invest solely in domestic assets. The t-test per the following table examines whether there exists a difference between the mean TER for domestic funds and that for foreign funds.

Table 5

	Domestic	Foreign
Max (%)	4.08	3.83
Min (%)	0.02	0.64
Average (%)	1.61	1.89
Std. Dev	0.60341	0.70733
No. Of funds	419	69
T-test p value	0.001103044	

These results indicate that the mean TER for domestic funds is significantly lower than that of foreign funds at the 5 percent significance level.

5.6 Management company size and TER

The following table presents the correlation between the size of South African fund families and the TER's of individual funds within those fund families.

Table 6

Correlation	*Management company Size (Rm)*	*TER*
Management company Size (Rm)	1	
TER	-0.259097104	1

The above table indicates a weak negative correlation between management company size and TER.

5.7 NAV and TER

The following table presents the correlation between the Net Asset Values of South African mutual funds and their TER's.

Table 7

Correlation	*NAV*	*TER*
NAV	1	
TER	-0.05534005	1

The results above indicate very little correlation between fund size and TER.

5.8 Dividend Yield (%) and TER

The following table presents the correlation between the dividend yield of South African funds and their TER's.

Table 8

Correlation	*Div Yield (%)*	*TER*
Div Yield (%)	1	
TER	-0.282687655	1

The above results indicate a very weak negative correlation between dividend yield and TER.

5.9 Volatility and TER

The following table presents the correlation between South African mutual fund volatilities and their TER's.

Table 9

Correlation	*Volatility (Annualised %)*	*TER*
Volatility (Annualised %)	1	
TER	-0.023553049	1

The above results indicate little or no correlation between fund volatility and TER.

5.10 Load, No Load

The following table presents descriptive statistics for funds for which the investor pays an upfront load fee and those for which the investor does not pay a load. The t-test per the following table examines whether there exists a difference between the mean TER of funds which charge sales loads and those which do not.

Table 10

	Load	No Load
Max (%)	4.08	3.83
Min (%)	0.02	0.43
Average (%)	1.65	1.62
Std. Dev	0.62	0.68
No. Of funds	430	129
T-test p value	0.33951524	

The above results indicate that the mean TER of funds which have a load is not significantly different from funds which do not have a load.

5.11 TER Overall

The following table presents descriptive statistics for all of the TER's of South African funds included in the sample for this research.

Table 11

Max (%)	4.08
Min (%)	0.02
Std Dev	0.62765
Average (%)	1.65
No. of funds	559

5.12 No. of units and TER

The following table presents the correlation between the number of units into which South African mutual funds are split and their TER's.

Table 12

Correlation	*Approx. No. Of units per fund*	*TER*
Approx. No. Of units per fund	1	
TER	-0.171140054	1

The above results indicate very weak negative correlation between the number of units in a fund and the fund's TER.

6. Results

6.1 South African TER's vs. International TER's

6.1.1 Comparison with previous studies

All Fund classifications

Table 13

Domicile	**Full Sample: Mean TER**
Japan	-
Netherlands	0.64
Austria	0.76
France	0.77
United States	0.81
Belgium	0.88
Ireland	0.99
Finland	0.99
Denmark	1
Germany	1.05
United Kingdom	1.13
Island Offshore	1.16
Australia	1.17

Sweden	1.19
Luxembourg	1.22
Italy	1.23
Spain	1.29
Switzerland	1.39
South Africa	1.55
Norway	1.89
Canada	2.2
Global Mean	**1.1655%**
Global Std. Deviation	**0.3787**
SA Mean	**1.65%**
SA Std. Deviation	**0.62765**
One Tail t-test t-stat	3.227

The table above is derived from the study by Khorana et al (2007) TER's per domicile have been ranked from the smallest TER to the largest. Unfortunately, standard deviations within each country were not available in the study and as such a direct comparison between South African TER's and those of each specific country was not possible. The mean global TER has been calculated above as a simple average of the TER's presented in the study. The standard deviation has been similarly calculated. While this is not an ideal method for calculating descriptive statistics, as it ignores complications such as the weightings of market capitalizations of mutual funds within different countries, the data available limited the ability to calculate more accurate global figures. However, a simple average is taken as being a reasonable approximation of the global figures.

Note that for certain countries there are hyphens for the mean TER. This is due to the fact that the databases used by Khorana et al (2007) either did not allow the authors to allocate funds to a specific fund classification or the data were not available for that specific country. This can also be seen in the following tables relating to the Khorana et al (2007) research.

The Island Offshore line relates to a cluster of nine offshore locations including the following:

- Bermuda;
- The Cayman Islands;
- The Isle of Man; and
- Jersey Guernsey.

Note that the following G20 countries are included in the sample of countries used by Khorana et al (2007):

- Australia
- Canada
- France
- Germany
- Italy
- Japan
- South Africa
- The United States
- Certain countries of the European Union

The average South African TER is calculated using weightings of the individual funds in order to gain a more accurate South African TER. The figure is calculated using 559 out of the 907 funds in the South African market, in order to ensure consistency with results in the following sections through the use of the same sample of data. Making use a sample which comprises approximately 62% of the population is accepted as being a reasonable estimate of the mean TER for the entire population of funds within South Africa.

From the above calculations it can be seen that South African TER's do indeed appear to be at the higher end of the scale of fund fees globally. Of the countries examined in the global sample, only Canada and Norway appear to have average TER's greater than those of South Africa. This would indicate that South

Africa ranks as the country with the third highest TER's out of a sample of 21 countries. Further evidence of this can be seen in the fact that when a one-tail t-test is performed comparing the mean South African TER to the mean global TER, a t-statistic of 3.227 is returned which would lead the researcher to reject the null hypothesis that South African TER's are not significantly higher than those globally. Thus, one can conclude, from the data available, that fund expenses are higher in South Africa than those on a global platform.

This result can be further investigated by splitting TER's across countries between those in the equity fund classification, the fixed income fund classification and the balanced fund classification. The following analysis attempts to do this while using the same methodology as has been used for the above analysis of the overall mutual fund universe per country.

Balanced Funds

Table 14

Domicile	Balanced
Netherlands	-
Denmark	-
Norway	-
Japan	-
Austria	0.72
Belgium	0.81
United States	0.89
France	0.95
Germany	0.98
United Kingdom	1.08
Sweden	1.18
Switzerland	1.24
Luxembourg	1.29
Finland	1.35
Australia	1.4
Italy	1.42
Island Offshore	1.56
Spain	1.64
Ireland	2.31
Canada	2.63
Global Mean	**1.3406%**
Global Std. Deviation	**0.5170**
SA Mean	**1.74%**
SA Std. Deviation	**0.52528**
One Tail t-test t-stat	4.1782

The table above is the result of the investigation of international balanced funds' TER's. The international TER's are sourced from the paper by Khorana et al (2007). In the case of balanced funds, the t-test comparing the South African mean TER to the global mean TER yields a t-stat of 4.1782, indicating that the TER's of South African mutual funds within the Balanced fund classification are statistically significantly higher than those globally. The methodology for the calculations is the same as that used for the calculations in the previous section

dealing with all funds. It is also interesting to note that the mean South African TER for the balanced fund classification ranks as the 18th highest out of the 21 countries included in the sample.

Fixed Income

Table 15

Domicile	Fixed Income
Netherlands	-
Japan	-
Austria	0.55
Finland	0.55
Sweden	0.59
Norway	0.59
Belgium	0.59
Australia	0.63
Island Offshore	0.65
United States	0.78
Germany	0.79
France	0.85
Denmark	0.86
United Kingdom	0.88
Switzerland	0.89
Luxembourg	1
Ireland	1.08
Spain	1.08
Italy	1.08
Canada	1.79
Global Mean	**0.8461%**
Global Std. Deviation	**0.3016**
SA Mean	**1.31%**
SA Std. Deviation	**0.62452**
One Tail t-test t-stat	1.9535

Within the fixed income fund classification, the TER's globally are slightly more clustered around the mean TER. Although the South African mean TER within the fixed income fund classification ranks as the 17th highest out of the 21 countries in the sample, the large standard deviation in the TER's within the South African fixed income fund classification does not allow the researcher to conclude that TER's within the South African fixed income context are significantly higher than those on the global stage. The t-stat of 1.95 yielded by

the test does not allow for a conclusion of statistical significance at the 95% confidence level.

Equity Funds

Table 16

Domicile	Equity
Netherlands	0.64
Belgium	1.05
United States	1.11
Denmark	1.15
Germany	1.17
Australia	1.17
United Kingdom	1.18
France	1.22
Sweden	1.37
Austria	1.47
Switzerland	1.47
Ireland	1.52
Finland	1.57
Spain	1.58
Island Offshore	1.61
Luxembourg	1.7
Italy	1.92
Japan	1.92
Norway	1.97
Canada	2.56
Global Mean	**1.4675%**
Global Std. Deviation	**0.4214**
SA Mean	**1.72%**
SA Std. Deviation	**0.64344**
One Tail t-test t-stat	1.5172

The result for the equity fund classification is similar to that for the fixed income fund classification. While the South African mean TER for the Equity fund classification ranks as the 16th highest of the 21 TER's in the sample, the magnitude of the standard deviation of the TER's within the South African Equity

fund classification does not allow the researcher to conclude that TER's within the South African equity fund classification are significantly higher than those globally.

Thus, it appears that the main reason for South African mutual funds' TER's being significantly higher than those globally is due to the seemingly high TER's within the South African Balanced funds fund classification. At first glance, it would appear that TER's in the Fixed Income and Equity fund classifications are higher in South Africa than globally. However, this cannot be concluded using a 95% confidence level, mainly due to the large variation in fees in the South African fund classifications. Note also that a discussion of the residuals, normality of the distribution thereof and heteroskedasticity has been excluded from these results. The reason for this is that a statistical discussion in this depth is outside the scope of this research and the main focus of this research was data collection and a preliminary analysis of said data.

Latzko (1999) examines a random sample of 600 U.S. Mutual funds in existence between 1995 and 2005. His analysis includes the following table:

Table 17

U.S. Group	Average Expense Ratio
All funds	1.23%
Domestic Equity	1.29%
Foreign Equity	1.87%
Fixed Income	1.17%
Municipal Bond	0.93%

The calculations for the previous comparisons to the Khorana et al. (2007) data yields the following summarized table for South African Funds:

Table 18

South African Group	Average Expense Ratio
All Funds	1.65%
Balanced	1.74%
Fixed Income	1.31%
Equity	1.72%

While the Latzko results are not directly comparable to the South African figures due to the fact that they are dated before 2001, the differences do add some value. Note that certain studies have found that TER's have decreased over time. As such, the Latzko figure of 1.23% for the average TER in the U.S. mutual fund industry is likely to be lower at the end of 2009 than at the end of 2001. The South African mean TER of 1.55% is 0.32% higher than that of the U.S market at the end of 2001. This is likely to be greater now due to the reason mentioned above. Without more information relating to the standard deviations of the TER's within the U.S market at the time of the Latzko study, it is not possible to determine whether or not South African TER's are significantly higher than those in the U.S. Market. However, the simple comparison of the figures is still interesting.

Babalos et al (2008) consider TER's across mutual funds in the Greek equity fund classification between 2000 and 2006. They find a mean TER within this fund classification in the Greek mutual fund industry of 3.3% and a corresponding standard deviation of 2.1%. Their research examined 75 funds which were in existence over the time period specified. When comparing this to the South African figures within the equity fund classification, a t-stat of 11.2534. Therefore, this set of data can be used to conclude that there is a significant difference between TER's in the South African and Greek equity fund classifications. It would appear that South African TER's are significantly lower than those in the Greek equity fund classification.

HU et al (2008) investigate mutual fund expenses in the U.S domestic equity fund classification between July 2003 and March 2007. Their research indicates a mean TER in the data of 1.46% and a related standard deviation of 0.59 for the 3875 funds included in their research. When compared to the South African figures of 1.69% and 0.64, a t-stat of 6.0657 is calculated. This allows the researcher to conclude that TER's within the South African equity fund classification are significantly higher than those in the U.S equity fund classification when using a 95% confidence level.

6.1.2 International Comparison using new data

Table 19

	South Africa	Norway	Canada	France	Italy	Latvia	Malaysia	United Kingdom	United States
Mean	1.645	1.580	1.572	1.616	1.668	1.839	1.434	1.410	1.234
Standard deviation	0.628	0.769	0.428	1.718	0.910	0.915	1.466	0.709	0.553
Max	4.08	7.07	3.45	144	13.35	7.44	28.36	8.86	3.08
Min	0.02	0	0.01	0.01	0.01	0.04	0.04	0.01	0.18
Size of sample	559	2748	7244	12484	3799	555	460	5313	920
% of pop	61.63%	37.30%	100%	84.01%	30.37%	90.83%	83.79%	84.13%	-*
Number on Morningstar	907	7367	7244	14860	12507	611	549	6315	-*
t-test value	n/a	1.8752	3.7345	0.3979	0.5776	4.1283	3.0773	7.5318	12.7721
Significant at 95%	n/a	No	Yes	No	No	Yes	Yes	Yes	Yes

* Figures not available

These t-tests are comparisons between mean TER's of countries when compared to that of South Africa. As such, no t-test was performed comparing the South African mean TER to itself.

The table above indicates descriptive statistics for expense ratios globally. Note that the results above do not correlate with the results presented earlier in the paper due to timing differences relating to data collection. Out of the nine countries included in the sample used for global testing of TER's, the country exhibiting the highest mean TER is Latvia, the country displaying the lowest mean TER is the United States, and the South African mean TER ranks as the seventh highest out of the sample of nine countries. Note that the statistics for

certain countries are more accurate than for others due to the fact that the sample sizes are significantly higher as a proportion of the total population.

The t-tests performed on the TER's relative to the South African mean TER display the following results:

- Neither Norway nor France nor Italy display TER's which can be concluded as being significantly higher or lower than those of South African funds.
- Canada, Malaysia, the United States and the United Kingdom have TER's which are significantly lower than those of South African funds.
- Latvia exhibits TER's which are significantly higher than those of South African funds.

From these statistics, one cannot conclude that South African funds exhibit significantly higher or lower TER's than one sees on a global stage.

One would expect that Canada, the United States and the United Kingdom have more developed financial markets than South Africa, and this could be the reason why mutual fund expenses in these countries are lower than those in South Africa. The converse may also be true for the result obtained relating to the expenses charged on Latvian mutual funds. The Latvian financial market may be less developed than that of South Africa, resulting in fees charged being higher. It is unclear as to why fees charged on Malaysian mutual funds are significantly lower than those charged on South African mutual funds.

It would therefore appear that there is a significant discrepancy between the expenses charged to investors in the developed world and those charged in the developing world. Although South Africa is included in the G20, it appears that our fee structures within the mutual fund industry do not match those of developed nations.

Another explanation for why fees in certain countries are lower than those charged in South Africa could lie in the level of competition within those countries. The sample of TER's drawn from the United Kingdom relates only to funds domiciled in the United Kingdom, and as such excludes funds domiciled elsewhere but sold in the United Kingdom. The sample contains 5313 funds out of a total of 6315 funds domiciled in the U.K. Thus, there are almost seven times as many funds domiciled in the U.K. as there are in South Africa. The existence of a greater number of funds is likely to cause a greater degree of competition between funds, which in turn could lead funds to aim for greater efficiencies in costs if they are to be viable. A similar explanation can be applied in the Canadian context. However, this explanation cannot be applied to the Malaysian results, as there are only 549 funds domiciled in this country, according to Morningstar. This reasoning may also hold for the comparison between South African and Latvian fees. With only 611 mutual funds domiciled in Latvia, the degree of competition between funds may be significantly lower than that in South Africa. Thus, it may be that funds need not strive for high cost efficiencies and as a result the level of fees exhibited in Latvia is higher than that in South Africa. Another consequence of higher levels of competition may lead funds to market themselves as being lower cost to consumers in order to obtain greater funds.

A greater number of funds in existence in a country may also lead to costs being lower due to economies of scale. Each management company may be larger, and as such the fixed costs relating to that management company are spread over a greater number of funds which in turn reduces the expense ratios of individual funds. This could explain the results relating to the U.K., Canada and Latvia in relation to South Africa.

6.1.3 Economies of Scale evident across South African Mutual Funds

Table 20

Correlation	*Fund Size (Rm)*	*TER*
Fund Size (Rm)	1	
TER	-0.063711303	1

The Pearson correlation between fund size and total expense ratios for South African mutual funds is low. Table 20 above indicates that a correlation of -0.063711 exists between these two variables. Thus, it would seem that economies of scale do not exist across South African mutual funds, within the given data set. This is contrary to international findings and possibly even counterintuitive. It is also an indication that South African mutual funds are not cost effective as they do not take advantage of splitting a fixed cost base as the fund grows. This may be as a result of funds having a larger proportion of variable expenses as opposed to large fixed costs.

Table 21

Correlation	*Management company Size (Rm)*	*TER*
Management company Size (Rm)	1	
TER	-0.259097104	1

Further investigation into the effect of management company size on expense ratios gives insight as to why economies of scale are not large at an individual fund level. The correlation, per Table 21 above, between the size of a management company and estimated total expenses for that management company is -0.2591. It is possible that large fixed expenses are incurred at a management company level and then allocated to individual funds. The reason for the lack of strong economies of scale at an individual fund level could be as a result of inaccurate allocation of centrally incurred costs by fund families.

Table 22

Correlation	*Approx. No. Of units per fund*	*TER*
Approx. No. Of units per fund	1	
TER	-0.171140054	1

Another interesting relationship which arises when evaluating economies of scale across South African mutual funds is the relationship between the number of units per fund and the expense ratio of that fund. Intuitively, one would think that fewer units per fund may indicate fewer investors in that fund. With fewer investors, the fund would be likely to have fewer transactions occurring which would cause lower fund turnover and as such the fund should incur lower administrative costs. However, the relationship which exists in the dataset used for this research indicates that as the units in the fund increase, the expense ratio actually decreases. As per Table 22 above, the correlation between the number of units per fund (estimated by dividing the total market capitalization of the fund by the Net Asset Value per unit of the fund) and the expense ratio turns out to be -0.1711. It is possible that this relationship could be caused by the Net Asset Value per unit being negatively correlated with the expense ratio of certain funds. This could be explained by funds with larger unit Net Asset Values being aimed more at institutional investors than at retail investors. It is likely that institutional funds experience lower fund turnover and as such incur lower administrative costs. When investigating this relationship, there is a very weak negative correlation between these two variables of -0.0553, as per table 23 below. Thus, it would seem that the above explanation may hold some validity in that there is a negative relationship between unit NAV and funds' expense ratios. However, the magnitude of this correlation is not large enough to be significant.

Table 23

Correlation	*NAV*	*TER*
NAV	1	
TER	-0.05534005	1

Another factor which could possibly be the cause of the negative relationship between fund NAVs and expense ratios is the market capitalization of the given fund. However, as noted earlier, the relationship between fund size and expense ratio is extremely weak. As such, it would seem that the relationship which arises between fund NAVs and expense ratios is not as a result of the inputs to get to the number of units per fund, but rather it is due to a relationship existing between the number of units in a given fund and the expense ratio of that fund.

6.1.4 The relationship between fees and performance of South African Mutual Funds

As with the previous section, fund performance was estimated using a variety of benchmarks, as well as ranking funds within different fund classifications in order to calculate Spearman rank correlation between fund expenses and performance. The tables in appendix 2 illustrate the results of this investigation.

Table A2.1 represents following model:

$$TER = \alpha + \beta(P_3)_i + \varepsilon$$

Where the following symbols are representative of:
α: the mean excess return of mutual funds over their stipulated benchmarks.
β_i: the relationship between of the total expense ratio and a given fund's 3 year excess return of its given benchmark, adjusted for fund volatility, and
ε: the standard error of estimated values.

From the above regression, it is evident that little relationship exists between fund expense ratios and their excess return of their stipulated benchmark over a three year period, after an adjustment has been made for risk. The p-value for the model's β of 0.6095 indicates that little statistical significance can be placed on the β of 0.0167. What is interesting in this model is that the regression returns an intercept of 1.647 with a corresponding t-stat of 61.35 indicating that there is a

highly significant, positive average excess return of the chosen benchmarks for the funds within the sample, after an adjustment has been made for risk. This would therefore indicate that fund managers are in fact able to add value over the long run through offering a better risk-reward trade-off than the overall market, or broad fund classifications within the market. What is extraordinary is that the model returns an R-squared value of only 0.00047 and thus is explaining almost none of the variation in the expense ratios.

A similar result occurs when investigating the relationship between fund expense ratios and the excess return, over a one year period, of a given benchmark, once adjusted for the volatility in returns of that fund. Refer to table A2.2 for the regression output relating to this model. Again, the intercept of the model is significantly positive with a significant t-statistic (of 60.68). This is again indicative of fund managers being able to produce a superior risk-reward trade-off than the general market. However, the relationship between expense ratios and risk-adjusted performance is negligible in this case, with a coefficient of 0.005 and a t-statistic of 0.26865. The R-squared figure for this model is 0.00013, which again shows that the model explains very little of the variation in expense ratios.

Similarly, when the risk-adjusted 6 month performance is regressed against fund expense ratios, very weak relationships exist. Please refer to table A2.3 for the regression output relating to this model. The intercept of the model is significantly positive and has a significant t-statistic of 60.71. However, the β coefficient of 0.00284 with a corresponding t-statistic of 0.357 shows that little relationship exists between expense ratios and 6 month risk adjusted performance.

Spearman Rank Correlation

Another method of testing the relationship between fund performance and fees is to make use of the Spearman rank correlation coefficient. By ranking fund performance and expenses, one can measure whether a strong relationship

exists between the two variables. Also, as a part of this analysis, it is necessary to test whether there is a relationship between other independent variables such as the size of a fund and its performance. These tests are done at three different levels in an attempt to separate out fund classification effects, and performance and fees as well as other independent variables considered. Correlation is also calculated for performance over different time periods, as was done for the above regression analysis. Performance is also measured in different ways for this analysis. One measure used is absolute performance over given time periods, being the annualized return of the fund. A second measure of performance is the excess return over a given benchmark. Benchmarks are calculated using simple averages of performance of the funds in the given fund classification over the selected time period, as well as being calculated as weighted average performance based on the market capitalisation of the funds making up the benchmarks. The third measure of fund performance takes into account the risk of the fund, through the use of the volatility of the fund. Thus, this third measure is a reward per unit of risk measure. The use of the fund volatility, however, may cause a problem with the risk side of the measure as it takes into account total fund risk as opposed to systematic risk. However, the use of cross sectional data does not allow the calculation of beta for the funds in this sample over the time periods chosen for analysis. Also, as mentioned in the literature review section of this paper, there is no absolute consensus as to whether systematic or fund specific risk need be used as a measure of risk. In this case, the use of fund specific returns in relation to total risk associated with the fund would make sense. As long as there is consistency between the numerator and the denominator in the measure, the comparison across funds should be effective.

When ranking fund sizes, a rank of 1 was assigned to the smallest fund while a rank of 559 was assigned to the largest fund in the sample. An ascending ranking order was also assigned to expense ratios, with 1 indicating the lowest expense ratio and 559 assigned to the fund with the largest expense ratio. When ranking the performance figures, over six month, one year and three year

periods, an ascending ranking was also assigned to the funds. As such, the worst performing funds were allocated a ranking of 1 and the best performing funds were allocated a ranking of 559.

i. Fund size and expense ratio

When calculated for the funds in the sample, a Spearman correlation coefficient of –0.10293 was returned. Thus, a negative relationship is estimated between fund size and expenses. This is in line with prior research. As the size of a fund increases, the expense ratio decreases. Note that this does not mean that total expenses decrease as larger funds are tested, but rather that expenses as a percentage of total assets under management are less. Therefore, there is evidence in the data to indicate that economies of scale exist across South African funds. However, the magnitude of the correlation coefficient is so small that it cannot be accepted as being a significant relationship. Therefore, when examining other relationships within the data, it is fair to say that their relationships with fund expense ratios are not significantly affected by the size of the funds. As such, tests need not contain a control factor for the sizes of respective funds.

ii. Fund size and performance

For the first test of this relationship, absolute annualized returns over the three chosen time periods are used as the measures of performance. Thus, no adjustment has been made for fund classificational differences or risk within the first set of results.

Similarly to the correlation coefficient calculated for the relationship between fund size and expenses, a coefficient close to zero would indicate that a weak relationship, or no relationship at all, between fund size and performance exists. The following Spearman rank correlation coefficients were calculated:

Table 27

Fund size and performance over the most recent 6 month period	-0.32974
Fund size and performance over the most recent 12 month period	-0.45022
Fund size and performance over the most recent 36 month period	-0.14561

One can see that, with the use of this performance measure, the strongest relationship between fund size and performance is that over the most recent one year period. The relationship between fund size and performance over the most recent three years is the weakest for the three periods investigated and the relationship between fund size and performance over the most recent 6 month period is also insignificant, and therefore unlikely to influence the results obtained when calculating correlation between fund performance and expenses. The relationship between fund size and performance over the most recent one year period should not be interpreted as being a result of flows into and out of funds as the data uses a static point for the measurement of fund size. The measure also does not indicate which of the two variables is causing the relationship. Previous research has indicated that excellent past performance is likely to cause the fund to grow as investors take past performance as being an indication of the quality of the fund as well as an indication of future performance. Therefore, a fund which has performed well should, theoretically, grow after a period of good performance and shrink after a period of poor performance as a result of flows of cash into and out of the funds.

Also, the performance of a fund over a longer time period is likely to be a better indicator of the quality of a fund than that over a short time period. Contrary to this argument is the one which states that the performance of a fund over the most recent time period is that which is more influential to the investor as the

investor sees it as being more relevant. The results from this analysis would indicate that the performance over the longer term has a greater influence on the relationship between fund size and performance.

The relationship between size and performance is negative for the data analysed. However, this is not indicative of the fact that smaller funds are better performing and vice versa. This is merely as a result of the choice of calculation method.

The relationships observed using the above performance measures to calculate the Spearman rank correlation between fund size and performance do not indicate a strong relationship between the two variables. Therefore, in the following analysis there is no need to control for fund size as it is unlikely to have an impact on the relationship between fund performance and expenses.

iii. Performance and TER

The first set of performance measures used for this part of the analysis is the same as that used for the initial analysis of the relationship between fund size and performance, being absolute annualized returns over chosen time periods. The following Spearman correlation coefficients are returned for this analysis:

Table 28

TER and fund performance over the most recent 6 month period.	0.02823
TER and fund performance over the most recent 12 month period.	-0.01428
TER and fund performance over the most recent 36 month period.	0.00169

The above correlation coefficients reveal no relationship between expenses and performance on an absolute basis. As both the expense variable and the performance variables are ranked in ascending order, a Spearman rank correlation coefficient close to zero is an indication that the two are virtually unrelated. Funds with better performance do not tend to have higher expenses, according to the sample used for this research. The relationship is particularly weak for the performance over the most recent three years. The fact that all three of the above correlation coefficients are below 0.05 is strong evidence that better performing funds do not charge their clients higher expenses. This suggests that, on a basis net of fees, investors whose money sits in better performing funds may not be the higher the returns which they expect, even on a net basis after fees have been deducted. Note however, that the above statistics take neither risk nor fund classification effects into account.

The following correlation coefficients are calculated based on ranking fund performance based on an absolute basis, but are calculated per three different fund classifications of mutual funds, being:

a. Equity funds,
b. Fixed Income funds, and
c. Balanced funds.

This is necessary in order to establish whether the lack of relationship identified above between fees and performance is influenced by differences between fees and expenses across fund classifications.

- *TER and Performance within the equity fund classification*

Table 29

TER and fund performance over the most recent 6 month period.	0.076638

TER and fund performance over the most recent 12 month period.	0.0879379
TER and fund performance over the most recent 36 month period.	0.04018372

The above Spearman correlation coefficients indicate that a relationship between expenses and performance within the equity fund classification does not exist. The most significant correlation coefficient identified at an overall fund level was that over the most recent 6 month period, being 0.03. This is lower than the lowest correlation coefficient identified for the equity fund classification funds of 0.04. This is an indication that the relationship between fund performance and expenses may be slightly stronger within the equity fund classification than in the overall set of data investigated. However, the magnitude of this difference is so small that one cannot conclude that there is a significant difference in the relationship between the equity fund classification and the overall fund universe.

- *TER and Performance across fixed income funds*

Table 30

TER and fund performance over the most recent 6 month period.	-0.01636
TER and fund performance over the most recent 12 month period.	-0.0234
TER and fund performance over the most recent 36 month period.	0.084823

An interesting result from the above table is that, in the case of fixed income funds, the most significant correlation coefficient relates to the performance over the most recent three year period. This is contrary to the results seen in the previous two tables. Again, the results for this specific fund classification are more significant than those of the table at an overall fund level. However, they

are less out of line than those results for the equity fund classification. A correlation coefficient of -0.016 between TER and performance over the most recent 6 month period is insignificant and overlaps the levels of significance seen at an overall level. This is yet another indication that fund classification effects do not exist in the relationship between fund performance and expenses.

- *TER and Performance across Balanced Funds*

Table 31

TER and fund performance over the most recent 6 month period.	0.003782
TER and fund performance over the most recent 12 month period.	-0.14977
TER and fund performance over the most recent 36 month period.	-0.19022

Here, it would appear that the relationship between performance and fees is different to that at an overall fund level. The relationship between expenses and performance over the most recent 6 month period is highly insignificant for balanced funds, having a Spearman correlation coefficient of 0.004, while the relationships between expenses and performance over the most recent 12 month and three year periods are more significant than those at the overall fund level. It would seem that a slight relationship between fund performance and expenses may exist within the balanced fund fund classification. The negative relationship would lead one to think that as performance increases, fund expenses decrease. However, the magnitude of the coefficients is not high enough for one to conclude that a significant relationship exists between the two variables.

It may be possible to hypothesize as to why the relationship between fees and performance could be skewed at an overall level. Fixed Income funds have an

average TER of 1.31%, with a maximum TER in the fund classification of 3.5% and a minimum TER of 0.02%. Equity fund classification funds, however, have a mean TER of 1.72% and a range from minimum to maximum TER between 0.43% and 4.08%. Thus, it is likely that expenses within the equity fund classification are higher than those in the fixed income fund classification. This is likely to cause some of the inaccurate conclusions which can be drawn from analyzing the funds at an overall level. The TERs for the balanced funds fall between 0.63% and 3.75%, with an average TER of 1.74%. Thus, it would seem that these fees are higher than those incurred in the fixed income fund classification, but not necessarily different to those incurred in the equity fund classification as they fall within a tighter range but are neither significantly higher nor lower than those fees within the equity fund classification. Thus, if a relationship between fees and performance, taken as absolute returns over a given time period, were to be found, it is likely that this would not necessarily have been a relationship between fund fees and performance, but rather an effect caused by fees differing across fund classifications.

The following section extends the above analysis by using a different measure of performance. While the methodology used below is similar to that used in the previous portion of this analysis, it uses excess return of a specific benchmark as the measure of performance for which a correlation with expenses is calculated.

For the calculations of benchmarks, the following process was followed. Funds were separated into three main fund classifications, being the Equity, Fixed Income and Balanced fund classifications. Once separated into fund classifications, a market capitalization based weighted average performance measure (being the annualized return) for each given time period was calculated for the fund classification by multiplying the annualized return of each fund within the fund classification over the given period by its market capitalization and then summing these results. The total of the market capitalization times annualized return figures was then divided by the total market capitalization of the fund

classification in order to get to the weighted average annualized return for each given time period. In effect, this gives the average performance of funds within a given fund classification over a 6 month, 12 month or 36 month period. Then, the fund classification excess return for each fund was calculated as the difference between the annualized return for a given fund over a specific period and the calculated fund classification average performance. This is a more accurate figure, as it is able to separate out fund classification effects to an extent. The following analysis gives the correlation between these figures and fund expense ratios.

- *TER and Fund classification Excess return for Equity funds*

Table 32

TER and fund classification excess return over the most recent 6 month period.	0.076638
TER and fund classification excess return over the most recent 12 month period.	0.087938
TER and fund classification excess return over the most recent 36 month period.	0.040184

The above Spearman correlation coefficients give a similar result to those calculated in the previous section, but are, however, slightly more significant. The results indicate again that there exists little or no relationship between fund expenses and fund performance. The most significant relationship exists over the most recent 12 month period. This is similar to results seen in the previous section for overall performance.

- *TER and Fund classification Excess return for Fixed Income Funds*

Table 33

TER and fund classification excess return over the most recent 6 month period.	-0.01636
TER and fund classification excess return over the most recent 12 month period.	-0.02362
TER and fund classification excess return over the most recent 36 month period.	0.084823

The results for the fixed income fund classification are even more insignificant than those for the equity fund classification. However, as was seen in the previous section, the result over the most recent 36 month period is the most significant for the fixed income fund classification. The fact that the correlation coefficients for the relationship over the most recent 6 month and most recent 12 month periods are below 0.05 is an indication that little or no relationship exists between fees and performance over these time periods.

- *TER and fund classification outperformance for Balanced funds*

Table 34

TER and fund classification excess return over the most recent 6 month period.	0.003782
TER and fund classification excess return over the most recent 12 month period.	-0.14977
TER and fund classification excess	-0.19022

return over the most recent 36 month period.	

The relationship between fees and performance in the balanced fund classification is not as insignificant as that seen within the other two fund classifications when using this measure of performance. Again, within this fund classification, the relationship between fees and performance is marginally stronger than that for the other two fund classifications tested.

It would thus seem that there exists little or no significant relationship between fees and expenses when fund classification excess return is used as the measure of performance to test against TERs. The balanced fund classification exhibits a more significant relationship between expenses and performance than the equity and fixed income fund classifications over the most recent 12 month and 36 month time periods, but shows little or no relationship between the two variables over the most recent 6 month time period.

Relationships for funds which have performance fees

Table 35

TER and Annualised Return for the most recent 6 month period.	-0.15470
TER and Annualised Return for the most recent 12 month period.	-0.13758
TER and Annualised Return for the most recent 36 month period.	0.19614

The above table investigates the relationship between annualized returns on mutual funds and the expense ratios of those funds. The results are similar to those included in the following table, which investigates the relationship between fund classification excess return and fees. Therefore, a discussion of these relationships is included after the following table.

Table 36

TER and fund classification excess return for the most recent 6 month period.	-0.15908
TER and fund classification excess return for the most recent 12 month period.	-0.18246
TER and fund classification excess return for the most recent 36 month period.	0.24342

It can be seen that when funds which have performance fees included as a part of their fee structure are investigated for a relationship between performance and expenses, a greater correlation can be found than for those funds without a performance fee component. One would imagine that as fund performance improves, expenses would increase as management incentives are related to fund performance. The magnitude of the above correlation coefficients is of interest. While the relationship between fund performance and fees is negative for the shorter two time periods, the relationship is positive for the most recent three year time period. Over the most recent three year period, those funds with superior performance do indeed exhibit higher fees which is in line with expectations. However, over the most recent six month and one year time periods, the relationship between the variables is negative. This implies that fund expenses are actually lower as performance improves. A possible explanation for this relationship could lie in the fact that the total expense ratio is calculated as a percentage of assets under management. A superior performance fund could grow at a rate greater than that of a poor performing fund due to two reasons. One reason for this growth is that returns on the superior performing fund are

higher than those on the poor performing fund. A second reason lies in investors' money chasing the highest expected returns. If investors use past performance as an indicator of future performance of a fund, they are likely to put their money into funds which have performed well in the past. Thus, the flows of cash into mutual funds will be greater for those funds which have exhibited exceptional recent performance than for those funds which have underperformed.

If a fund grows its asset base at a rate which is misaligned with the growth in incentive fees related to fund performance, the TER is likely to decline due to the fact that total fund assets are growing at a greater rate than total expenses. This could explain the negative relationship exhibited above. However, the relationship identified is unlikely to be significant as the correlation coefficients are so low.

Using Fund classification Excess return over fund volatility as the performance measure

The following section performs the same tests as the above two sections, but once again modifies the measure of performance used in the analysis. For this section, the measure of performance is calculated as the fund classification excess return, as calculated in the previous section, divided by fund volatility. This gives a measure of risk to reward for each fund.

Table 37

TER and fund classification excess return over volatility for the most recent 6 month period.	-0.09795
TER and fund classification excess return over volatility for the most recent 12 month period.	-0.14669
TER and fund classification excess return	0.20935

over volatility for the most recent 36 month period.	

From the above table it can be seen that, once the measure of performance is modified to include a measure of the risk of the specified fund, the correlation between expenses and performances does not change significantly.

7. Conclusion

The descriptive statistics presented across the South African Mutual Fund Industry do not highlight any earth shattering figures. However, they do indeed manage to achieve an objective of this research, being the initial collection and collation of data across the South African Mutual Fund Industry.

The interesting results relate to the following:

- The lack of a relationship between fund expenses and fund performance, and
- The significantly higher expenses within the South African Mutual Fund Industry when compared to developed nations internationally.

This research has examined the relationship between mutual fund performance and expense ratios of South African mutual funds. In depth testing has been performed on many different levels in an attempt to establish a relationship between fund expenses and their performance over differing time horizons, and no relationship can be found. This is an indication that South African consumers need to pay more attention to the expenses charged by Mutual Funds in order to ensure that they are investing efficiently.

The existence of significantly higher expenses charged by South African Mutual Funds when compared to developed nations is an indication that our financial markets may not be as developed as we would like them to be. Again, consumers need to pay more attention to these charges as this is an indication that the South African consumer is being taken advantage of. This also highlights an area in which South African Mutual Funds can improve their offerings to consumers through being more efficient in their operations and thus providing greater net returns.

8. References

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9. Appendices

Appendix 1: Data

Table A1.1

This table summarises the data by fund and indicates the management company to which each fund belongs, the estimated size of the management company to which the fund belongs, the initial fee payable upon purchase of the fund, the Net Asset Value of one unit of the fund at 31 December 2009, the total market capitalization of the fund as at 31 December 2009 and the most recently published Total Expense Ratio of each fund prior to 31 December 2009.

Fund Name	Management company	Management company Size (Rm)	Initial Fee (%)	NAV	Fund Size (Rm)	TER (%)
Phire Defensive FoF	Phire	26.36	3.71	119.66	26.36	2.33
PSG Advance Wealth Preserver FoF - A	PSG	8686.79	2.28	1292.51	1868.76	2.56
PSG Alphen Prudential FoF	PSG	8686.79	2.57	1982.19	378.97	2.43
Investment Solutions M-M Balanced FoF	Investment Solutions	11255.2	3.42	202.45	45.15	1.87
Absa Inflation Beater - A	Absa	80979.49	0	136.65	408.74	1.5
Absa Inflation Beater - A	Absa	80979.49	0	136.65	408.74	1.5
Nedgroup Investments Optimal Income - A	Nedgroup	67126.12	0	138.03	765.52	1.14
Nedgroup Investments Optimal Income - A	Nedgroup	67126.12	0	138.03	765.52	1.14
Umbono Absolute Return - A	Umbono	430.96	0	141.23	179.77	1.5
Umbono Absolute Return - A	Umbono	430.96	0	141.23	179.77	1.5
Investec Absolute Balanced - A	Investec	94088.75	0	136.12	1534.64	1.71
Investec Absolute Balanced - A	Investec	94088.75	0	136.12	1534.64	1.71
Nedgroup Inv Quants Core Equity - A	Nedgroup	67126.12	3.42	362.23	590.71	1.17
Nedgroup Inv Quants Core Equity - R	Nedgroup	67126.12	3.42	363.07	590.71	0.88
Nedgroup Inv Equity - A	Nedgroup	67126.12	5.7	307.87	994.11	1.71
Nedgroup Inv Equity - R	Nedgroup	67126.12	5.7	309.33	994.11	1.12
Oasis Crescent Equity	Oasis	5778.69	5.13	577.69	3219.71	2.1
Oasis General Equity	Oasis	5778.69	5.13	457.01	482.72	1.71
Old Mutual High Yield Opportunity - A	Old Mutual	62683.27	5.7	1179.08	1513.85	1.42
Old Mutual Top Companies - R	Old Mutual	62683.27	5.7	1883.17	979.8	1.15
Stringfellow Stable FoF	Stringfellow	170.56	4.85	110.29	83.36	2.58
Alexander Forbes Moderate FoF	Alexander Forbes	262.68	4.52	139.11	92.23	1.44
Alexander Forbes Moderately Aggressive FoF	Alexander Forbes	262.68	4.52	120.28	33.48	1.73
Lynx Cautious FoF - A1	Lynx	2035.69	1.14	1297.92	466.53	2.42
STANLIB M-M All Stars Equity FoF - A	STANLIB	60848.62	5.7	116.35	181.5	2.11
Aylett Equity - A3	Aylett	99.19	0	1506.55	99.19	2.4
Foord Equity	Foord	3888.44	0	3310.31	576.79	2.3
Nedgroup Inv Value - A	Nedgroup	67126.12	5.7	3208.83	1876.93	1.66
Nedgroup Inv Value - R	Nedgroup	67126.12	5.7	3223.43	1876.93	1.12
Old Mutual Value - R	Old Mutual	62683.27	5.7	1274.46	893.22	1.15
RMB Value - A	RMB	25843.36	3.42	700	605.14	1.44
SIM Value	SIM	21660.71	5.7	1897.68	1344.47	1.75
STANLIB Value - A	STANLIB	60848.62	5.7	504.91	1436.07	1.71
Cadiz Mastermind - A	Cadiz	3727.34	3.42	141.19	61.11	2.53
Prudential Dividend Maximiser - A	Prudential	10628.04	3.7	527.45	1811.65	1.99
STANLIB M-M Bond Feeder - A	STANLIB	60848.62	1.14	107.31	42.86	1.02
Investment Solutions Pure Fixed Interest	Investment Solutions	11255.2	0.68	103.7	1133.3	0.93
Allan Gray Bond - A	Allan Gray	109416.3	3.42	1040.64	161.59	0.51
Personal Trust Active FoF	Personal Trust	2525.25	3.42	357.38	120.14	2.61
Dynamic Wealth Accumulator FoF - A1	Dynamic Wealth	4213.76	3.71	142.15	214.31	3.5
Metropolitan Odyssey Conservative FoF	Metropolitan	4705.15	3.71	118.32	30.27	1.85
STANLIB Dividend Income - A	STANLIB	60848.62	1.14	100.43	7479.7	1.16

STANLIB Flexible Income - A	STANLIB	60848.62	1.14	107.93	492.74	1.15
STANLIB Corporate Bond - A	STANLIB	60848.62	1.14	100.77	5.08	2.17
STANLIB Aggressive Income - A	STANLIB	60848.62	3.42	115.56	566.36	1.43
Coronation Strategic Income - A	Coronation	37233.9	3.42	1300.06	3117.25	1.12
Glacier Financial Solutions Conservative Multi-Managed	Glacier	2234.46	0.29	1267.34	1177.38	1.29
Old Mutual Enhanced Income - A	Old Mutual	62683.27	1.14	239.58	2493.27	1.14
PSG Alphen Optimal Income	PSG	8686.79	0.86	103.66	133.67	1.23
PSG Alphen Flexible - A	PSG	8686.79	2.57	3346.58	155.44	1.94
APS Moderate FoF - A	APS	1695.92	0	1057.67	1203.53	1.68
Absa Property Equity	Absa	80979.49	1.14	128.58	185.02	1.43
STANLIB M-M Property - A	STANLIB	60848.62	5.7	277.6	1265.21	1.49
STANLIB Property Income - A	STANLIB	60848.62	5.7	305.2	2518.86	1.48
Oasis Balanced	Oasis	5778.69	5.13	340.61	786.28	2.12
Old Mutual Real Income - A	Old Mutual	62683.27	1.14	211.53	353.46	1.4
ValuGro Property	ValuGro	627.25	1.14	162.91	179.47	2.15
Old Mutual Global Equity - R	Old Mutual	62683.27	5.7	615.11	1406.5	1.24
Quantum Conservative FoF - A	Quantum	1130.34	0	154.1	430.25	2.37
36One Flexible Opportunity	360ne	349.26	3.71	185.64	294.96	1.43
4i Stable FoF - A	4i	874.79	0.29	126.37	369.21	2.39
Absa Balanced - A	Absa	80979.49	5.7	296.64	767.05	1.71
STANLIB Balanced Trustees FoF - A	STANLIB	60848.62	5.7	143.62	1031.71	1.39
Old Mutual Four Plus Growth FoF - A	Old Mutual	62683.27	5.7	452.8	355.99	2.02
BlueAlpha All Seasons	BlueAlpha	56.77	0.29	163.61	56.77	1.76
Cadiz Managed Flexible - A	Cadiz	3727.34	3.42	120.11	42.66	2.2
SIM Balanced - A	SIM	21660.71	5.7	4345.34	1001.65	1.5
SIM Balanced - R	SIM	21660.71	5.7	4351.13	1001.65	1.23
STANLIB Balanced - A	STANLIB	60848.62	5.7	403.61	1306.06	1.93
STANLIB Balanced - R	STANLIB	60848.62	5.7	404.71	1306.06	1.36
STANLIB Balanced - B1	STANLIB	60848.62	5.7	404.71	1306.06	1.36
STANLIB Quants - A	STANLIB	60848.62	5.7	281.86	191.32	1.72
Contego B6 Protected Balanced	Contego	1022.2	4.28	126.52	59.06	1.85
Coronation Balanced Plus - A	Coronation	37233.9	3.42	4922.96	5310.34	1.56
FNB Balanced	FNB	1663.47	4.85	448.39	153.36	1.48
Interneuron Capital Managed	Interneuron	154.74	5.7	140.17	9.26	1.89
Matador Balanced - C	Matador	646.61	3.42	312.06	149.58	2.81
Metropolitan Absolute Provider	Metropolitan	4705.15	3.71	137.82	59.16	1.36
Old Mutual Balanced - R	Old Mutual	62683.27	5.7	835.88	1786.64	1.3
Prudential Balanced - A	Prudential	10628.04	3.7	313.26	419.87	1.81
RMB Balanced - A	RMB	25843.36	3.42	464.28	2379.28	1.47
RMB Balanced - R	RMB	25843.36	3.42	464.85	2379.28	1.18
STANLIB Dynamic Return - A	STANLIB	60848.62	5.7	111.21	248.07	1.71
Tri-Linear Balanced	Tri-Linear	1202.93	2.28	223.71	127.98	1.45
Coronation Absolute - A	Coronation	37233.9	3.42	2905.93	1412.15	1.52
Allan Gray Balanced - A	Allan Gray	109416.3	3.42	5172.76	32517.39	1.83
Old Mutual Dynamic Floor - A	Old Mutual	62683.27	5.7	315.93	2558.47	1.03
Dotport Dynamic Flexible FoF	Dotport	265.56	2.85	160.61	121.54	1.92
GCI Flexible FoF	GCI	478.89	3.71	154.4	198.72	1.65
STANLIB Moderately Aggressive FoF - A	STANLIB	60848.62	5.7	141.42	94.26	1.55
4i Balanced FoF - A	4i	874.79	0.29	135.37	95.22	2.87
AS Forum Moderate FoF	A S Forum	354.9	3.71	110.48	154.36	2.3
Crescent Balanced Progressive FoF	Crescent	2054.15	5.13	154.3	892.18	2.05
Dotport Dynamic Stable Prudential FoF	Dotport	265.56	2.85	148.65	64.01	1.98
GCI Balanced FoF	GCI	478.89	3.71	151.49	270.15	1.63
Matador Defensive FoF - C	Matador	646.61	3.42	280.27	120.91	2.69
Metropolitan Odyssey Balanced FoF	Metropolitan	4705.15	3.71	130.51	45.99	2.29
Noble PP Balanced FoF - A	Noble PP	1199.65	3.71	133.46	435.69	2.64
Noble PP Wealth Creator FoF - A	Noble PP	1199.65	3.71	143.06	114.27	2.74
Oasis Balanced Stable FoF	Oasis	5778.69	5.13	157.57	22.83	2.11
PSG Advance Wealth Moderate FoF - A	PSG	8686.79	2.28	1483.16	1407.37	2.8
Sentinel Diversified Income FoF	Sentinel	685.72	3.71	114.86	354.92	2.1
Sentinel Prudential FoF - A	Sentinel	685.72	3.71	148.31	199.29	3
SYmmETRY Defensive FoF - A	SYmmETRY	9533.33	5.7	412.43	4318.34	1.52
SYmmETRY Balanced FoF - A	SYmmETRY	9533.33	5.7	522.86	3566.59	1.9
Lynx Balanced FoF - A1	Lynx	2035.69	1.14	1567.57	448.49	3.3
Xhilarator Multi-SA Balanced FoF - A	Xhilirator	319.42	3.71	155.94	152.67	2.37
Efficient Prudential - A	Efficient	832.68	0	132.72	43.72	1.74
Hermes Flexible - R	Hermes	1006.82	0	170.98	26.82	1.32
Investec Managed - A	Investec	94088.75	0	489.02	4377.93	1.1
Investec Managed - R	Investec	94088.75	0	488.96	4377.93	1.15
Nedgroup Inv Managed - A	Nedgroup	67126.12	0	351.33	2603.56	1.77
Nedgroup Inv Managed - R	Nedgroup	67126.12	0	352.32	2603.56	1.23

Nedgroup Inv Balanced - A	Nedgroup	67126.12	0	2468.84	72.28	2.06
Prescient Balanced Quant Plus - A1	Prescient	17332.42	0	238.5	301.92	1.27
Rezco Value Trend	Rezco	111.54	0	2551.09	111.54	2.15
Foord Balanced	Foord	3888.44	0	2663.43	2790.22	1.3
Efficient Prudential FoF - A	Efficient	832.68	0	118.13	495.19	2.19
Momentum Builder FoF	Momentum	3098.37	0	1688.61	1.71	2.45
Umbono Stable Managed FoF	Umbono	430.96	0	148.03	1	1.2
Verso M-M Secure Growth FoF - A	Verso	2962.04	0	153.34	476.02	2.32
Analytics Moderate FoF - A	Analytics	3367.25	0	224.05	542.51	2.22
Analytics Balanced FoF - A	Analytics	3367.25	0	322.58	574.29	2.34
Marriott Prudential FoF - A	Marriott	6946.4	0	1749.13	562.67	2.19
Verso M-M Balanced Growth FoF - A	Verso	2962.04	0	189.89	545.87	2.6
Verso M-M Managed Equity FoF - A	Verso	2962.04	0	173.28	13.19	2.4
36One Target Return	360ne	349.26	3.71	157.06	27.15	1.67
36One Target Return	360ne	349.26	3.71	157.06	27.15	1.67
Absa Absolute	Absa	80979.49	3.42	119.82	1340.83	1.54
Absa Absolute	Absa	80979.49	3.42	119.82	1340.83	1.54
Advantage Real Return Core - A	Advantage	4553.3	5.7	171.72	1451.43	1.51
Advantage Real Return Core - A	Advantage	4553.3	5.7	171.72	1451.43	1.51
Cadiz Inflation Plus	Cadiz	3727.34	3.42	115.26	38.36	2.16
Cadiz Inflation Plus	Cadiz	3727.34	3.42	115.26	38.36	2.16
Cadiz Equity Ladder	Cadiz	3727.34	3.42	206.32	1470.46	3.12
Cadiz Equity Ladder	Cadiz	3727.34	3.42	206.32	1470.46	3.12
Centaur Flexible	Centaur	132.33	1.14	197.9	108.6	1.47
Contego B5 Protected Equity	Contego	1022.2	4.28	164.3	444.19	1.42
Contego B5 Protected Equity	Contego	1022.2	4.28	164.3	444.19	1.42
Dynamic Wealth Optimal - A	Dynamic Wealth	4213.76	3.71	109.1	363.11	1.43
Dynamic Wealth Optimal - A	Dynamic Wealth	4213.76	3.71	109.1	363.11	1.43
Element Real Income - A	Element	2330.56	3.42	155.71	520.5	1.39
Element Real Income - A	Element	2330.56	3.42	155.71	520.5	1.39
Investment Solutions Real Return Focus	Investment Solutions	11255.2	3.42	156.84	1187.71	1.24
Investment Solutions Real Return Focus	Investment Solutions	11255.2	3.42	156.84	1187.71	1.24
JMBusha Real Return	JMBusha	16.9	0.29	117.89	8.45	1.71
JMBusha Real Return	JMBusha	16.9	0.29	117.89	8.45	1.71
Kagiso Protector - A	Kagiso	103.23	3.42	1903.49	3.93	1.72
Kagiso Protector - A	Kagiso	103.23	3.42	1903.49	3.93	1.72
Peregrine Real Income - A1	Peregrine	1560.85	1.42	979.44	8.47	1.25
Peregrine Real Income - A1	Peregrine	1560.85	1.42	979.44	8.47	1.25
Prudential Inflation Plus - A	Prudential	10628.04	3.42	209.2	2759.18	1.64
RMB Absolute Focus - A	RMB	25843.36	3.42	140.59	2316.91	1.42
RMB Absolute Focus - A	RMB	25843.36	3.42	140.59	2316.91	1.42
RMB High Dividend - A	RMB	25843.36	3.42	104.98	211.74	1.41
RMB High Dividend - A	RMB	25843.36	3.42	104.98	211.74	1.41
Sasfin Wealth Preserver	Sasfin	71.54	3.71	115.65	3.18	2.54
SIM Inflation Plus	SIM	21660.71	2.28	325.75	1711.42	1.17
STANLIB Cash Plus - A	STANLIB	60848.62	0.29	100.8	3556.6	0.63
STANLIB Cash Plus - A	STANLIB	60848.62	0.29	100.8	3556.6	0.63
STANLIB M-M Real Return Feeder - A	STANLIB	60848.62	5.7	147.5	525.93	1.79
STANLIB M-M Real Return Feeder - A	STANLIB	60848.62	5.7	147.5	525.93	1.79
STANLIB Inflation Plus 3% - A	STANLIB	60848.62	5.7	102.65	55.86	1.79
STANLIB Inflation Plus 3% - A	STANLIB	60848.62	5.7	102.65	55.86	1.79
STANLIB Managed Flexible - A	STANLIB	60848.62	5.7	179.04	1180.8	1.82
STANLIB Managed Flexible - A	STANLIB	60848.62	5.7	179.04	1180.8	1.82
Absa Balanced - R	Absa	80979.49	5.7	297.44	767.05	1.16
Peregrine Inflation Plus 3 - A1	Peregrine	1560.85	3.42	1288.44	125.07	1.66
Peregrine Inflation Plus 3 - A1	Peregrine	1560.85	3.42	1288.44	125.07	1.66
Peregrine Inflation Plus 5 - A1	Peregrine	1560.85	3.42	1365.5	183.62	1.55
Peregrine Inflation Plus 5 - A1	Peregrine	1560.85	3.42	1365.5	183.62	1.55
Peregrine Inflation Plus 7 - A1	Peregrine	1560.85	3.42	1641	168.51	1.55
Peregrine Inflation Plus 7 - A1	Peregrine	1560.85	3.42	1641	168.51	1.55
Prudential Inflation Plus - A	Prudential	10628.04	3.42	209.2	2759.18	1.64
SIM Inflation Plus	SIM	21660.71	2.28	325.75	1711.42	1.17
Allan Gray Optimal - A	Allan Gray	109416.3	3.42	1581.38	2764.34	1.85
Allan Gray Optimal - A	Allan Gray	109416.3	3.42	1581.38	2764.34	1.85
Coronation Capital Plus - A	Coronation	37233.9	3.42	2499.11	5150.44	1.21
Coronation Capital Plus - A	Coronation	37233.9	3.42	2499.11	5150.44	1.21
Coronation SA Capital Plus - A	Coronation	37233.9	3.42	1932.39	305.2	1.45
Coronation SA Capital Plus - A	Coronation	37233.9	3.42	1932.39	305.2	1.45
4i Absolute Return FoF - A	4i	874.79	0.29	114.61	83.82	1.98
Dinamika Conservative FoF	Dinamika	132.08	3.99	114	66.04	2.42

Dinamika Conservative FoF	Dinamika	132.08	3.99	114	66.04	2.42
PSG Advance Wealth Preserver FoF - A	PSG	8686.79	2.28	1292.51	1868.76	2.56
SMMI Defensive FoF	SMMI	1195.27	5.7	1759.38	227.14	1.98
SMMI Defensive FoF	SMMI	1195.27	5.7	1759.38	227.14	1.98
STANLIB M-M Medium Equity FoF - A	STANLIB	60848.62	5.7	193.28	666.04	2.05
STANLIB M-M High Equity FoF - A	STANLIB	60848.62	5.7	222.06	126.58	2.13
4i Absolute Return FoF - A	4i	874.79	0.29	114.61	83.82	1.98
Baroque Moderato FoF	Baroque	65.86	3.71	115.78	65.86	2.58
Investec Opportunity - R	Investec	94088.75	0	571.62	7910.15	1.21
Sygnia Alpha Plus - A	Sygnia	276.38	0	147.06	138.19	1.24
Sygnia Alpha Plus - A	Sygnia	276.38	0	147.06	138.19	1.24
Nedgroup Inv Positive Return - A	Nedgroup	67126.12	0	119.82	4254.92	1.1
Nedgroup Inv Positive Return - A	Nedgroup	67126.12	0	119.82	4254.92	1.1
Momentum Dynamic Asset Allocator FoF - B1	Momentum	3098.37	0	1665.34	90.89	2.52
Momentum Dynamic Asset Allocator FoF - B1	Momentum	3098.37	0	1665.34	90.89	2.52
RMB Private Bank Defensive FoF - B1	RMB	25843.36	0	118.77	377.17	2.52
RMB Private Bank Defensive FoF - B1	RMB	25843.36	0	118.77	377.17	2.52
SMMI Protection Solution 3 FoF - A	SMMI	1195.27	0	1015.87	137.05	1.29
SMMI Protection Solution 3 FoF - A	SMMI	1195.27	0	1015.87	137.05	1.29
SMMI Absolute Solution 5 FoF - A	SMMI	1195.27	0	1044.65	90.47	1.63
SMMI Absolute Solution 5 FoF - A	SMMI	1195.27	0	1044.65	90.47	1.63
SMMI Long Term Growth Solution 7 FoF - A	SMMI	1195.27	0	1070.67	44.48	1.86
SMMI Long Term Growth Solution 7 FoF - A	SMMI	1195.27	0	1070.67	44.48	1.86
APS Managed Growth FoF - A	APS	1695.92	0	1056.82	183.92	1.77
Quantum Balanced FoF - A	Quantum	1130.34	0	155.49	79.75	2.42
Coronation Financial - A	Coronation	37233.9	3.42	2556.13	197.09	1.48
Nedgroup Inv Financials - A	Nedgroup	67126.12	5.7	8830.73	156.85	1.83
Nedgroup Inv Financials - R	Nedgroup	67126.12	5.7	8871.81	156.85	1.28
Old Mutual Financial Services - R	Old Mutual	62683.27	5.7	702.93	480.38	1.15
RMB Financial Services - A	RMB	25843.36	3.42	244.01	460.91	1.43
Satrix FINI - A	Satrix	10004.76	0.1	743	1057.9	0.45
SIM Financial	SIM	21660.71	5.7	2889.05	224.05	1.83
STANLIB Financials - A	STANLIB	60848.62	5.7	222.96	150.91	1.71
Coronation Market Plus - A	Coronation	37233.9	3.42	3775.57	1371.8	1.8
Avocado Dynamic FoF - A	Avocado	129.45	5.7	155.32	74.91	2.23
Noble PP All Weather FoF - A	Noble PP	1199.65	3.71	131.22	24.26	2.94
Absa Flexible	Absa	80979.49	0.28	253.25	235.73	0.93
Absa Select Equity	Absa	80979.49	3.42	312.32	800.96	1.32
Absa General - R	Absa	80979.49	5.7	693.36	1254.24	1.74
Cannon Equity	Cannon	179.97	3.71	188.51	168.44	1.58
Community Growth - A	Community	3791.68	5.7	762.6	2643.31	0.57
Coris Capital General Equity - A	Coris	1919.28	4.56	287.12	136.08	1.63
Coronation Equity - R	Coronation	37233.9	3.42	6957.44	2259.91	1.14
Coronation Equity - A	Coronation	37233.9	3.42	6947.96	2259.91	1.43
Element Earth Equity - A	Element	2330.56	3.42	402.72	514.69	1.72
Element Islamic Equity - A	Element	2330.56	3.42	139.86	120.13	1.72
FNB Growth	FNB	1663.47	4.85	691.93	170.24	1.53
Futuregrowth Albaraka Equity - A	Futuregrowth	884.02	5.13	979.49	884.02	1.86
Harvard House General Equity	Harvard	71.21	3.71	115.43	29.19	1.61
Interneuron Capital Equity	Interneuron	154.74	5.7	176.22	31.92	1.71
Kagiso Equity Alpha - A	Kagiso	103.23	3.42	346.11	17.21	4.08
Maestro Equity - A	Maestro	27.09	2.28	1590.64	27.09	2.58
Marriott Dividend Growth - R	Marriott	6946.4	3.99	4161.82	580.76	1.15
Melville Douglas Dynamic Strategy - A	Melville Douglas	92.54	2.85	239	92.54	1.62
Metropolitan General Equity	Metropolitan	4705.15	3.71	815.13	385.44	1.44
Nedgroup Inv Rainmaker - A	Nedgroup	67126.12	5.7	6505.95	9975.71	1.67
Nedgroup Inv Rainmaker - R	Nedgroup	67126.12	5.7	6541.87	9975.71	1.11
Old Mutual Investors - R	Old Mutual	62683.27	5.7	20059.91	8025.24	1.13
Old Mutual Growth - R	Old Mutual	62683.27	5.7	1699.1	1388.28	1.15
Peregrine Beta Equity - B2	Peregrine	1560.85	3.71	1232.81	424.45	0.54
PSG Alphen Growth - A	PSG	8686.79	2.57	415.65	530.91	1.76
RMB High Tide - A	RMB	25843.36	3.42	379.14	357.17	1.72
RMB Equity - A	RMB	25843.36	3.42	2107.04	2505.84	1.48
RMB Equity - R	RMB	25843.36	3.42	2109.87	2505.84	1.19
Sasfin TwentyTen	Sasfin	71.54	3.71	139.41	35.84	1.55
SIM General Equity - A	SIM	21660.71	5.7	10039.23	1180.11	1.39
SIM General Equity - R	SIM	21660.71	5.7	10052.38	1180.11	1.13
STANLIB M-M Equity - A1	STANLIB	60848.62	5.7	481.73	1647.58	1.94
STANLIB Equity - A	STANLIB	60848.62	5.7	11725.31	2116.21	1.75
STANLIB Equity - R	STANLIB	60848.62	5.7	11757.11	2116.21	1.18
STANLIB Index - R	STANLIB	60848.62	5.7	464.48	112.66	0.64
STANLIB Prosperity - A	STANLIB	60848.62	5.7	416.98	1350.38	1.76

STANLIB Prosperity - R	STANLIB	60848.62	5.7	418.27	1350.38	1.19
Tri-Linear Equity	Tri-Linear	1202.93	2.28	240.48	18.53	1.79
RMB Conservative - A	RMB	25843.36	3.42	125.75	717.74	1.46
RMB Moderate - A	RMB	25843.36	3.42	129.38	173.6	1.47
Allan Gray Equity - A	Allan Gray	109416.3	3.42	16146.06	21547.47	3.15
Investment Solutions M-M Equity	Investment Solutions	11255.2	3.42	316.38	152.59	2.53
Prudential Equity - A	Prudential	10628.04	3.7	532.05	1520.58	1.97
SIM Top Choice Equity - A1	SIM	21660.71	4.56	1398.31	344.82	1.39
ValuGro General Equity	ValuGro	627.25	1.43	213.01	314.06	1.67
Absa Growth FoF	Absa	80979.49	4.56	347.43	107.93	3.57
Capstone Active Equity FoF	Capstone	73.75	3.71	206.48	73.75	2.54
FG Saturn Flexible FoF - A	FG	1874.09	2.85	1422.83	830.08	1.42
FG Mercury Equity FoF - A	FG	1874.09	2.85	1468.94	190.59	1.94
Glacier Financial Solutions Flexible M-M FoF	Glacier	2234.46	0.29	2054.31	46.49	1.77
Matador Equity FoF - C	Matador	646.61	3.42	358.32	192.43	2.42
Personal Trust Prudent FoF - A	Personal Trust	2525.25	3.42	230.48	760.1	2.75
PSG Macro Active FoF	PSG	8686.79	2.57	2420.3	75.72	2.19
PSG Alphen Equity FoF - A	PSG	8686.79	2.57	353.32	372.66	3.02
SMMI Balanced FoF - A	SMMI	1195.27	5.7	2799.43	130.25	1.8
SMMI Equity FoF	SMMI	1195.27	5.7	3638.09	66.74	1.87
SYmmETRY Equity FoF - A	SYmmETRY	9533.33	5.7	543.95	172.88	1.45
Dynamic Wealth Preserver FoF - A1	Dynamic Wealth	4213.76	3.71	137.58	448.4	3.5
Dynamic Wealth Preserver FoF - A	Dynamic Wealth	4213.76	3.71	141.07	448.4	1.69
Dynamic Wealth Accumulator FoF - A	Dynamic Wealth	4213.76	3.71	146.55	214.31	1.75
Dynamic Wealth Creator FoF - A	Dynamic Wealth	4213.76	3.71	133.55	37.06	1.86
Platinum Balanced Prudential FoF	Platinum	172.85	3.71	135.19	90.75	3.03
Select Manager Flexible Growth FoF - A	Select Manager	1681.22	2.85	194.23	191.05	2.19
SIM Managed Cautious FoF - A1	SIM	21660.71	4.84	1168.65	619.25	1.21
Analytics Managed Equity - A	Analytics	3367.25	0	321.6	1125.1	1.63
Gryphon All Share Tracker - A	Gryphon	842.28	0	331.65	38.96	0.67
Hermes Equity - A	Hermes	1006.82	0	198.18	476.59	1.19
Hermes Equity - R	Hermes	1006.82	0	198.36	476.59	0.9
Huysamer Equity - A	Huysamer	56.03	0	1228.86	28.71	1.52
Indequity Technical	Indequity	117.82	0	210.18	35.26	1.53
Investec Equity - R	Investec	94088.75	0	2225.71	4436.55	1.13
Investec Active Quants - R	Investec	94088.75	0	502.76	297.25	0.43
Osborne Flexible - A1	Osborne	450.58	0	1951.42	347.86	1.46
Osborne Equity - A1	Osborne	450.58	0	1252.63	20.9	1.98
Prescient Equity Active Quant - A1	Prescient	17332.42	0	1130.47	228.01	1.22
Prescient Equity Quant - A1	Prescient	17332.42	0	320.08	507.92	0.64
RMB Private Bank Equity - A	RMB	25843.36	0	335.61	294.68	0.63
Investec Equity - A	Investec	94088.75	0	2226.65	4436.55	1.5
Investec Active Quants - A	Investec	94088.75	0	503.46	297.25	1.37
Kruger Flexible FoF - A	Kruger	1493.24	0	1234.13	100.23	2.15
Momentum Aggressive Prudential FoF - B1	Momentum	3098.37	0	2481.75	104.61	2.36
Momentum Accumulator FoF	Momentum	3098.37	0	2031.87	2.73	2.25
Momentum Moderate Equity FoF - B1	Momentum	3098.37	0	3577.48	239.01	2.39
Momentum Aggressive Equity FoF - B1	Momentum	3098.37	0	3632.02	167.28	2.38
Momentum Multifocus FoF	Momentum	3098.37	0	3477.25	1223.6	2.46
RMB Private Bank Growth FoF - B1	RMB	25843.36	0	133.17	300.53	2.23
Analytics Cautious FoF - A	Analytics	3367.25	0	162.64	933.69	2
Kruger Prudential FoF - A	Kruger	1493.24	0	1156.96	227.84	1.59
Kruger Balanced FoF - A	Kruger	1493.24	0	1114.95	402.18	1.83
Quantum Capital Plus FoF - A	Quantum	1130.34	0	142.17	267.43	2.32
Nedgroup Inv Growth - A	Nedgroup	67126.12	5.7	1307.56	1049.67	1.71
Nedgroup Inv Growth - R	Nedgroup	67126.12	5.7	1313.65	1049.67	1.15
Old Mutual Flexible - R	Old Mutual	62683.27	5.7	785.44	463.66	1.37
RMB Strategic Opportunities - A	RMB	25843.36	3.42	509.24	317.92	1.45
RMB Strategic Opportunities - R	RMB	25843.36	3.42	509.9	317.92	1.16
SIM Growth - A	SIM	21660.71	5.7	1902.51	652.78	1.92
SIM Growth - R	SIM	21660.71	5.7	1907.46	652.78	1.22
STANLIB Growth - A	STANLIB	60848.62	5.7	404.82	703.3	1.73
STANLIB Growth - R	STANLIB	60848.62	5.7	406.96	703.3	1.16
Investec Growth - R	Investec	94088.75	0	2844.63	956.96	1.15
Investec Growth - B	Investec	94088.75	0	2853.54	956.96	0.77
Investec Growth - A	Investec	94088.75	0	2850.61	956.96	1.01
Coronation Industrial	Coronation	37233.9	3.42	5509.34	88.36	1.24
Metropolitan Industrial	Metropolitan	4705.15	3.71	135.48	56.28	1.49
Old Mutual Industrial - A	Old Mutual	62683.27	5.7	985.86	669.9	1.41
RMB Industrial - A	RMB	25843.36	3.42	439.94	162.59	1.47
Satrix INDI - A	Satrix	10004.76	0.1	2177	601.06	0.45

SIM Industrial - A	SIM	21660.71	5.7	5496.43	568.09	1.69
SIM Industrial - R	SIM	21660.71	5.7	5511.05	568.09	1.14
STANLIB Industrial - A	STANLIB	60848.62	5.7	924.2	507.73	1.71
STANLIB Industrial - R	STANLIB	60848.62	5.7	928.67	507.73	1.14
STANLIB Moderately Conservative FoF - A	STANLIB	60848.62	5.7	127.68	416.98	1.31
Select Manager Prudential Active FoF - A	Select Manager	1681.22	2.85	178.01	549.25	2.09
Momentum Consolidator FoF	Momentum	3098.37	0	1631.17	1.69	2.17
Cannon Core Companies	Cannon	179.97	3.71	135.35	11.53	1.43
Old Mutual Top 40 - A	Old Mutual	62683.27	5.7	507.55	255.87	0.75
RMB Top 40 Index - A	RMB	25843.36	3.42	353.33	315.12	0.87
Satrix SWIX TOP 40 - A	Satrix	10004.76	0.1	529	270.49	0.45
Satrix 40 - A	Satrix	10004.76	0.1	2526	6380.39	0.5
SIM Index	SIM	21660.71	5.7	6872.78	1379.85	1.14
STANLIB ALSI 40 - A	STANLIB	60848.62	5.7	296.6	625.29	0.5
Coronation Top 20 - A	Coronation	37233.9	3.42	6315.65	3265.75	2.2
AS Forum Aggressive FoF	A S Forum	354.9	3.71	111.27	132.24	2.39
Kagiso Top 40 Tracker - R	Kagiso	103.23	0	3398.04	69.77	0.67
Momentum Balanced Prudential FoF - B1	Momentum	3098.37	0	2390.52	555.56	2.01
Coronation Resources - A	Coronation	37233.9	3.42	7750.32	192.08	1.2
Metropolitan Resources	Metropolitan	4705.15	3.71	786.32	103.15	1.47
Nedgroup Inv Mining & Resource - A	Nedgroup	67126.12	5.7	1210.06	684.05	1.64
Nedgroup Inv Mining & Resource - R	Nedgroup	67126.12	5.7	1215.09	684.05	1.08
Old Mutual Gold - R	Old Mutual	62683.27	5.7	855.03	627.54	1.16
Old Mutual Mining and Resources - R	Old Mutual	62683.27	5.7	6782.64	1551.41	1.16
RMB Resources	RMB	25843.36	3.42	1642.69	173.31	1.93
Satrix RESI - A	Satrix	10004.76	0.1	5174	540.86	0.54
STANLIB Gold and Precious Metals - R	STANLIB	60848.62	5.7	604.07	317.77	1.21
STANLIB Gold and Precious Metals - A	STANLIB	60848.62	5.7	597.55	317.77	1.8
STANLIB Resources - A	STANLIB	60848.62	5.7	2472.46	735.52	1.72
STANLIB Resources - R	STANLIB	60848.62	5.7	2479.87	735.52	1.15
Investec Commodity - A	Investec	94088.75	0	1421.06	716.77	1.75
Investec Commodity - R	Investec	94088.75	0	1424.79	716.77	1.17
Umbono Moderate Managed FoF	Umbono	430.96	0	157.23	6.71	0.96
Coronation Smaller Companies - R	Coronation	37233.9	3.42	3626.62	134.24	1.2
Nedgroup Inv Entrepreneur - A	Nedgroup	67126.12	5.7	585.92	723.08	1.72
Nedgroup Inv Entrepreneur - R	Nedgroup	67126.12	5.7	589.13	723.08	1.15
Old Mutual Small Companies - R	Old Mutual	62683.27	5.7	863.81	553.98	1.15
RMB Small Mid-Cap - A	RMB	25843.36	3.42	609.71	262.78	1.75
SIM Small Cap - A	SIM	21660.71	5.7	3164.27	337.32	1.84
SIM Small Cap - R	SIM	21660.71	5.7	3172.48	337.32	1.28
STANLIB Small Cap - R	STANLIB	60848.62	5.7	140	185.52	1.16
STANLIB Small Cap - A	STANLIB	60848.62	5.7	139.17	185.52	1.74
Absa Allrounder FoF	Absa	80979.49	4.56	320.11	269.79	3.5
Absa Prudential FoF	Absa	80979.49	4.56	170.1	162.51	3.36
Investec Emerging Companies - R	Investec	94088.75	0	626.06	767.03	1.16
Investec Emerging Companies - A	Investec	94088.75	0	625.21	767.03	1.73
Metropolitan High Dividend	Metropolitan	4705.15	3.71	209.07	78.75	1.29
STANLIB Aggressive FoF - A	STANLIB	60848.62	5.7	147.58	57.94	1.63
Alexander Forbes Aggressive FoF	Alexander Forbes	262.68	4.52	160.19	25.33	1.89
Investec Value - R	Investec	94088.75	0	791.39	6970.23	1.14
Investec Value - A	Investec	94088.75	0	784.94	6970.23	3.7
Absa Rand Protector	Absa	80979.49	5.7	356.73	101.38	1.03
Personal Trust High Yield Growth	Personal Trust	2525.25	3.42	213.92	499.6	1.4
Select Manager Defensive Equity FoF	Select Manager	1681.22	2.85	147.39	105.06	2.62
Umbono Balanced - A	Umbono	430.96	0	161.13	63.27	1.75
Absa Bond - A	Absa	80979.49	1.14	112.87	61.65	0.89
Community Gilt - A	Community	3791.68	1.14	140.77	1125.26	0.57
Coris Capital Gilt - A	Coris	1919.28	1.14	119.83	0.6	0.9
Coronation Bond - R	Coronation	37233.9	3.42	1280.02	257.15	0.86
Metropolitan Gilt	Metropolitan	4705.15	1.43	134.38	198.71	0.84
Oasis Bond	Oasis	5778.69	2.28	103.41	632.73	0.02
Old Mutual Bond - R	Old Mutual	62683.27	1.14	340.55	464.44	0.87
Prudential High Yield Bond - A	Prudential	10628.04	1.14	125.49	172.98	0.9
RMB Bond - A	RMB	25843.36	3.42	150.98	314.47	0.89
SIM Bond Plus	SIM	21660.71	1.71	774.15	122.49	0.89
STANLIB Bond - A	STANLIB	60848.62	1.14	158.25	687.04	0.86
STANLIB Bond - R	STANLIB	60848.62	1.14	158.25	687.04	0.86
Nedgroup Inv Bond - R	Nedgroup	67126.12	0	147.96	273.05	0.62
Nedgroup Inv Bond - A	Nedgroup	67126.12	0	147.96	273.05	0.62
Investec Gilt - A	Investec	94088.75	0	187.13	1547.27	1.14
Investec Gilt - R	Investec	94088.75	0	187.26	1547.27	0.87
Coronation Income	Coronation	37233.9	0.86	1098.9	79.1	0.9

Old Mutual Income - R	Old Mutual	62683.27	1.14	120.55	1253.19	0.86
RMB Maximum Income - A	RMB	25843.36	0.57	107.86	1841.93	0.87
STANLIB Extra Income - R	STANLIB	60848.62	0.57	89.25	502.99	0.72
STANLIB M-M Income Feeder - A	STANLIB	60848.62	1.14	103.12	268.44	1.09
STANLIB Income - R	STANLIB	60848.62	1.14	137.88	3918.25	0.86
Investment Solutions Income	Investment Solutions	11255.2	0.68	102.09	792.63	1.05
Coronation Cash Plus - A	Coronation	37233.9	0	101.34	76.2	0.7
Investec High Income - A	Investec	94088.75	0	118.07	682.9	1.15
Investec High Income - R	Investec	94088.75	0	118.15	682.9	0.87
STANLIB Conservative FoF - A	STANLIB	60848.62	5.7	116.09	403.15	1.11
Old Mutual Four Plus Capital FoF - A	Old Mutual	62683.27	5.7	280.95	38.1	2.19
Absa Dividend Income - A	Absa	80979.49	0.57	101.19	12106.88	1.68
Cadiz Absolute Yield - A	Cadiz	3727.34	3.42	105.13	605.93	0.8
Harvard House Flexible Income	Harvard	71.21	3.71	106.43	42.02	1.23
Imalivest Flexible	Imalivest	104.65	3.71	129.82	51.27	1.55
Investment Solutions Superior Cash	Investment Solutions	11255.2	0.68	101.48	4495.23	0.61
Marriott Income - R	Marriott	6946.4	3.99	109.19	697.56	0.87
Marriott Core Income - A	Marriott	6946.4	3.99	127.88	874.72	1.15
Metropolitan Inflation Linked Bond - A	Metropolitan	4705.15	1.14	132.32	369.16	0.9
Personal Trust Income	Personal Trust	2525.25	3.42	128.99	424.63	1.15
PSG Preferred Dividend	PSG	8686.79	2.57	88.85	22.39	1.44
RMB Diversified Yield - A	RMB	25843.36	3.42	110.2	436.65	1.24
RMB Income Plus - A	RMB	25843.36	1.14	107.39	1386.25	1.13
SIM Absolute Return Income	SIM	21660.71	2.28	115.46	1490.53	1.12
Sasfin Balanced	Sasfin	71.54	3.71	106.95	12.55	1.92
SIM Active Income - A1	SIM	21660.71	1.71	1088.83	1894.03	0.83
N-e-FG Balanced	N-e-FG	272.41	1.71	120.13	63.59	2.1
FG Jupiter Income FoF - A	FG	1874.09	2.85	1073.69	470.87	0.98
IMC HiYield FoF	IMC	59.87	3.71	108.69	40.35	2.08
Matador Fixed Interest FoF - C	Matador	646.61	3.42	205.93	183.69	2.45
Old Mutual Four Plus Secure FoF - A	Old Mutual	62683.27	5.7	208.33	34.15	2.04
Noble PP Strategic Income FoF - A	Noble PP	1199.65	3.71	120.63	386.12	2.36
Platinum Income Provider FoF	Platinum	172.85	3.71	114.73	66.87	2.37
PSG Advance Wealth Income FoF - A	PSG	8686.79	2.28	1085.37	245.72	2.04
PSG Alphen Income FoF - A	PSG	8686.79	0.86	157.13	342.88	2.02
SYmmETRY Fixed Interest FoF - A	SYmmETRY	9533.33	0.68	226.32	254.72	1.19
Alexander Forbes Conservative FoF	Alexander Forbes	262.68	4.52	129.89	54.73	1.39
Xhilarator Multi-SA Flexible FoF - A	Xhilirator	319.42	3.71	162.74	166.75	2.57
Absa Income Enhancer - A	Absa	80979.49	0	109.21	578.14	0.63
Coronation Preference Share - A	Coronation	37233.9	0	87.63	372.13	0.7
Huysamer Flexible - A	Huysamer	56.03	0	1138.76	6.45	2.3
Nedgroup Inv Flexible Income - R	Nedgroup	67126.12	0	1384.82	6057.61	0.86
Prescient Cash QuantPlus - A2	Prescient	17332.42	0	102.4	7686.14	0.49
Prescient Cash QuantPlus - A1	Prescient	17332.42	0	102.38	7686.14	0.58
Tri-Linear Cash Plus	Tri-Linear	1202.93	0	112.61	1056.42	1.14
Investec Absolute Income - A	Investec	94088.75	0	112.06	2560.32	1.14
Investec Cash Plus - A	Investec	94088.75	0	106.43	1042.3	1.14
Investec Opportunity Income - A	Investec	94088.75	0	147.47	2968.09	1.14
Nedgroup Inv Flexible Income - A	Nedgroup	67126.12	0	1384.36	6057.61	0.93
PSG Tanzanite Flexible	PSG	8686.79	0	191.12	411.57	1.43
Marriott High Income FoF - A	Marriott	6946.4	0	1171.62	2042.3	1.37
Verso M-M Income Planner FoF - A	Verso	2962.04	0	114.83	713.32	1.73
APS Cautious FoF - A	APS	1695.92	0	1072.09	308.47	1.43
Element Flexible - A	Element	2330.56	3.42	279.2	653.49	1.73
Investec High Income Namibia - A	Investec	94088.75	0.5	110.88	597.77	1.01
Investec Managed Namibia - R	Investec	94088.75	5	294.94	514.37	1.2
Old Mutual Namibia Dynamic Floor	Old Mutual	62683.27	5	263.83	87.1	1.55
Old Mutual Namibia Managed	Old Mutual	62683.27	5	505.92	58.1	1.2
Old Mutual Namibia Growth	Old Mutual	62683.27	5	1135.59	82.21	1.07
Allan Gray Stable - A	Allan Gray	109416.3	3.42	2218.84	30556.85	1.36
STANLIB Moderate FoF - A	STANLIB	60848.62	5.7	131.95	401.81	1.4
Glacier Financial Solutions Moderate M-M FoF	Glacier	2234.46	0.29	1839.81	893.62	1.51
Flagship Domestic Flexible - A	Flagship	847.56	0	130.13	187.63	1.96
Investec Opportunity - A	Investec	94088.75	0	566.83	7910.15	3.75
Catalyst SA Property Equity - A	Catalyst	212.37	2.28	182.84	188.95	1.19
Coronation Property Equity - A	Coronation	37233.9	3.42	2821.62	924.16	1.43
Dynamic Wealth Property - A	Dynamic Wealth	4213.76	3.71	153.27	165.36	1.85
Dynamic Wealth Property - A1	Dynamic Wealth	4213.76	3.71	152.35	165.36	2.84
Investec Property Equity - A	Investec	94088.75	3.42	254.1	1958.29	1.42
Investment Solutions Property Equity	Investment	11255.2	3.42	220.41	2162.72	1.5

	Solutions					
Marriott Property Equity - R	Marriott	6946.4	3.99	933.42	728.51	1.15
Marriott Property Income - A	Marriott	6946.4	3.99	868.13	723.75	1.15
Metropolitan Property Income	Metropolitan	4705.15	3.71	202.29	287.83	1.69
N-e-FG Property Income	N-e-FG	272.41	1.71	105.63	19.61	1.93
Oasis Property Equity	Oasis	5778.69	5.13	325.77	197.36	1.68
Old Mutual SA Quoted Property - A	Old Mutual	62683.27	5.7	480.51	1498.94	1.43
Prudential Enhanced SA Property Tracker-A	Prudential	10628.04	2.85	140.39	346.75	0.78
RMB Property - A	RMB	25843.36	3.42	197.47	506.44	1.44
SIM Property - A	SIM	21660.71	5.7	2189.03	1187.2	1.7
STANLIB M-M Flexible Property - A	STANLIB	60848.62	5.7	159.92	1144.96	1.49
Ankh Flexible FoF - A	Ankh	150.77	3.71	81.46	6.44	1.97
STANLIB M-M Low Equity FoF - A	STANLIB	60848.62	5.7	153.63	1059.68	1.93
AS Forum Cautious FoF	A S Forum	354.9	3.71	108.52	68.3	2.16
Avocado Defensive FoF - A	Avocado	129.45	5.7	132.46	54.54	2.26
N-e-FG Income Provider FoF	N-e-FG	272.41	1.71	116.77	146.47	2.61
Alexander Forbes Balanced FoF	Alexander Forbes	262.68	4.52	146.77	56.91	1.57
SIM Managed Conservative FoF - A1	SIM	21660.71	4.84	1090.8	207.25	1.21
SIM Managed Moderate FoF - A1	SIM	21660.71	4.84	1291.22	939.37	1.23
SIM Managed Moderate Aggressive FoF - A1	SIM	21660.71	4.84	1218.36	210.2	1.31
SIM Managed Aggressive FoF - A1	SIM	21660.71	4.84	1310.45	118.96	1.32
Hermes Flexible - A	Hermes	1006.82	0	170.94	26.82	1.6
RCI Flexible Managed - A	RCI	204.12	0	201.56	204.12	1.63
Investec Cautious Managed - A	Investec	94088.75	0	115.23	3136.02	1.82
Momentum Balanced Income FoF - B1	Momentum	3098.37	0	1339.39	610.34	1.65
Marriott International Growth Feeder - A	Marriott	6946.4	3.99	753.68	154.53	1.98
Ankh Foreign Flexible FoF - A	Ankh	150.77	3.71	142	133.94	2.82
Midas Foreign Flexible FoF - A	Midas	84.01	4.28	142.2	84.01	2.41
Old Mutual Intl Growth FoF - A	Old Mutual	62683.27	5.7	199.17	124.75	2.91
RMB International Balanced FoF - A	RMB	25843.36	3.42	139.2	151.34	1.54
RMB Intl Conservative FoF - A	RMB	25843.36	3.42	105.82	119.28	1.43
Sanlam Intl Balanced FoF	Sanlam	3135.13	5.7	1183.83	106.07	2.05
Select Manager Global Growth FoF - A	Select Manager	1681.22	2.85	123.4	186.01	2.33
Absa Cautious FoF - A	Absa	80979.49	5.7	144.5	48.9	1.06
Allan Gray-Orbis Global FoF - A	Allan Gray	109416.3	3.42	1389.14	6796.67	2.23
RMB Private Bank Global Flexible FoF - B1	RMB	25843.36	0	100.29	74.62	3.21
Umbono Core Managed FoF	Umbono	430.96	0	151.87	0.44	1.33
Absa International - A	Absa	80979.49	5.7	184.23	125.3	1.67
Absa International - R	Absa	80979.49	5.7	184.82	125.3	1.13
Nedgroup Inv Global Equity Feeder - A	Nedgroup	67126.12	5.7	237.81	250.89	2.13
Nedgroup Inv Intl Equity Feeder - R	Nedgroup	67126.12	5.7	165.38	106.78	1.9
Old Mutual Global Equity - A	Old Mutual	62683.27	3.42	605.12	1406.5	2.12
Sanlam Global Equity - R	Sanlam	3135.13	5.7	265.43	916.29	1.38
Sanlam Global Equity - A	Sanlam	3135.13	5.7	258.41	916.29	2.1
SIM World Big Blue Chip - A1	SIM	21660.71	4.84	829.27	71.74	1.57
Allan Gray-Orbis Global Equity Feeder - A	Allan Gray	109416.3	3.42	1734.6	3761.58	2.4
Old Mutual Futuregrowth Global Index FoF - R	Old Mutual	62683.27	5.7	408.3	38.87	1.59
Sentinel Flexible FoF - A	Sentinel	685.72	3.71	167.21	90.89	3.35
db x-trackers FTSE 100 Index ETF	Crescent	2054.15	0	6416	327.22	1.14
db x-trackers DJ Eurostoxx 50 Index ETF	Crescent	2054.15	0	3169	389.79	1.14
Investec Worldwide Equity Feeder - R	Investec	94088.75	0	332.91	1622.38	1.13
Nedgroup Inv Intl Equity Feeder - A	Nedgroup	67126.12	0	165.29	106.78	1.25
RMB Global	RMB	25843.36	0	926.68	171.08	2.2
Momentum Global Accumulator FoF - B1	Momentum	3098.37	0	106.65	3.2	3.83
Fortress REIT - A	Fortress	86.25	3.42	587.7	86.25	2.31
Marriott International Real Estate Feeder - A	Marriott	6946.4	3.99	214.2	155.09	1.42
Sanlam Pan Europe	Sanlam Pan Europe	110.13	5.7	252.66	110.13	2.49
STANLIB Intl Property - A	STANLIB	60848.62	5.7	116.49	184.6	3.6
Sanlam Asia Pacific FoF	Sanlam	3135.13	5.7	1036.97	91.69	2.14
Absa Global Bond - A	Absa	80979.49	1.14	132.9	104.42	1.39
Coris Capital Intl Bond Feeder - A	Coris	1919.28	2.28	142.15	8.38	2.77
Old Mutual Global Bond Feeder - A	Old Mutual	62683.27	1.14	301.85	70.33	1.75
RMB International Bond - A	RMB	25843.36	3.42	144.63	28.96	1.81
Prudential Global High Yield Bond FoF	Prudential	10628.04	1.43	148.71	379.69	1.89
STANLIB US Dollar Bond FoF - A	STANLIB	60848.62	3.42	117.1	25.99	2.97
Absa Euro Income	Absa	80979.49	1.14	110.83	141.16	0.83
Absa US Dollar Income	Absa	80979.49	1.14	94.84	303.8	0.81
Glacier Intl Multi-Currency - B1	Glacier	2234.46	0.29	1151.11	220.62	1.17
Interneuron Capital Freestyle	Interneuron	154.74	5.7	377.02	71.46	1.63
Marriott Global Income - A	Marriott	6946.4	3.99	295.87	21.31	1.06
Old Mutual UK Money Market Feeder - A	Old Mutual	62683.27	1.14	212.11	395.24	0.64

RMB Intl Income - A	RMB	25843.36	3.42	88.29	44.55	0.97
Visio Actinio	Visio	133.63	0.29	276.14	133.63	1.39
Metropolitan Intl Specialist Income FoF - A	Metropolitan	4705.15	1.14	104.85	263.17	1.78
Prudential Global Income Plus FoF	Prudential	10628.04	2.57	121.62	105.26	1.85
STANLIB Euro Currency FoF - A	STANLIB	60848.62	3.42	111.44	311.35	0.8
STANLIB US Dollar Cash FoF - A	STANLIB	60848.62	3.42	88.8	318.25	0.79
Efficient Flexible FoF - A	Efficient	832.68	0	111.1	293.77	2.25
Coronation Optimum Growth - A	Coronation	37233.9	3.42	3404.78	996.63	1.32
Personal Trust Vuna	Personal Trust	2525.25	3.42	130.03	47.77	1.61
RMB World Wide Flexible	RMB	25843.36	3.42	1693.85	85.28	1.93
Spyglass Flexible	Spyglass	17.54	3.71	150.72	17.54	2.12
IMC Worldwide Flexible FoF	IMC	59.87	3.71	86.67	19.52	2.21
Old Mutual Four Plus Global FoF - A	Old Mutual	62683.27	5.7	360.5	200.9	2.38
Platinum Flexible Growth FoF	Platinum	172.85	3.71	148.81	15.23	3.18
Flagship Worldwide Flexible - A	Flagship	847.56	0	244.7	529.27	1.96
Nedgroup Inv Bravata Worldwide Flexible - A	Nedgroup	67126.12	0	127.39	472.88	1.75
Flagship Worldwide Flexible FoF - A	Flagship	847.56	0	265.75	130.66	2.01
Marriott Worldwide Flexible FoF - A	Marriott	6946.4	0	1406.79	108.39	2.85
STANLIB Multi-National - A	STANLIB	60848.62	5.7	305.26	227.19	2.03
STANLIB Global Science & Technology - A	STANLIB	60848.62	5.7	152.94	49.93	1.87
SIM Resources	SIM	21660.71	5.7	491.03	63.54	1.95

Table A1.2

This table summarises the data by fund, giving the cash value of an investment made 6 months, 1 year or 3 years prior to 31 December 2009 as well as the annuitized annual returns earned by investors over the given time periods.

Fund Name	6 months Cash Value	6 mnth Annualised Return (%)	1 Year Cash Value	1 yr Annualised Return (%)	3 Years Cash Value	3 yr Annualised Return (%)
Phire Defensive FoF	116.23	35.09	122.93	22.93	119.52	6.12
PSG Advance Wealth Preserver FoF - A	112.77	27.17	115.54	15.54	127.14	8.33
PSG Alphen Prudential FoF	112.35	26.23	116.28	16.28	125.6	7.89
Investment Solutions M-M Balanced FoF	118.48	40.38	126.19	26.19	127.45	8.42
Absa Inflation Beater - A	119.89	43.74	124.14	24.14	119.97	6.26
Absa Inflation Beater - A	119.1	41.85	126.23	26.23	109.32	3.01
Nedgroup Investments Optimal Income - A	120.09	44.22	127.82	27.82	128.77	8.79
Nedgroup Investments Optimal Income - A	118.04	39.33	127.4	27.4	128.58	8.74
Umbono Absolute Return - A	117.11	37.15	120.87	20.87	123.82	7.38
Umbono Absolute Return - A	124.27	54.43	140.09	40.09	139.19	11.65
Investec Absolute Balanced - A	132.84	76.46	139.08	39.08	121.27	6.64
Investec Absolute Balanced - A	122.77	50.72	130.01	30.01	128.45	8.70
Nedgroup Inv Quants Core Equity - A	110.32	21.71	113.34	13.34	112.54	4.02
Nedgroup Inv Quants Core Equity - R	113.07	27.85	117.46	17.46	121.6	6.74
Nedgroup Inv Equity - A	110.6	22.32	113.9	13.9	120	6.27
Nedgroup Inv Equity - R	115.24	32.80	118.46	18.46	117.81	5.62
Oasis Crescent Equity	106.64	13.72	108.86	8.86	122.66	7.05
Oasis General Equity	119.88	43.71	128.87	28.87	112.02	3.86
Old Mutual High Yield Opportunity - A	106.95	14.38	108.25	8.25	126.56	8.17
Old Mutual Top Companies - R	117.47	37.99	121.29	21.29	114.88	4.73
Stringfellow Stable FoF	103.46	7.04	99.04	-0.96	119.14	6.01
Alexander Forbes Moderate FoF	104.08	8.33	105.8	5.8	126.03	8.02
Alexander Forbes Moderately Aggressive FoF	103.86	7.87	108.04	8.04	129.92	9.12
Lynx Cautious FoF - A1	104.86	9.96	108.7	8.7	136.83	11.02
STANLIB M-M All Stars Equity FoF - A	113.16	28.05	114.74	14.74	106.62	2.16
Aylett Equity - A3	108.45	17.61	111.77	11.77	120.12	6.30
Foord Equity	119.5	42.80	120.93	20.93	115.82	5.02
Nedgroup Inv Value - A	102.06	4.16	105.77	5.77	130.66	9.32
Nedgroup Inv Value - R	102.06	4.16	105.77	5.77	130.66	9.32
Old Mutual Value - R	112.79	27.22	115.73	15.73	127.53	8.44
RMB Value - A	112.79	27.22	115.73	15.73	127.53	8.44
SIM Value	114.21	30.44	122.16	22.16	131.66	9.60
STANLIB Value - A	114.21	30.44	122.16	22.16	131.66	9.60
Cadiz Mastermind - A	104.73	9.68	107.34	7.34	133.23	10.04
Prudential Dividend Maximiser - A	114.26	30.55	107.6	7.6	127.69	8.49
STANLIB M-M Bond Feeder - A	116.13	34.86	121.29	21.29	117.69	5.58
Investment Solutions Pure Fixed Interest	112.61	26.81	115.77	15.77	117.91	5.65
Allan Gray Bond - A	105.3	10.88	106.02	6.02	126.46	8.14
Personal Trust Active FoF	111.8	24.99	116.32	16.32	131.16	9.46
Dynamic Wealth Accumulator FoF - A1	113.79	29.48	118.69	18.69	127.16	8.34
Metropolitan Odyssey Conservative FoF	116.21	35.05	123.78	23.78	125.89	7.98
STANLIB Dividend Income - A	109.07	18.96	109.93	9.93	136.49	10.93
STANLIB Flexible Income - A	116.99	36.87	118.15	18.15	120.08	6.29
STANLIB Corporate Bond - A	124.86	55.90	130.85	30.85	132.71	9.89
STANLIB Aggressive Income - A	124.77	55.68	132.4	32.4	117.04	5.38
Coronation Strategic Income - A	121.09	46.63	130.1	30.1	110.59	3.41
Glacier Financial Solutions Conservative Multi-Managed	126.6	60.28	137.64	37.64	122.09	6.88
Old Mutual Enhanced Income - A	124.52	55.05	129.98	29.98	112.9	4.13
PSG Alphen Optimal Income	124.41	54.78	129.82	29.82	112.22	3.92
PSG Alphen Flexible - A	126.34	59.62	132.22	32.22	119.18	6.02
APS Moderate FoF - A	104.57	9.35	108.54	8.54	136.23	10.86
Absa Property Equity	126.64	60.38	127.48	27.48	129.48	8.99
STANLIB M-M Property - A	107.23	14.98	113	13	137.78	11.27
STANLIB Property Income - A	107.23	14.98	113	13	137.78	11.27
Oasis Balanced	104.44	9.08	110.67	10.67	135.46	10.65
Old Mutual Real Income - A	104.44	9.08	110.67	10.67	135.46	10.65
ValuGro Property	116.53	35.79	119.5	19.5	128.07	8.60
Old Mutual Global Equity - R	112.3	26.11	113.65	13.65	108.82	2.86
Quantum Conservative FoF - A	100.3	0.60	96.68	-3.32	125.21	7.78

36One Flexible Opportunity	114.74	31.65	117.85	17.85	120.77	6.49
4i Stable FoF - A	124.28	54.46	124.98	24.98	147.71	13.89
Absa Balanced - A	118.5	40.42	124.85	24.85	119.35	6.07
STANLIB Balanced Trustees FoF - A	117.33	37.66	120.04	20.04	118.44	5.80
Old Mutual Four Plus Growth FoF - A	117.49	38.04	120.37	20.37	119.41	6.09
BlueAlpha All Seasons	116.26	35.16	116.87	16.87	110.96	3.53
Cadiz Managed Flexible - A	116.58	35.91	117.51	17.51	112.85	4.11
SIM Balanced - A	116.58	35.91	117.51	17.51	112.85	4.11
SIM Balanced - R	109.12	19.07	120.09	20.09	112.98	4.15
STANLIB Balanced - A	111.96	25.35	114.11	14.11	126.94	8.28
STANLIB Balanced - R	117.7	38.53	123.67	23.67	127.72	8.50
STANLIB Balanced - B1	118.15	39.59	121.95	21.95	117.33	5.47
STANLIB Quants - A	103.02	6.13	91.87	-8.13	92.52	-2.56
Contego B6 Protected Balanced	115.28	32.89	116.57	16.57	110.77	3.47
Coronation Balanced Plus - A	105.33	10.94	104.27	4.27	114.63	4.66
FNB Balanced	116.31	35.28	120.45	20.45	115.08	4.79
Interneuron Capital Managed	118.03	39.31	119.74	19.74	119.71	6.18
Matador Balanced - C	117.69	38.51	121.92	21.92	117.31	5.47
Metropolitan Absolute Provider	117.84	38.86	122.24	22.24	118.3	5.76
Old Mutual Balanced - R	110.21	21.46	117.08	17.08	119.87	6.23
Prudential Balanced - A	113.93	29.80	118.7	18.7	113.32	4.26
RMB Balanced - A	126.33	59.59	130.82	30.82	111.16	3.59
RMB Balanced - R	126.48	59.97	140.82	40.82	108.18	2.66
STANLIB Dynamic Return - A	126.75	60.66	141.48	41.48	110	3.23
Tri-Linear Balanced	124.62	55.30	132.06	32.06	109.06	2.93
Coronation Absolute - A	127.65	62.95	139.17	39.17	105.64	1.85
Allan Gray Balanced - A	125.26	56.90	129.83	29.83	94.92	-1.72
Old Mutual Dynamic Floor - A	124.79	55.73	137.2	37.2	111.86	3.81
Dotport Dynamic Flexible FoF	121.98	48.79	129.87	29.87	112.7	4.07
GCI Flexible FoF	111.82	25.04	117.3	17.3	106.74	2.20
STANLIB Moderately Aggressive FoF - A	122.35	49.70	132.15	32.15	136.23	10.86
4i Balanced FoF - A	123.15	51.66	128.5	28.5	119.66	6.17
AS Forum Moderate FoF	123.67	52.94	135.79	35.79	112.03	3.86
Crescent Balanced Progressive FoF	122.69	50.53	133.41	33.41	124.2	7.49
Dotport Dynamic Stable Prudential FoF	126.63	60.35	138.66	38.66	118.7	5.88
GCI Balanced FoF	124.73	55.58	136.3	36.3	127.72	8.50
Matador Defensive FoF - C	124.52	55.05	135.87	35.87	126.61	8.18
Metropolitan Odyssey Balanced FoF	118.72	40.94	128.14	28.14	118.64	5.86
Noble PP Balanced FoF - A	114.54	31.19	123.53	23.53	119.59	6.14
Noble PP Wealth Creator FoF - A	124.57	55.18	132.64	32.64	105.76	1.88
Oasis Balanced Stable FoF	114.28	30.60	119.48	19.48	93.12	-2.35
PSG Advance Wealth Moderate FoF - A	117.81	38.79	131.48	31.48	109.96	3.22
Sentinel Diversified Income FoF	120.77	45.85	125.88	25.88	105.82	1.90
Sentinel Prudential FoF - A	125	56.25	138.56	38.56	133.24	10.04
SYmmETRY Defensive FoF - A	116.11	34.82	128.01	28.01	112.85	4.11
SYmmETRY Balanced FoF - A	121.69	48.08	127.02	27.02	116.77	5.30
Lynx Balanced FoF - A1	116.24	35.12	117.39	17.39	111.36	3.65
Xhilarator Multi-SA Balanced FoF - A	121.81	48.38	131.44	31.44	107.11	2.32
Efficient Prudential - A	120.21	44.50	130.21	30.21	119.5	6.12
Hermes Flexible - R	120.55	45.32	130.92	30.92	121.52	6.71
Investec Managed - A	123.82	53.31	130.48	30.48	119.5	6.12
Investec Managed - R	123.95	53.64	130.78	30.78	120.47	6.40
Nedgroup Inv Managed - A	122.87	50.97	127.34	27.34	104.02	1.32
Nedgroup Inv Managed - R	123.14	51.63	127.93	27.93	105.79	1.89
Nedgroup Inv Balanced - A	119.56	42.95	121.37	21.37	115.02	4.78
Prescient Balanced Quant Plus - A1	121.71	48.13	126.98	26.98	121.41	6.68
Rezco Value Trend	126.39	59.74	136.59	36.59	107.56	2.46
Foord Balanced	124.91	56.03	137.23	37.23	119.71	6.18
Efficient Prudential FoF - A	125.1	56.50	131.78	31.78	117.4	5.49
Momentum Builder FoF	125.14	56.60	137.89	37.89	123.64	7.33
Umbono Stable Managed FoF	122.44	49.92	131.08	31.08	114.23	4.53
Verso M-M Secure Growth FoF - A	126.82	60.83	146.52	46.52	106.64	2.17
Analytics Moderate FoF - A	120.78	45.88	126.48	26.48	114.39	4.58
Analytics Balanced FoF - A	124.57	55.18	132.35	32.35	106.25	2.04
Marriott Prudential FoF - A	124.75	55.63	132.71	32.71	107.13	2.32
Verso M-M Balanced Growth FoF - A	120.07	44.17	120.18	20.18	96.28	-1.26
Verso M-M Managed Equity FoF - A	123.58	52.72	134.06	34.06	123.26	7.22
36One Target Return	123.75	53.14	134.41	34.41	124.28	7.51
36One Target Return	121.94	48.69	127.82	27.82	107.23	2.35
Absa Absolute	119.58	42.99	122.42	22.42	95.16	-1.64
Absa Absolute	119.91	43.78	123.08	23.08	96.79	-1.08
Advantage Real Return Core - A	126.02	58.81	135.18	35.18	122.05	6.87

Advantage Real Return Core - A	119.47	42.73	125.57	25.57	89.13	-3.76
Cadiz Inflation Plus	119.79	43.50	126.22	26.22	90.68	-3.21
Cadiz Inflation Plus	120.31	44.74	124.81	24.81	107.61	2.47
Cadiz Equity Ladder	106.88	14.23	108.17	8.17	116.76	5.30
Cadiz Equity Ladder	112.01	25.46	111.81	11.81	108.29	2.69
Centaur Flexible	124.23	54.33	133.39	33.39	110.36	3.34
Contego B5 Protected Equity	124.5	55.00	133.99	33.99	112.24	3.92
Contego B5 Protected Equity	118.79	41.11	128.03	28.03	119.21	6.03
Dynamic Wealth Optimal - A	127.82	63.38	135.43	35.43	113.58	4.34
Dynamic Wealth Optimal - A	127.99	63.81	135.79	35.79	114.4	4.59
Element Real Income - A	122.2	49.33	129.76	29.76	109.7	3.13
Element Real Income - A	122.53	50.14	130.44	30.44	111.57	3.72
Investment Solutions Real Return Focus	119.25	42.21	134.26	34.26	99.99	0.00
Investment Solutions Real Return Focus	119.54	42.90	132.85	32.85	100.27	0.09
JMBusha Real Return	123.23	51.86	135.23	35.23	122.81	7.09
JMBusha Real Return	113.11	27.94	122.03	22.03	105.31	1.74
Kagiso Protector - A	123.45	52.40	130.1	30.1	120.85	6.52
Kagiso Protector - A	126.04	58.86	133.56	33.56	119.02	5.98
Peregrine Real Income - A1	126.58	60.22	132.7	32.7	128.47	8.71
Peregrine Real Income - A1	122.79	50.77	127.56	27.56	121.23	6.63
Prudential Inflation Plus - A	123.12	51.59	128.25	28.25	123.28	7.23
RMB Absolute Focus - A	123.44	52.37	137.55	37.55	131.12	9.45
RMB Absolute Focus - A	123.71	53.04	137.34	37.34	132.43	9.82
RMB High Dividend - A	124.81	55.78	132.34	32.34	119.81	6.21
RMB High Dividend - A	125.62	57.80	135.02	35.02	115.1	4.80
Sasfin Wealth Preserver	125.29	56.98	135.01	35.01	115.54	4.93
SIM Inflation Plus	124.45	54.88	133.27	33.27	117.12	5.41
STANLIB Cash Plus - A	127	61.29	136.36	36.36	119.61	6.15
STANLIB Cash Plus - A	126.08	58.96	134.78	34.78	116.27	5.15
STANLIB M-M Real Return Feeder - A	126.1	59.01	134.41	34.41	119.34	6.07
STANLIB M-M Real Return Feeder - A	126.96	61.19	147.23	47.23	131.59	9.58
STANLIB Inflation Plus 3% - A	124.97	56.18	142.52	42.52	128.78	8.80
STANLIB Inflation Plus 3% - A	121.45	47.50	138.3	38.3	137.12	11.10
STANLIB Managed Flexible - A	121.8	48.35	139.09	39.09	139.42	11.71
STANLIB Managed Flexible - A	110.56	22.24	122.85	22.85	102.01	0.67
Absa Balanced - R	130.88	71.30	149.34	49.34	152.2	15.03
Peregrine Inflation Plus 3 - A1	132.81	76.38	157.98	57.98	136.28	10.87
Peregrine Inflation Plus 3 - A1	127.55	62.69	142.4	42.4	124.72	7.64
Peregrine Inflation Plus 5 - A1	104.11	8.39	118.16	18.16	99.97	-0.01
Peregrine Inflation Plus 5 - A1	103.84	7.83	117.64	17.64	98.2	-0.60
Peregrine Inflation Plus 7 - A1	122.83	50.87	127.85	27.85	111.72	3.76
Peregrine Inflation Plus 7 - A1	123.16	51.68	128.5	28.5	113.61	4.35
Prudential Inflation Plus - A	122.11	49.11	133.38	33.38	100.12	0.04
SIM Inflation Plus	122.56	50.21	125.52	25.52	104.11	1.35
Allan Gray Optimal - A	122.92	51.09	126.25	26.25	105.92	1.94
Allan Gray Optimal - A	123.36	52.18	127.09	27.09	99.69	-0.10
Coronation Capital Plus - A	129.42	67.50	135.29	35.29	126.21	8.07
Coronation Capital Plus - A	126.89	61.01	128.68	28.68	103.67	1.21
Coronation SA Capital Plus - A	127.22	61.85	129.37	29.37	105.45	1.78
Coronation SA Capital Plus - A	106.77	14.00	97.93	-2.07	55.43	-17.85
4i Absolute Return FoF - A	106.5	13.42	97.42	-2.58	54.29	-18.42
Dinamika Conservative FoF	125.79	58.23	137.48	37.48	112.5	4.00
Dinamika Conservative FoF	128.85	66.02	134.19	34.19	128.91	8.83
PSG Advance Wealth Preserver FoF - A	129.1	66.67	134.79	34.79	130.99	9.42
SMMI Defensive FoF	127.42	62.36	139.05	39.05	115.69	4.98
SMMI Defensive FoF	130.09	69.23	145.73	45.73	125.06	7.74
STANLIB M-M Medium Equity FoF - A	126.55	60.15	136.34	36.34	126.39	8.12
STANLIB M-M High Equity FoF - A	123.18	51.73	131.05	31.05	125.52	7.87
4i Absolute Return FoF - A	126.91	61.06	139.64	39.64	140	11.87
Baroque Moderato FoF	117.18	37.31	125.49	25.49	100.43	0.14
Investec Opportunity - R	109.03	18.88	113.73	13.73	128.18	8.63
Sygnia Alpha Plus - A	108.8	18.37	112.2	12.2	124.37	7.54
Sygnia Alpha Plus - A	112.87	27.40	116.56	16.56	111.64	3.74
Nedgroup Inv Positive Return - A	111.79	24.97	114.07	14.07	130.21	9.20
Nedgroup Inv Positive Return - A	102.58	5.23	105.29	5.29	128.73	8.78
Momentum Dynamic Asset Allocator FoF - B1	117.06	37.03	121.54	21.54	110.43	3.36
Momentum Dynamic Asset Allocator FoF - B1	113.3	28.37	117.91	17.91	121.59	6.73
RMB Private Bank Defensive FoF - B1	113.74	29.37	119.1	19.1	113.68	4.37
RMB Private Bank Defensive FoF - B1	114.96	32.16	117.49	17.49	110.43	3.36
SMMI Protection Solution 3 FoF - A	113.08	27.87	115.93	15.93	133.62	10.14
SMMI Protection Solution 3 FoF - A	102.72	5.51	105.48	5.48	129.03	8.87
SMMI Absolute Solution 5 FoF - A	110.12	21.26	110.96	10.96	120.37	6.37

SMMI Absolute Solution 5 FoF - A	115.13	32.55	118.68	18.68	114.57	4.64
SMMI Long Term Growth Solution 7 FoF - A	107.65	15.89	110.36	10.36	125.28	7.80
SMMI Long Term Growth Solution 7 FoF - A	109.81	20.58	111.31	11.31	122.32	6.95
APS Managed Growth FoF - A	111.95	25.33	113.11	13.11	118.17	5.72
Quantum Balanced FoF - A	113.93	29.80	116.57	16.57	111.96	3.84
Coronation Financial - A	103.87	7.89	106.57	6.57	127.39	8.40
Nedgroup Inv Financials - A	111.39	24.08	116.09	16.09	117.73	5.59
Nedgroup Inv Financials - R	111.86	25.13	113.54	13.54	122.57	7.02
Old Mutual Financial Services - R	115.49	33.38	118.5	18.5	125.18	7.77
RMB Financial Services - A	107.31	15.15	108.28	8.28	110.39	3.35
Satrix FINI - A	120.28	44.67	123.16	23.16	120.22	6.33
SIM Financial	117.52	38.11	116.85	16.85	104.29	1.41
STANLIB Financials - A	120.65	45.56	130.38	30.38	122.63	7.04
Coronation Market Plus - A	115.63	33.70	120.09	20.09	120.32	6.36
Avocado Dynamic FoF - A	120.29	44.70	125.11	25.11	107.04	2.29
Noble PP All Weather FoF - A	116.04	34.65	118.99	18.99	112.18	3.91
Absa Flexible	118.48	40.38	125.36	25.36	104.09	1.35
Absa Select Equity	112.97	27.62	111.14	11.14	117.76	5.60
Absa General - R	109.36	19.60	97.54	-2.46	102.85	0.94
Cannon Equity	120.51	45.23	122.57	22.57	100.05	0.02
Community Growth - A	114.29	30.62	116.68	16.68	117.22	5.44
Coris Capital General Equity - A	122.93	51.12	128.21	28.21	111.37	3.65
Coronation Equity - R	120.05	44.12	130.92	30.92	111.48	3.69
Coronation Equity - A	111.67	24.70	112.96	12.96	110.8	3.48
Element Earth Equity - A	112.23	25.96	114.49	14.49	115.81	5.01
Element Islamic Equity - A	115.4	33.17	118.69	18.69	115.27	4.85
FNB Growth	117.2	37.36	121.11	21.11	109.19	2.97
Futuregrowth Albaraka Equity - A	111.94	25.31	114.08	14.08	114.39	4.58
Harvard House General Equity	118.17	39.64	122.13	22.13	120.42	6.39
Interneuron Capital Equity	111.4	24.10	112.35	12.35	110.4	3.35
Kagiso Equity Alpha - A	111.66	24.68	113.92	13.92	120.81	6.50
Maestro Equity - A	114.92	32.07	118.34	18.34	117.58	5.55
Marriott Dividend Growth - R	115.79	34.07	121.17	21.17	111.09	3.57
Melville Douglas Dynamic Strategy - A	114.43	30.94	113.61	13.61	106.26	2.04
Metropolitan General Equity	113.51	28.85	114.46	14.46	115.07	4.79
Nedgroup Inv Rainmaker - A	119.81	43.54	125.71	25.71	108.96	2.90
Nedgroup Inv Rainmaker - R	121.93	48.67	127.88	27.88	109.78	3.16
Old Mutual Investors - R	103.7	7.54	98.73	-1.27	116.13	5.11
Old Mutual Growth - R	104.08	8.33	99.26	-0.74	122.61	7.03
Peregrine Beta Equity - B2	101.62	3.27	93.9	-6.1	112.39	3.97
PSG Alphen Growth - A	103.91	7.97	99.37	-0.63	121.15	6.60
RMB High Tide - A	103.06	6.21	98.31	-1.69	121.86	6.81
RMB Equity - A	104.27	8.72	105.13	5.13	126.24	8.08
RMB Equity - R	103.72	7.58	98.63	-1.37	120.57	6.43
Sasfin TwentyTen	103.23	6.56	98.55	-1.45	119.6	6.15
SIM General Equity - A	103.96	8.08	100.56	0.56	123	7.14
SIM General Equity - R	103.66	7.45	98.74	-1.26	118.59	5.85
STANLIB M-M Equity - A1	104.15	8.47	98.62	-1.38	119.28	6.05
STANLIB Equity - A	104.15	8.47	98.62	-1.38	119.28	6.05
STANLIB Equity - R	103.39	6.89	98.85	-1.15	118.84	5.92
STANLIB Index - R	104.27	8.72	108.75	8.75	130.03	9.15
STANLIB Prosperity - A	104.44	9.08	107.91	7.91	133.25	10.04
STANLIB Prosperity - R	104.18	8.53	107.96	7.96	132.1	9.72
Tri-Linear Equity	103.9	7.95	109.4	9.4	132.58	9.86
RMB Conservative - A	103.83	7.81	108.01	8.01	129.96	9.13
RMB Moderate - A	104.57	9.35	107.69	7.69	132.29	9.78
Allan Gray Equity - A	102.32	4.69	106.04	6.04	123.58	7.31
Investment Solutions M-M Equity	104.54	9.29	110.01	10.01	137.41	11.17
Prudential Equity - A	106.84	14.15	111.13	11.13	129.6	9.03
SIM Top Choice Equity - A1	120.93	46.24	119.78	19.78	130.78	9.36
ValuGro General Equity	104.07	8.31	109.52	9.52	134.74	10.45
Absa Growth FoF	103.52	7.16	108.39	8.39	130.61	9.31
Capstone Active Equity FoF	103.51	7.14	108.38	8.38	130.43	9.26
FG Saturn Flexible FoF - A	102.91	5.90	106.03	6.03	131.56	9.57
FG Mercury Equity FoF - A	103.89	7.93	108.34	8.34	121.84	6.81
Glacier Financial Solutions Flexible M-M FoF	109.39	19.66	116.6	16.6	117.95	5.66
Matador Equity FoF - C	104.35	8.89	108.35	8.35	132.85	9.93
Personal Trust Prudent FoF - A	105.13	10.52	108.94	8.94	135.19	10.57
PSG Macro Active FoF	104.3	8.78	107.31	7.31	129.06	8.88
PSG Alphen Equity FoF - A	102.83	5.74	106.89	6.89	123.55	7.30
SMMI Balanced FoF - A	104.43	9.06	104.31	4.31	128.42	8.70
SMMI Equity FoF	103.33	6.77	102.29	2.29	117.31	5.47

SYmmETRY Equity FoF - A	108.85	18.48	109.27	9.27	128.39	8.69
Dynamic Wealth Preserver FoF - A1	105.78	11.89	108.31	8.31	128.02	8.58
Dynamic Wealth Preserver FoF - A	104.25	8.68	108.62	8.62	128.99	8.86
Dynamic Wealth Accumulator FoF - A	104.26	8.70	105.69	5.69	128.41	8.69
Dynamic Wealth Creator FoF - A	106.14	12.66	110.85	10.85	128.2	8.63
Platinum Balanced Prudential FoF	116.72	36.24	119.43	19.43	114.24	4.54
Select Manager Flexible Growth FoF - A	107.76	16.12	109.46	9.46	106.66	2.17
SIM Managed Cautious FoF - A1	122.98	51.24	133.86	33.86	112.08	3.87
Analytics Managed Equity - A	115.03	32.32	117.38	17.38	109.78	3.16
Gryphon All Share Tracker - A	108.82	18.42	112.68	12.68	124.09	7.46
Hermes Equity - A	107.95	16.53	109.94	9.94	124.9	7.69
Hermes Equity - R	109	18.81	112.72	12.72	123.18	7.20
Huysamer Equity - A	104.47	9.14	108.22	8.22	129.38	8.97
Indequity Technical	103.9	7.95	106.8	6.8	126.1	8.04
Investec Equity - R	104.13	8.43	105.41	5.41	122.54	7.01
Investec Active Quants - R	103.48	7.08	106.65	6.65	127.8	8.52
Osborne Flexible - A1	104.74	9.70	107.97	7.97	129.69	9.05
Osborne Equity - A1	104.88	10.00	108.49	8.49	122.87	7.11
Prescient Equity Active Quant - A1	103.82	7.79	106.86	6.86	126.35	8.11
Prescient Equity Quant - A1	104.56	9.33	107.13	7.13	123.54	7.30
RMB Private Bank Equity - A	104.79	9.81	106.8	6.8	127.29	8.38
Investec Equity - A	126.41	59.79	133.39	33.39	117.91	5.65
Investec Active Quants - A	126.22	59.31	133.81	33.81	118.29	5.76
Kruger Flexible FoF - A	126.22	59.31	133.81	33.81	118.29	5.76
Momentum Aggressive Prudential FoF - B1	108.3	17.29	110.32	10.32	137.02	11.07
Momentum Accumulator FoF	108.3	17.29	110.32	10.32	137.02	11.07
Momentum Moderate Equity FoF - B1	103.62	7.37	109.78	9.78	131.58	9.58
Momentum Aggressive Equity FoF - B1	103.62	7.37	109.78	9.78	131.58	9.58
Momentum Multifocus FoF	111.46	24.23	118.86	18.86	135.6	10.68
RMB Private Bank Growth FoF - B1	111.46	24.23	118.86	18.86	135.6	10.68
Analytics Cautious FoF - A	121.28	47.09	140.74	40.74	181.87	22.06
Kruger Prudential FoF - A	121.28	47.09	140.74	40.74	181.87	22.06
Kruger Balanced FoF - A	124.59	55.23	129.29	29.29	111.61	3.73
Quantum Capital Plus FoF - A	115.46	33.31	123.42	23.42	138.37	11.43
Nedgroup Inv Growth - A	115.46	33.31	123.42	23.42	138.37	11.43
Nedgroup Inv Growth - R	122.7	50.55	130.97	30.97	102.62	0.87
Old Mutual Flexible - R	122.7	50.55	130.97	30.97	102.62	0.87
RMB Strategic Opportunities - A	104.43	9.06	108.68	8.68	116.38	5.19
RMB Strategic Opportunities - R	104.43	9.06	108.68	8.68	116.38	5.19
SIM Growth - A	108.87	18.53	115.09	15.09	130.68	9.33
SIM Growth - R	108.87	18.53	115.09	15.09	130.68	9.33
STANLIB Growth - A	105.82	11.98	111.46	11.46	131.29	9.50
STANLIB Growth - R	105.82	11.98	111.46	11.46	131.29	9.50
Investec Growth - R	110.82	22.81	117.23	17.23	125.29	7.80
Investec Growth - B	110.82	22.81	117.23	17.23	125.29	7.80
Investec Growth - A	102.81	5.70	107.26	7.26	115.55	4.94
Coronation Industrial	102.81	5.70	107.26	7.26	115.55	4.94
Metropolitan Industrial	110.96	23.12	111.55	11.55	126.52	8.16
Old Mutual Industrial - A	103.34	6.79	107.45	7.45	123.09	7.17
RMB Industrial - A	103.34	6.79	107.45	7.45	123.09	7.17
Satrix INDI - A	110.81	22.79	115	15	116.03	5.08
SIM Industrial - A	110.81	22.79	115	15	116.03	5.08
SIM Industrial - R	106.36	13.12	108.23	8.23	119.07	5.99
STANLIB Industrial - A	108.58	17.90	110.1	10.1	120.07	6.29
STANLIB Industrial - R	104.06	8.28	109.6	9.6	133.92	10.23
STANLIB Moderately Conservative FoF - A	104.06	8.28	109.6	9.6	133.92	10.23
Select Manager Prudential Active FoF - A	108.5	17.72	114.42	14.42	128.3	8.66
Momentum Consolidator FoF	108.5	17.72	114.42	14.42	128.3	8.66
Cannon Core Companies	105.09	10.44	103.65	3.65	113.89	4.43
Old Mutual Top 40 - A	105.09	10.44	103.65	3.65	113.89	4.43
RMB Top 40 Index - A	106.56	13.55	106.93	6.93	110.84	3.49
Satrix SWIX TOP 40 - A	106.56	13.55	106.93	6.93	110.84	3.49
Satrix 40 - A	115.06	32.39	118.49	18.49	122.85	7.10
SIM Index	107.94	16.51	110.53	10.53	114.99	4.77
STANLIB ALSI 40 - A	107.94	16.51	110.53	10.53	114.99	4.77
Coronation Top 20 - A	110.46	22.01	113.08	13.08	112.99	4.15
AS Forum Aggressive FoF	110.46	22.01	113.08	13.08	112.99	4.15
Kagiso Top 40 Tracker - R	115.93	34.40	119.13	19.13	111.33	3.64
Momentum Balanced Prudential FoF - B1	115.93	34.40	119.13	19.13	111.33	3.64
Coronation Resources - A	110.96	23.12	111.55	11.55	126.52	8.16
Metropolitan Resources	108.58	17.90	110.1	10.1	120.07	6.29
Nedgroup Inv Mining & Resource - A	108.58	17.90	112.85	12.85	116.85	5.33

Nedgroup Inv Mining & Resource - R	103.8	7.74	107.83	7.83	130.4	9.25
Old Mutual Gold - R	114.6	31.33	118.68	18.68	129.43	8.98
Old Mutual Mining and Resources - R	112.2	25.89	116.13	16.13	124.77	7.66
RMB Resources	115.82	34.14	118.85	18.85	113.12	4.19
Satrix RESI - A	123.49	52.50	137.36	37.36	106.84	2.23
STANLIB Gold and Precious Metals - R	113.14	28.01	109.66	9.66	130.22	9.20
STANLIB Gold and Precious Metals - A	115.44	33.26	113.41	13.41	138.3	11.41
STANLIB Resources - A	116.14	34.88	113.61	13.61	129.36	8.96
STANLIB Resources - R	114.34	30.74	109.49	9.49	116.39	5.19
Investec Commodity - A	113.59	29.03	108.02	8.02	111.12	3.58
Investec Commodity - R	112.95	27.58	111.57	11.57	136.59	10.95
Umbono Moderate Managed FoF	116.14	34.88	113.6	13.6	136.5	10.93
Coronation Smaller Companies - R	106.74	13.93	108.8	8.8	122.71	7.06
Nedgroup Inv Entrepreneur - A	109.88	20.74	110.39	10.39	121.95	6.84
Nedgroup Inv Entrepreneur - R	114.96	32.16	112.9	12.9	129.26	8.93
Old Mutual Small Companies - R	113.7	29.28	109.25	9.25	116.68	5.28
RMB Small Mid-Cap - A	115.7	33.86	111.35	11.35	112.38	3.97
SIM Small Cap - A	114.48	31.06	113.03	13.03	132.66	9.88
SIM Small Cap - R	115.53	33.47	113.2	13.2	137.21	11.12
STANLIB Small Cap - R	115.02	32.30	113.27	13.27	128.43	8.70
STANLIB Small Cap - A	114.76	31.70	111.8	11.8	122.51	7.00
Absa Allrounder FoF	112.6	26.79	111.87	11.87	131.35	9.52
Absa Prudential FoF	116	34.56	113.51	13.51	136.53	10.94
Investec Emerging Companies - R	117.48	38.02	115.28	15.28	141.9	12.37
Investec Emerging Companies - A	115.25	32.83	115.71	15.71	114.85	4.72
Metropolitan High Dividend	107.76	16.12	111.16	11.16	125.54	7.88
STANLIB Aggressive FoF - A	105.14	10.54	109.19	9.19	122.99	7.14
Alexander Forbes Aggressive FoF	108.28	17.25	111.91	11.91	121.11	6.59
Investec Value - R	108.28	17.25	111.91	11.91	121.11	6.59
Investec Value - A	108.08	16.81	110.04	10.04	121.08	6.58
Absa Rand Protector	110.06	21.13	116.99	16.99	124.22	7.50
Personal Trust High Yield Growth	110.06	21.13	116.99	16.99	124.22	7.50
Select Manager Defensive Equity FoF	113.03	27.76	115.45	15.45	115.31	4.86
Umbono Balanced - A	116.41	35.51	118.28	18.28	108.91	2.89
Absa Bond - A	105.14	10.54	109.19	9.19	122.99	7.14
Community Gilt - A	113.48	28.78	120.72	20.72	124.92	7.70
Coris Capital Gilt - A	107.78	16.17	111.29	11.29	127.12	8.33
Coronation Bond - R	108.08	16.81	110.04	10.04	121.08	6.58
Metropolitan Gilt	107.81	16.23	109.44	9.44	114.54	4.63
Oasis Bond	114.01	29.98	116.88	16.88	116.45	5.21
Old Mutual Bond - R	113.69	29.25	116.41	16.41	113.01	4.16
Prudential High Yield Bond - A	103.28	6.67	104.57	4.57	87.01	-4.53
RMB Bond - A	108.53	17.79	111.87	11.87	123.36	7.25
SIM Bond Plus	108.56	17.85	112.9	12.9	122.2	6.91
STANLIB Bond - A	106.15	12.68	104.83	4.83	116.83	5.32
STANLIB Bond - R	107.89	16.40	107.7	7.7	115.07	4.79
Nedgroup Inv Bond - R	118.22	39.76	121.7	21.7	104.6	1.51
Nedgroup Inv Bond - A	115.49	33.38	119.45	19.45	125.66	7.91
Investec Gilt - A	116	34.56	121.05	21.05	115.13	4.81
Investec Gilt - R	115.97	34.49	120.97	20.97	117.65	5.57
Coronation Income	114.73	31.63	117.35	17.35	121.27	6.64
Old Mutual Income - R	115.05	32.37	118.01	18.01	123.33	7.24
RMB Maximum Income - A	115.12	32.53	114.36	14.36	102.39	0.79
STANLIB Extra Income - R	110.86	22.90	115.34	15.34	132.43	9.82
STANLIB M-M Income Feeder - A	123.46	52.42	132.91	32.91	115.21	4.83
STANLIB Income - R	125.63	57.83	133.16	33.16	117.97	5.66
Investment Solutions Income	119.8	43.52	126.23	26.23	115.44	4.90
Coronation Cash Plus - A	119.96	43.90	126.59	26.59	116.42	5.20
Investec High Income - A	121.07	46.58	123.48	23.48	113.68	4.37
Investec High Income - R	121.37	47.31	122.84	22.84	113.6	4.34
STANLIB Conservative FoF - A	121.01	46.43	131.07	31.07	111.06	3.56
Old Mutual Four Plus Capital FoF - A	127.16	61.70	138.76	38.76	125.47	7.86
Absa Dividend Income - A	110.07	21.15	111.11	11.11	100.04	0.01
Cadiz Absolute Yield - A	116.13	34.86	120.63	20.63	103.68	1.21
Harvard House Flexible Income	123.54	52.62	133.5	33.5	121.29	6.65
Imalivest Flexible	126.18	59.21	135.8	35.8	121.79	6.79
Investment Solutions Superior Cash	124.11	54.03	133.68	33.68	114.11	4.50
Marriott Income - R	123.98	53.71	130.34	30.34	112.86	4.12
Marriott Core Income - A	125.63	57.83	134.96	34.96	117.72	5.59
Metropolitan Inflation Linked Bond - A	126.47	59.95	139.42	39.42	133.49	10.11
Personal Trust Income	126.79	60.76	140.15	40.15	135.15	10.56
PSG Preferred Dividend	118.8	41.13	128.22	28.22	101.75	0.58

RMB Diversified Yield - A	118.49	40.40	127.52	27.52	100.03	0.01
RMB Income Plus - A	126.3	59.52	134.09	34.09	123.74	7.36
SIM Absolute Return Income	118.41	40.21	124.96	24.96	119.44	6.10
Sasfin Balanced	111.38	24.06	111.78	11.78	102.34	0.77
SIM Active Income - A1	117.12	37.17	121.28	21.28	114.07	4.49
N-e-FG Balanced	113.25	28.26	119.04	19.04	123.07	7.16
FG Jupiter Income FoF - A	108.6	17.94	110.71	10.71	124.7	7.64
IMC HiYield FoF	114.9	32.02	117.54	17.54	117.76	5.60
Matador Fixed Interest FoF - C	117.94	39.10	121.05	21.05	115.09	4.80
Old Mutual Four Plus Secure FoF - A	111.8	24.99	111.99	11.99	117.72	5.59
Noble PP Strategic Income FoF - A	114.59	31.31	119.42	19.42	123.5	7.29
Platinum Income Provider FoF	114.37	30.80	119.31	19.31	118.87	5.93
PSG Advance Wealth Income FoF - A	119.12	41.90	117.85	17.85	98.52	-0.50
PSG Alphen Income FoF - A	113.47	28.75	117.73	17.73	105.04	1.65
SYmmETRY Fixed Interest FoF - A	119.46	42.71	123.85	23.85	111.9	3.82
Alexander Forbes Conservative FoF	119.53	42.87	124.55	24.55	107.15	2.33
Xhilarator Multi-SA Flexible FoF - A	119.18	42.04	123.91	23.91	106.1	1.99
Absa Income Enhancer - A	122.02	48.89	127.05	27.05	108.21	2.67
Coronation Preference Share - A	119.96	43.90	127.6	27.6	101.36	0.45
Huysamer Flexible - A	108.91	18.61	110.94	10.94	124.44	7.56
Nedgroup Inv Flexible Income - R	108.98	18.77	110.72	10.72	118.78	5.90
Prescient Cash QuantPlus - A2	114.13	30.26	114.6	14.6	112.6	4.03
Prescient Cash QuantPlus - A1	106.06	12.49	102.43	2.43	109.26	3.00
Tri-Linear Cash Plus	111.71	24.79	114.52	14.52	119.3	6.06
Investec Absolute Income - A	111.64	24.63	116	16	109.03	2.92
Investec Cash Plus - A	116.98	36.84	123.52	23.52	122.25	6.93
Investec Opportunity Income - A	104.17	8.51	103.45	3.45	126.05	8.02
Nedgroup Inv Flexible Income - A	104.17	8.51	103.45	3.45	126.06	8.03
PSG Tanzanite Flexible	103.04	6.17	98.74	-1.26	119.47	6.11
Marriott High Income FoF - A	103.19	6.48	99.02	-0.98	120.46	6.40
Verso M-M Income Planner FoF - A	103.81	7.77	109.15	9.15	132.64	9.87
APS Cautious FoF - A	103.85	7.85	107.96	7.96	130.69	9.33
Element Flexible - A	104	8.16	108.27	8.27	131.67	9.60
Investec High Income Namibia - A	103.82	7.79	109.49	9.49	133.74	10.18
Investec Managed Namibia - R	104	8.16	112.38	12.38	116.87	5.33
Old Mutual Namibia Dynamic Floor	118.04	39.33	120.47	20.47	107.65	2.49
Old Mutual Namibia Managed	104.62	9.45	108.46	8.46	137.31	11.15
Old Mutual Namibia Growth	103.98	8.12	109.54	9.54	132.64	9.87
Allan Gray Stable - A	103.95	8.06	109.46	9.46	134.72	10.44
STANLIB Moderate FoF - A	104.98	10.21	108.73	8.73	130.74	9.35
Glacier Financial Solutions Moderate M-M FoF	103.95	8.06	108.54	8.54	132.2	9.75
Flagship Domestic Flexible - A	103.8	7.74	108.72	8.72	132.09	9.72
Investec Opportunity - A	104.05	8.26	105.78	5.78	130.11	9.17
Catalyst SA Property Equity - A	103.31	6.73	108.02	8.02	129.02	8.86
Coronation Property Equity - A	102.98	6.05	104.78	4.78	131.28	9.50
Dynamic Wealth Property - A	108.78	18.33	110.52	10.52	123.33	7.24
Dynamic Wealth Property - A1	104.85	9.94	108.77	8.77	127.12	8.33
Investec Property Equity - A	104.85	9.94	108.77	8.77	127.12	8.33
Investment Solutions Property Equity	104.04	8.24	110.14	10.14	122.73	7.07
Marriott Property Equity - R	104.04	8.24	110.14	10.14	122.73	7.07
Marriott Property Income - A	112.36	26.25	116.51	16.51	119.74	6.19
Metropolitan Property Income	112.36	26.25	116.51	16.51	119.74	6.19
N-e-FG Property Income	105.05	10.36	109.76	9.76	131.32	9.51
Oasis Property Equity	105.05	10.36	109.76	9.76	131.32	9.51
Old Mutual SA Quoted Property - A	118.26	39.85	121.83	21.83	130.67	9.33
Prudential Enhanced SA Property Tracker-A	111.86	25.13	115.68	15.68	97.14	-0.96
RMB Property - A	115.33	33.01	119.11	19.11	124.6	7.61
SIM Property - A	113.73	29.35	114.02	14.02	103.98	1.31
STANLIB M-M Flexible Property - A	108.96	18.72	112.94	12.94	126.28	8.09
Ankh Flexible FoF - A	105.63	11.58	108.92	8.92	121.1	6.59
STANLIB M-M Low Equity FoF - A	105.63	11.58	108.92	8.92	121.1	6.59
AS Forum Cautious FoF	106.05	12.47	106.84	6.84	119.74	6.19
Avocado Defensive FoF - A	106.05	12.47	106.84	6.84	119.74	6.19
N-e-FG Income Provider FoF	105.19	10.65	107.99	7.99	112.89	4.12
Alexander Forbes Balanced FoF	105.19	10.65	107.99	7.99	112.89	4.12
SIM Managed Conservative FoF - A1	109.23	19.31	112.81	12.81	112.5	4.00
SIM Managed Moderate FoF - A1	109.23	19.31	112.81	12.81	112.5	4.00
SIM Managed Moderate Aggressive FoF - A1	115.67	33.80	119.61	19.61	112.23	3.92
SIM Managed Aggressive FoF - A1	115.67	33.80	119.61	19.61	112.23	3.92
Hermes Flexible - A	118.77	41.06	118.69	18.69	112.14	3.89
RCI Flexible Managed - A	111.12	23.48	104.51	4.51	94.25	-1.95
Investec Cautious Managed - A	115.34	33.03	115.87	15.87	113.79	4.40

Momentum Balanced Income FoF - B1	105.5	11.30	110.22	10.22	115.17	4.82
Marriott International Growth Feeder - A	113	27.69	100.31	0.31	77.15	-8.28
Ankh Foreign Flexible FoF - A	113.31	28.39	100.89	0.89	78.36	-7.81
Midas Foreign Flexible FoF - A	114.71	31.58	101.29	1.29	85.02	-5.27
Old Mutual Intl Growth FoF - A	118.12	39.52	97.27	-2.73	80.7	-6.90
RMB International Balanced FoF - A	113.74	29.37	101.99	1.99	79.08	-7.53
RMB Intl Conservative FoF - A	113.47	28.75	101.09	1.09	76.74	-8.45
Sanlam Intl Balanced FoF	116.22	35.07	108.48	8.48	79.38	-7.41
Select Manager Global Growth FoF - A	116.31	35.28	108.01	8.01	76.99	-8.35
Absa Cautious FoF - A	115.42	33.22	102.87	2.87	85.51	-5.08
Allan Gray-Orbis Global FoF - A	133.69	78.73	129.9	29.9	69.64	-11.36
RMB Private Bank Global Flexible FoF - B1	122.7	50.55	99.59	-0.41	58.25	-16.48
Umbono Core Managed FoF	118.99	41.59	104.65	4.65	82.98	-6.03
Absa International - A	123.68	52.97	106.31	6.31	66.85	-12.56
Absa International - R	117.84	38.86	112.99	12.99	104.07	1.34
Nedgroup Inv Global Equity Feeder - A	121.69	48.08	131.21	31.21	129.6	9.03
Nedgroup Inv Intl Equity Feeder - R	129.55	67.83	137.58	37.58	126.53	8.16
Old Mutual Global Equity - A	116.72	36.24	103.57	3.57	93.81	-2.11
Sanlam Global Equity - R	114.51	31.13	118.98	18.98	116.19	5.13
Sanlam Global Equity - A	111.16	23.57	115.17	15.17	93	-2.39
SIM World Big Blue Chip - A1	99.29	-1.41	87.97	-12.03	136.37	10.89
Allan Gray-Orbis Global Equity Feeder - A	98.8	-2.39	82.93	-17.07	147.37	13.80
Old Mutual Futuregrowth Global Index FoF - R	103.73	7.60	98.69	-1.31	127.65	8.48
Sentinel Flexible FoF - A	96.28	-7.30	79.61	-20.39	122.77	7.08
db x-trackers FTSE 100 Index ETF	97.15	-5.62	80.59	-19.41	123.81	7.38
db x-trackers DJ Eurostoxx 50 Index ETF	95.59	-8.63	79.07	-20.93	115.13	4.81
Investec Worldwide Equity Feeder - R	95.77	-8.28	80.99	-19.01	116.84	5.32
Nedgroup Inv Intl Equity Feeder - A	105.08	10.42	93.49	-6.51	98.86	-0.38
RMB Global	99.5	-1.00	81.94	-18.06	113.41	4.28
Momentum Global Accumulator FoF - B1	92.48	-14.47	86.75	-13.25	97.83	-0.73
Fortress REIT - A	93.58	-12.43	77.89	-22.11	96.43	-1.20
Marriott International Real Estate Feeder - A	120.71	45.71	128	28	126.05	8.02
Sanlam Pan Europe	102.27	4.59	90.34	-9.66	128.75	8.79
STANLIB Intl Property - A	104.41	9.01	96.85	-3.15	126.52	8.16
Sanlam Asia Pacific FoF	95.04	-9.67	80.77	-19.23	115.21	4.83
Absa Global Bond - A	98.92	-2.15	86.75	-13.25	100.09	0.03
Coris Capital Intl Bond Feeder - A	96.27	-7.32	80.04	-19.96	123.41	7.26
Old Mutual Global Bond Feeder - A	94.27	-11.13	77.6	-22.4	109.48	3.07
RMB International Bond - A	110.52	22.15	91.76	-8.24	89.71	-3.55
Prudential Global High Yield Bond FoF	117.74	38.63	118.38	18.38	98.81	-0.40
STANLIB US Dollar Bond FoF - A	106.91	14.30	103.48	3.48	104.05	1.33
Absa Euro Income	113.53	28.89	110.17	10.17	105.43	1.78
Absa US Dollar Income	110.08	21.18	131.94	31.94	127.34	8.39
Glacier Intl Multi-Currency - B1	96.84	-6.22	82.15	-17.85	110.33	3.33
Interneuron Capital Freestyle	102.1	4.24	91.88	-8.12	108.26	2.68
Marriott Global Income - A	110.15	21.33	99.23	-0.77	86.76	-4.62
Old Mutual UK Money Market Feeder - A	105.44	11.18	93.17	-6.83	107.21	2.35
RMB Intl Income - A	99.68	-0.64	86.73	-13.27	110.37	3.34
Visio Actinio	108.96	18.72	92.1	-7.9	90.64	-3.22
Metropolitan Intl Specialist Income FoF - A	105.26	10.80	95.39	-4.61	99.78	-0.07
Prudential Global Income Plus FoF	106.94	14.36	112.47	12.47	117.41	5.50
STANLIB Euro Currency FoF - A	114.69	31.54	113.3	13.3	88.99	-3.81
STANLIB US Dollar Cash FoF - A	112.79	27.22	110.72	10.72	93.92	-2.07
Efficient Flexible FoF - A	119.46	42.71	123.44	23.44	115.75	5.00
Coronation Optimum Growth - A	119.47	42.73	111.48	11.48	81.01	-6.78
Personal Trust Vuna	122.66	50.45	102.45	2.45	88.83	-3.87
RMB World Wide Flexible	115.59	33.61	105.41	5.41	88.03	-4.16
Spyglass Flexible	118.13	39.55	97.26	-2.74	80.76	-6.88
IMC Worldwide Flexible FoF	115.43	33.24	99.75	-0.25	74.64	-9.29
Old Mutual Four Plus Global FoF - A	115.24	32.80	99.6	-0.4	84.88	-5.32
Platinum Flexible Growth FoF	113.34	28.46	112.08	12.08	92.13	-2.70
Flagship Worldwide Flexible - A	108.11	16.88	102.84	2.84	104.89	1.60
Nedgroup Inv Bravata Worldwide Flexible - A	110.74	22.63	112.5	12.5	101.99	0.66
Flagship Worldwide Flexible FoF - A	110.99	23.19	110.93	10.93	110.29	3.32
Marriott Worldwide Flexible FoF - A	104.77	9.77	91.36	-8.64	97.2	-0.94
STANLIB Multi-National - A	111.25	23.77	117.68	17.68	125.9	7.98
STANLIB Global Science & Technology - A	104.9	10.04	96.86	-3.14	131.26	9.49
SIM Resources	114.07	30.12	102.76	2.76	96.09	-1.32

Table A1.3

This table summarises the data per fund, showing the annualized volatility of the fund and the fund classification to which the fund is allocated.

Fund Name	Volatility (Annualised %)	Fund classification
Phire Defensive FoF	13.07	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
PSG Advance Wealth Preserver FoF - A	10.8	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
PSG Alphen Prudential FoF	8.06	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investment Solutions M-M Balanced FoF	14.02	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Absa Inflation Beater - A	17.83	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Absa Inflation Beater - A	16.43	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Nedgroup Investments Optimal Income - A	16.13	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Nedgroup Investments Optimal Income - A	19.98	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Umbono Absolute Return - A	19.28	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Umbono Absolute Return - A	18.89	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investec Absolute Balanced - A	20.83	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investec Absolute Balanced - A	15.01	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Nedgroup Inv Quants Core Equity - A	10.4	Domestic - Equity - General Funds
Nedgroup Inv Quants Core Equity - R	10.4	Domestic - Equity - General Funds
Nedgroup Inv Equity - A	8.47	Domestic - Equity - General Funds
Nedgroup Inv Equity - R	11.13	Domestic - Equity - General Funds
Oasis Crescent Equity	6.33	Domestic - Equity - General Funds
Oasis General Equity	16.24	Domestic - Equity - General Funds
Old Mutual High Yield Opportunity - A	5.09	Domestic - Equity - General Funds
Old Mutual Top Companies - R	12.75	Domestic - Equity - General Funds
Stringfellow Stable FoF	9.62	Domestic - Equity - General Funds
Alexander Forbes Moderate FoF	4.98	Domestic - Equity - General Funds
Alexander Forbes Moderately Aggressive FoF	4.13	Domestic - Equity - General Funds
Lynx Cautious FoF - A1	4.29	Domestic - Equity - General Funds
STANLIB M-M All Stars Equity FoF - A	14.96	Domestic - Equity - General Funds
Aylett Equity - A3	7.61	Domestic - Equity - General Funds
Foord Equity	13.59	Domestic - Equity - General Funds
Nedgroup Inv Value - A	4.01	Domestic - Equity - Value Funds
Nedgroup Inv Value - R	4.01	Domestic - Equity - Value Funds
Old Mutual Value - R	8.33	Domestic - Equity - Value Funds
RMB Value - A	8.33	Domestic - Equity - Value Funds
SIM Value	9.57	Domestic - Equity - Value Funds
STANLIB Value - A	9.57	Domestic - Equity - Value Funds
Cadiz Mastermind - A	5.1	Domestic - Equity - Value Funds
Prudential Dividend Maximiser - A	12.82	Domestic - Equity - Value Funds
STANLIB M-M Bond Feeder - A	11.23	Domestic - Fixed Interest - Bond Funds
Investment Solutions Pure Fixed Interest	9.8	Domestic - Fixed Interest - Bond Funds
Allan Gray Bond - A	4.28	Domestic - Fixed Interest - Bond Funds
Personal Trust Active FoF	8.46	Domestic - Fixed Interest - Bond Funds
Dynamic Wealth Accumulator FoF - A1	10.37	Domestic - Fixed Interest - Bond Funds
Metropolitan Odyssey Conservative FoF	12.29	Domestic - Fixed Interest - Bond Funds
STANLIB Dividend Income - A	10.23	Domestic - Fixed Interest - Varied Specialist Funds
STANLIB Flexible Income - A	11.48	Domestic - Fixed Interest - Varied Specialist Funds
STANLIB Corporate Bond - A	13.88	Domestic - Fixed Interest - Varied Specialist Funds
STANLIB Aggressive Income - A	17.31	Domestic - Fixed Interest - Varied Specialist Funds
Coronation Strategic Income - A	18.36	Domestic - Fixed Interest - Varied Specialist Funds
Glacier Financial Solutions Conservative Multi-Managed	22.26	Domestic - Fixed Interest - Varied Specialist Funds
Old Mutual Enhanced Income - A	20.97	Domestic - Fixed Interest - Varied Specialist Funds
PSG Alphen Optimal Income	20.99	Domestic - Fixed Interest - Varied Specialist Funds
PSG Alphen Flexible - A	21.18	Domestic - Fixed Interest - Varied Specialist Funds
APS Moderate FoF - A	3.73	Domestic - Namibia - Varied Specialist Funds
Absa Property Equity	14.9	Domestic - Real Estate - General Funds
STANLIB M-M Property - A	4.38	Domestic - Real Estate - General Funds
STANLIB Property Income - A	4.38	Domestic - Real Estate - General Funds
Oasis Balanced	5.95	Domestic - Real Estate - General Funds
Old Mutual Real Income - A	5.95	Domestic - Real Estate - General Funds
ValuGro Property	11.52	Domestic - Real Estate - General Funds
Old Mutual Global Equity - R	14.89	Foreign - Equity - General Funds
Quantum Conservative FoF - A	14.4	Foreign - Fixed Interest - Varied Specialist Funds
36One Flexible Opportunity	10.37	Domestic - Asset Allocation - Flexible Funds
4i Stable FoF - A	16.15	Domestic - Asset Allocation - Prudential Low Equity Funds
Absa Balanced - A	13.39	Domestic - Asset Allocation - Prudential Medium Equity Funds

STANLIB Balanced Trustees FoF - A	13.96	Domestic - Asset Allocation - Prudential Medium Equity Funds
Old Mutual Four Plus Growth FoF - A	14.04	Domestic - Asset Allocation - Prudential Medium Equity Funds
BlueAlpha All Seasons	15.56	Domestic - Asset Allocation - Prudential Variable Equity Funds
Cadiz Managed Flexible - A	15.65	Domestic - Asset Allocation - Prudential Variable Equity Funds
SIM Balanced - A	15.65	Domestic - Asset Allocation - Prudential Variable Equity Funds
SIM Balanced - R	17.38	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Balanced - A	8.81	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Balanced - R	12.62	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Balanced - B1	12.55	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Quants - A	9.73	Domestic - Asset Allocation - Prudential Variable Equity Funds
Contego B6 Protected Balanced	12.15	Domestic - Asset Allocation - Prudential Variable Equity Funds
Coronation Balanced Plus - A	9.18	Domestic - Asset Allocation - Prudential Variable Equity Funds
FNB Balanced	13.53	Domestic - Asset Allocation - Prudential Variable Equity Funds
Interneuron Capital Managed	12.2	Domestic - Asset Allocation - Prudential Variable Equity Funds
Matador Balanced - C	12.53	Domestic - Asset Allocation - Prudential Variable Equity Funds
Metropolitan Absolute Provider	12.56	Domestic - Asset Allocation - Prudential Variable Equity Funds
Old Mutual Balanced - R	7.34	Domestic - Asset Allocation - Prudential Variable Equity Funds
Prudential Balanced - A	11.4	Domestic - Asset Allocation - Prudential Variable Equity Funds
RMB Balanced - A	22.93	Domestic - Asset Allocation - Prudential Variable Equity Funds
RMB Balanced - R	24.65	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Dynamic Return - A	24.83	Domestic - Asset Allocation - Prudential Variable Equity Funds
Tri-Linear Balanced	22.14	Domestic - Asset Allocation - Prudential Variable Equity Funds
Coronation Absolute - A	23.61	Domestic - Asset Allocation - Prudential Variable Equity Funds
Allan Gray Balanced - A	24.66	Domestic - Asset Allocation - Prudential Variable Equity Funds
Old Mutual Dynamic Floor - A	21.19	Domestic - Asset Allocation - Prudential Variable Equity Funds
Dotport Dynamic Flexible FoF	20.51	Domestic - Asset Allocation - Prudential Variable Equity Funds
GCI Flexible FoF	16.12	Domestic - Asset Allocation - Prudential Variable Equity Funds
STANLIB Moderately Aggressive FoF - A	16.69	Domestic - Asset Allocation - Prudential Variable Equity Funds
4i Balanced FoF - A	17.2	Domestic - Asset Allocation - Prudential Variable Equity Funds
AS Forum Moderate FoF	20.87	Domestic - Asset Allocation - Prudential Variable Equity Funds
Crescent Balanced Progressive FoF	18.97	Domestic - Asset Allocation - Prudential Variable Equity Funds
Dotport Dynamic Stable Prudential FoF	18.2	Domestic - Asset Allocation - Prudential Variable Equity Funds
GCI Balanced FoF	18.76	Domestic - Asset Allocation - Prudential Variable Equity Funds
Matador Defensive FoF - C	18.77	Domestic - Asset Allocation - Prudential Variable Equity Funds
Metropolitan Odyssey Balanced FoF	14.94	Domestic - Asset Allocation - Prudential Variable Equity Funds
Noble PP Balanced FoF - A	15.36	Domestic - Asset Allocation - Prudential Variable Equity Funds
Noble PP Wealth Creator FoF - A	19.45	Domestic - Asset Allocation - Prudential Variable Equity Funds
Oasis Balanced Stable FoF	19.4	Domestic - Asset Allocation - Prudential Variable Equity Funds
PSG Advance Wealth Moderate FoF - A	18.9	Domestic - Asset Allocation - Prudential Variable Equity Funds
Sentinel Diversified Income FoF	22.04	Domestic - Asset Allocation - Prudential Variable Equity Funds
Sentinel Prudential FoF - A	18.37	Domestic - Asset Allocation - Prudential Variable Equity Funds
SYmmETRY Defensive FoF - A	19.1	Domestic - Asset Allocation - Prudential Variable Equity Funds
SYmmETRY Balanced FoF - A	12.91	Domestic - Asset Allocation - Prudential Variable Equity Funds
Lynx Balanced FoF - A1	13.02	Domestic - Asset Allocation - Prudential Variable Equity Funds
Xhilarator Multi-SA Balanced FoF - A	19.7	Domestic - Asset Allocation - Prudential Variable Equity Funds
Efficient Prudential - A	16.46	Domestic - Asset Allocation - Prudential Variable Equity Funds
Hermes Flexible - R	16.62	Domestic - Asset Allocation - Prudential Variable Equity Funds
Investec Managed - A	18.09	Domestic - Asset Allocation - Prudential Variable Equity Funds
Investec Managed - R	18.18	Domestic - Asset Allocation - Prudential Variable Equity Funds
Nedgroup Inv Managed - A	20.33	Domestic - Asset Allocation - Prudential Variable Equity Funds
Nedgroup Inv Managed - R	20.53	Domestic - Asset Allocation - Prudential Variable Equity Funds
Nedgroup Inv Balanced - A	17.08	Domestic - Asset Allocation - Prudential Variable Equity Funds
Prescient Balanced Quant Plus - A1	17.14	Domestic - Asset Allocation - Prudential Variable Equity Funds
Rezco Value Trend	19.59	Domestic - Asset Allocation - Prudential Variable Equity Funds
Foord Balanced	19.89	Domestic - Asset Allocation - Prudential Variable Equity Funds
Efficient Prudential FoF - A	20.01	Domestic - Asset Allocation - Prudential Variable Equity Funds
Momentum Builder FoF	20.14	Domestic - Asset Allocation - Prudential Variable Equity Funds
Umbono Stable Managed FoF	18.92	Domestic - Asset Allocation - Prudential Variable Equity Funds
Verso M-M Secure Growth FoF - A	20.72	Domestic - Asset Allocation - Prudential Variable Equity Funds
Analytics Moderate FoF - A	15.2	Domestic - Asset Allocation - Prudential Variable Equity Funds
Analytics Balanced FoF - A	19.38	Domestic - Asset Allocation - Prudential Variable Equity Funds
Marriott Prudential FoF - A	19.39	Domestic - Asset Allocation - Prudential Variable Equity Funds
Verso M-M Balanced Growth FoF - A	21.16	Domestic - Asset Allocation - Prudential Variable Equity Funds
Verso M-M Managed Equity FoF - A	19.53	Domestic - Asset Allocation - Prudential Variable Equity Funds
36One Target Return	19.58	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
36One Target Return	16.26	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Absa Absolute	21.49	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Absa Absolute	21.57	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Advantage Real Return Core - A	21.66	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Advantage Real Return Core - A	23.37	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Cadiz Inflation Plus	23.4	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Cadiz Inflation Plus	18.79	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds

Cadiz Equity Ladder	5.9	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Cadiz Equity Ladder	9.44	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Centaur Flexible	18.93	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Contego B5 Protected Equity	19.05	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Contego B5 Protected Equity	15.26	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Dynamic Wealth Optimal - A	20.4	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Dynamic Wealth Optimal - A	20.42	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Element Real Income - A	18.87	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Element Real Income - A	18.93	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investment Solutions Real Return Focus	22.17	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investment Solutions Real Return Focus	22.26	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
JMBusha Real Return	18.1	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
JMBusha Real Return	19.92	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Kagiso Protector - A	20.99	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Kagiso Protector - A	17.19	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Real Income - A1	19.58	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Real Income - A1	18.23	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Prudential Inflation Plus - A	18.34	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB Absolute Focus - A	18.93	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB Absolute Focus - A	19.11	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB High Dividend - A	20.6	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB High Dividend - A	22.81	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Sasfin Wealth Preserver	22.3	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SIM Inflation Plus	20.81	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Cash Plus - A	22.45	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Cash Plus - A	22.19	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB M-M Real Return Feeder - A	22.34	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB M-M Real Return Feeder - A	29.16	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Inflation Plus 3% - A	29.49	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Inflation Plus 3% - A	26.09	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Managed Flexible - A	26.14	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB Managed Flexible - A	27.09	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Absa Balanced - R	28.03	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 3 - A1	32.03	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 3 - A1	31.67	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 5 - A1	28.68	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 5 - A1	29.05	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 7 - A1	31.34	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Peregrine Inflation Plus 7 - A1	31.39	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Prudential Inflation Plus - A	18.73	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SIM Inflation Plus	20.99	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Allan Gray Optimal - A	21.18	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Allan Gray Optimal - A	20.75	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Coronation Capital Plus - A	18.93	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Coronation Capital Plus - A	20.87	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Coronation SA Capital Plus - A	20.9	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Coronation SA Capital Plus - A	27.34	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
4i Absolute Return FoF - A	27.36	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Dinamika Conservative FoF	19.29	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Dinamika Conservative FoF	18.45	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
PSG Advance Wealth Preserver FoF - A	18.7	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Defensive FoF	21.77	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Defensive FoF	21.64	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB M-M Medium Equity FoF - A	19.45	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
STANLIB M-M High Equity FoF - A	20.05	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
4i Absolute Return FoF - A	20.25	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Baroque Moderato FoF	16.77	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Investec Opportunity - R	7.88	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Sygnia Alpha Plus - A	5.19	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Sygnia Alpha Plus - A	11.25	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Nedgroup Inv Positive Return - A	6.22	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Nedgroup Inv Positive Return - A	6.67	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Momentum Dynamic Asset Allocator FoF - B1	16.22	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Momentum Dynamic Asset Allocator FoF - B1	11.16	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB Private Bank Defensive FoF - B1	10.4	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
RMB Private Bank Defensive FoF - B1	12.3	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Protection Solution 3 FoF - A	4.88	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Protection Solution 3 FoF - A	6.44	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Absolute Solution 5 FoF - A	7.56	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Absolute Solution 5 FoF - A	10.28	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Long Term Growth Solution 7 FoF - A	5.59	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
SMMI Long Term Growth Solution 7 FoF - A	6.75	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds

APS Managed Growth FoF - A	8.77	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Quantum Balanced FoF - A	10.89	Domestic - Asset Allocation - Targeted Absolute and Real Return Funds
Coronation Financial - A	3.36	Domestic - Equity - Financial Funds
Nedgroup Inv Financials - A	8.45	Domestic - Equity - Financial Funds
Nedgroup Inv Financials - R	8.18	Domestic - Equity - Financial Funds
Old Mutual Financial Services - R	10.27	Domestic - Equity - Financial Funds
RMB Financial Services - A	11.67	Domestic - Equity - Financial Funds
Satrix FINI - A	12.32	Domestic - Equity - Financial Funds
SIM Financial	17.37	Domestic - Equity - Financial Funds
STANLIB Financials - A	16.55	Domestic - Equity - Financial Funds
Coronation Market Plus - A	11.71	Domestic - Equity - Financial Funds
Avocado Dynamic FoF - A	16.66	Domestic - Equity - Financial Funds
Noble PP All Weather FoF - A	12.38	Domestic - Equity - Financial Funds
Absa Flexible	16.4	Domestic - Equity - General Funds
Absa Select Equity	8.96	Domestic - Equity - General Funds
Absa General - R	9.38	Domestic - Equity - General Funds
Cannon Equity	15.9	Domestic - Equity - General Funds
Community Growth - A	10.95	Domestic - Equity - General Funds
Coris Capital General Equity - A	16.92	Domestic - Equity - General Funds
Coronation Equity - R	17.53	Domestic - Equity - General Funds
Coronation Equity - A	7.49	Domestic - Equity - General Funds
Element Earth Equity - A	7.67	Domestic - Equity - General Funds
Element Islamic Equity - A	9.94	Domestic - Equity - General Funds
FNB Growth	12.18	Domestic - Equity - General Funds
Futuregrowth Albaraka Equity - A	8.69	Domestic - Equity - General Funds
Harvard House General Equity	12.12	Domestic - Equity - General Funds
Interneuron Capital Equity	9.78	Domestic - Equity - General Funds
Kagiso Equity Alpha - A	10.37	Domestic - Equity - General Funds
Maestro Equity - A	10.13	Domestic - Equity - General Funds
Marriott Dividend Growth - R	12.26	Domestic - Equity - General Funds
Melville Douglas Dynamic Strategy - A	14.72	Domestic - Equity - General Funds
Metropolitan General Equity	11.52	Domestic - Equity - General Funds
Nedgroup Inv Rainmaker - A	18.65	Domestic - Equity - General Funds
Nedgroup Inv Rainmaker - R	16.27	Domestic - Equity - General Funds
Old Mutual Investors - R	7.71	Domestic - Equity - General Funds
Old Mutual Growth - R	9.7	Domestic - Equity - General Funds
Peregrine Beta Equity - B2	8.55	Domestic - Equity - General Funds
PSG Alphen Growth - A	9.32	Domestic - Equity - General Funds
RMB High Tide - A	8.77	Domestic - Equity - General Funds
RMB Equity - A	5.41	Domestic - Equity - General Funds
RMB Equity - R	8.52	Domestic - Equity - General Funds
Sasfin TwentyTen	8.16	Domestic - Equity - General Funds
SIM General Equity - A	8.06	Domestic - Equity - General Funds
SIM General Equity - R	8.42	Domestic - Equity - General Funds
STANLIB M-M Equity - A1	8.34	Domestic - Equity - General Funds
STANLIB Equity - A	8.34	Domestic - Equity - General Funds
STANLIB Equity - R	8.76	Domestic - Equity - General Funds
STANLIB Index - R	3.86	Domestic - Equity - General Funds
STANLIB Prosperity - A	4.04	Domestic - Equity - General Funds
STANLIB Prosperity - R	1.73	Domestic - Equity - General Funds
Tri-Linear Equity	3.88	Domestic - Equity - General Funds
RMB Conservative - A	3.94	Domestic - Equity - General Funds
RMB Moderate - A	4.27	Domestic - Equity - General Funds
Allan Gray Equity - A	3.03	Domestic - Equity - General Funds
Investment Solutions M-M Equity	6.75	Domestic - Equity - General Funds
Prudential Equity - A	4.58	Domestic - Equity - General Funds
SIM Top Choice Equity - A1	15.53	Domestic - Equity - General Funds
ValuGro General Equity	4.27	Domestic - Equity - General Funds
Absa Growth FoF	3.01	Domestic - Equity - General Funds
Capstone Active Equity FoF	3.85	Domestic - Equity - General Funds
FG Saturn Flexible FoF - A	4.99	Domestic - Equity - General Funds
FG Mercury Equity FoF - A	4.29	Domestic - Equity - General Funds
Glacier Financial Solutions Flexible M-M FoF	8.88	Domestic - Equity - General Funds
Matador Equity FoF - C	4.02	Domestic - Equity - General Funds
Personal Trust Prudent FoF - A	5.99	Domestic - Equity - General Funds
PSG Macro Active FoF	5.11	Domestic - Equity - General Funds
PSG Alphen Equity FoF - A	2.17	Domestic - Equity - General Funds
SMMI Balanced FoF - A	6.43	Domestic - Equity - General Funds
SMMI Equity FoF	6.5	Domestic - Equity - General Funds
SYmmETRY Equity FoF - A	9.27	Domestic - Equity - General Funds
Dynamic Wealth Preserver FoF - A1	4.16	Domestic - Equity - General Funds
Dynamic Wealth Preserver FoF - A	3.6	Domestic - Equity - General Funds

Dynamic Wealth Accumulator FoF - A	4.9	Domestic - Equity - General Funds
Dynamic Wealth Creator FoF - A	4.6	Domestic - Equity - General Funds
Platinum Balanced Prudential FoF	12.79	Domestic - Equity - General Funds
Select Manager Flexible Growth FoF - A	11.42	Domestic - Equity - General Funds
SIM Managed Cautious FoF - A1	17.95	Domestic - Equity - General Funds
Analytics Managed Equity - A	9.96	Domestic - Equity - General Funds
Gryphon All Share Tracker - A	5.37	Domestic - Equity - General Funds
Hermes Equity - A	7.58	Domestic - Equity - General Funds
Hermes Equity - R	5.91	Domestic - Equity - General Funds
Huysamer Equity - A	5.63	Domestic - Equity - General Funds
Indequity Technical	3.84	Domestic - Equity - General Funds
Investec Equity - R	4.17	Domestic - Equity - General Funds
Investec Active Quants - R	3.48	Domestic - Equity - General Funds
Osborne Flexible - A1	3.11	Domestic - Equity - General Funds
Osborne Equity - A1	4.05	Domestic - Equity - General Funds
Prescient Equity Active Quant - A1	3.52	Domestic - Equity - General Funds
Prescient Equity Quant - A1	4.28	Domestic - Equity - General Funds
RMB Private Bank Equity - A	4.5	Domestic - Equity - General Funds
Investec Equity - A	20.47	Domestic - Equity - General Funds
Investec Active Quants - A	16	Domestic - Equity - General Funds
Kruger Flexible FoF - A	16	Domestic - Equity - General Funds
Momentum Aggressive Prudential FoF - B1	4.97	Domestic - Equity - General Funds
Momentum Accumulator FoF	4.97	Domestic - Equity - General Funds
Momentum Moderate Equity FoF - B1	4.97	Domestic - Equity - General Funds
Momentum Aggressive Equity FoF - B1	4.97	Domestic - Equity - General Funds
Momentum Multifocus FoF	10.66	Domestic - Equity - General Funds
RMB Private Bank Growth FoF - B1	10.66	Domestic - Equity - General Funds
Analytics Cautious FoF - A	15.31	Domestic - Equity - General Funds
Kruger Prudential FoF - A	15.31	Domestic - Equity - General Funds
Kruger Balanced FoF - A	19.9	Domestic - Equity - General Funds
Quantum Capital Plus FoF - A	12.7	Domestic - Equity - General Funds
Nedgroup Inv Growth - A	12.7	Domestic - Equity - Growth Funds
Nedgroup Inv Growth - R	18.98	Domestic - Equity - Growth Funds
Old Mutual Flexible - R	18.98	Domestic - Equity - Growth Funds
RMB Strategic Opportunities - A	6.48	Domestic - Equity - Growth Funds
RMB Strategic Opportunities - R	6.48	Domestic - Equity - Growth Funds
SIM Growth - A	6.65	Domestic - Equity - Growth Funds
SIM Growth - R	6.65	Domestic - Equity - Growth Funds
STANLIB Growth - A	6.63	Domestic - Equity - Growth Funds
STANLIB Growth - R	6.63	Domestic - Equity - Growth Funds
Investec Growth - R	11.75	Domestic - Equity - Growth Funds
Investec Growth - B	11.75	Domestic - Equity - Growth Funds
Investec Growth - A	3.68	Domestic - Equity - Growth Funds
Coronation Industrial	3.68	Domestic - Equity - Industrial Funds
Metropolitan Industrial	8.24	Domestic - Equity - Industrial Funds
Old Mutual Industrial - A	2.84	Domestic - Equity - Industrial Funds
RMB Industrial - A	2.84	Domestic - Equity - Industrial Funds
Satrix INDI - A	8.23	Domestic - Equity - Industrial Funds
SIM Industrial - A	8.23	Domestic - Equity - Industrial Funds
SIM Industrial - R	6.7	Domestic - Equity - Industrial Funds
STANLIB Industrial - A	7.45	Domestic - Equity - Industrial Funds
STANLIB Industrial - R	0.3	Domestic - Equity - Industrial Funds
STANLIB Moderately Conservative FoF - A	0.3	Domestic - Equity - Industrial Funds
Select Manager Prudential Active FoF - A	6.35	Domestic - Equity - Industrial Funds
Momentum Consolidator FoF	6.35	Domestic - Equity - Industrial Funds
Cannon Core Companies	7.17	Domestic - Equity - Large Cap Funds
Old Mutual Top 40 - A	7.17	Domestic - Equity - Large Cap Funds
RMB Top 40 Index - A	8.84	Domestic - Equity - Large Cap Funds
Satrix SWIX TOP 40 - A	8.84	Domestic - Equity - Large Cap Funds
Satrix 40 - A	10.54	Domestic - Equity - Large Cap Funds
SIM Index	4.94	Domestic - Equity - Large Cap Funds
STANLIB ALSI 40 - A	4.94	Domestic - Equity - Large Cap Funds
Coronation Top 20 - A	7.05	Domestic - Equity - Large Cap Funds
AS Forum Aggressive FoF	7.05	Domestic - Equity - Large Cap Funds
Kagiso Top 40 Tracker - R	10.39	Domestic - Equity - Large Cap Funds
Momentum Balanced Prudential FoF - B1	10.39	Domestic - Equity - Large Cap Funds
Coronation Resources - A	8.24	Domestic - Equity - Resources & Basic Industries Funds
Metropolitan Resources	7.45	Domestic - Equity - Resources & Basic Industries Funds
Nedgroup Inv Mining & Resource - A	9.24	Domestic - Equity - Resources & Basic Industries Funds
Nedgroup Inv Mining & Resource - R	7.56	Domestic - Equity - Resources & Basic Industries Funds
Old Mutual Gold - R	12.78	Domestic - Equity - Resources & Basic Industries Funds
Old Mutual Mining and Resources - R	7.21	Domestic - Equity - Resources & Basic Industries Funds

RMB Resources	12.79	Domestic - Equity - Resources & Basic Industries Funds
Satrix RESI - A	19.18	Domestic - Equity - Resources & Basic Industries Funds
STANLIB Gold and Precious Metals - R	19.39	Domestic - Equity - Resources & Basic Industries Funds
STANLIB Gold and Precious Metals - A	19.93	Domestic - Equity - Resources & Basic Industries Funds
STANLIB Resources - A	18.01	Domestic - Equity - Resources & Basic Industries Funds
STANLIB Resources - R	19.46	Domestic - Equity - Resources & Basic Industries Funds
Investec Commodity - A	19.54	Domestic - Equity - Resources & Basic Industries Funds
Investec Commodity - R	17.34	Domestic - Equity - Resources & Basic Industries Funds
Umbono Moderate Managed FoF	19.81	Domestic - Equity - Resources & Basic Industries Funds
Coronation Smaller Companies - R	8.76	Domestic - Equity - Smaller Companies Funds
Nedgroup Inv Entrepreneur - A	14.28	Domestic - Equity - Smaller Companies Funds
Nedgroup Inv Entrepreneur - R	19.12	Domestic - Equity - Smaller Companies Funds
Old Mutual Small Companies - R	17.16	Domestic - Equity - Smaller Companies Funds
RMB Small Mid-Cap - A	16.2	Domestic - Equity - Smaller Companies Funds
SIM Small Cap - A	20.4	Domestic - Equity - Smaller Companies Funds
SIM Small Cap - R	19.45	Domestic - Equity - Smaller Companies Funds
STANLIB Small Cap - R	19.98	Domestic - Equity - Smaller Companies Funds
STANLIB Small Cap - A	17.85	Domestic - Equity - Smaller Companies Funds
Absa Allrounder FoF	14.08	Domestic - Equity - Smaller Companies Funds
Absa Prudential FoF	19.52	Domestic - Equity - Smaller Companies Funds
Investec Emerging Companies - R	19.92	Domestic - Equity - Smaller Companies Funds
Investec Emerging Companies - A	11.54	Domestic - Equity - Smaller Companies Funds
Metropolitan High Dividend	5.23	Domestic - Equity - Value Funds
STANLIB Aggressive FoF - A	6.9	Domestic - Equity - Value Funds
Alexander Forbes Aggressive FoF	5.87	Domestic - Equity - Value Funds
Investec Value - R	5.87	Domestic - Equity - Value Funds
Investec Value - A	6.07	Domestic - Equity - Value Funds
Absa Rand Protector	7.64	Domestic - Equity - Varied Specialist Funds
Personal Trust High Yield Growth	7.64	Domestic - Equity - Varied Specialist Funds
Select Manager Defensive Equity FoF	9.44	Domestic - Equity - Varied Specialist Funds
Umbono Balanced - A	12.24	Domestic - Equity - Varied Specialist Funds
Absa Bond - A	6.9	Domestic - Fixed Interest - Bond Funds
Community Gilt - A	8.88	Domestic - Fixed Interest - Bond Funds
Coris Capital Gilt - A	4.21	Domestic - Fixed Interest - Bond Funds
Coronation Bond - R	6.07	Domestic - Fixed Interest - Bond Funds
Metropolitan Gilt	7.08	Domestic - Fixed Interest - Bond Funds
Oasis Bond	12.3	Domestic - Fixed Interest - Bond Funds
Old Mutual Bond - R	11.38	Domestic - Fixed Interest - Bond Funds
Prudential High Yield Bond - A	13.3	Domestic - Fixed Interest - Bond Funds
RMB Bond - A	6.15	Domestic - Fixed Interest - Bond Funds
SIM Bond Plus	5.08	Domestic - Fixed Interest - Bond Funds
STANLIB Bond - A	7.89	Domestic - Fixed Interest - Bond Funds
STANLIB Bond - R	6.58	Domestic - Fixed Interest - Bond Funds
Nedgroup Inv Bond - R	15.74	Domestic - Fixed Interest - Bond Funds
Nedgroup Inv Bond - A	12.37	Domestic - Fixed Interest - Bond Funds
Investec Gilt - A	13.21	Domestic - Fixed Interest - Bond Funds
Investec Gilt - R	13.26	Domestic - Fixed Interest - Bond Funds
Coronation Income	10.63	Domestic - Fixed Interest - Income Funds
Old Mutual Income - R	10.72	Domestic - Fixed Interest - Income Funds
RMB Maximum Income - A	13.57	Domestic - Fixed Interest - Income Funds
STANLIB Extra Income - R	10.97	Domestic - Fixed Interest - Income Funds
STANLIB M-M Income Feeder - A	17.63	Domestic - Fixed Interest - Income Funds
STANLIB Income - R	21.3	Domestic - Fixed Interest - Income Funds
Investment Solutions Income	17.3	Domestic - Fixed Interest - Income Funds
Coronation Cash Plus - A	17.32	Domestic - Fixed Interest - Income Funds
Investec High Income - A	18.54	Domestic - Fixed Interest - Income Funds
Investec High Income - R	18.03	Domestic - Fixed Interest - Income Funds
STANLIB Conservative FoF - A	18.11	Domestic - Fixed Interest - Money Market Funds
Old Mutual Four Plus Capital FoF - A	22.48	Domestic - Fixed Interest - Money Market Funds
Absa Dividend Income - A	15.09	Domestic - Fixed Interest - Varied Specialist Funds
Cadiz Absolute Yield - A	18.47	Domestic - Fixed Interest - Varied Specialist Funds
Harvard House Flexible Income	20.13	Domestic - Fixed Interest - Varied Specialist Funds
Imalivest Flexible	22.42	Domestic - Fixed Interest - Varied Specialist Funds
Investment Solutions Superior Cash	20.25	Domestic - Fixed Interest - Varied Specialist Funds
Marriott Income - R	21.05	Domestic - Fixed Interest - Varied Specialist Funds
Marriott Core Income - A	22.41	Domestic - Fixed Interest - Varied Specialist Funds
Metropolitan Inflation Linked Bond - A	30.18	Domestic - Fixed Interest - Varied Specialist Funds
Personal Trust Income	30.23	Domestic - Fixed Interest - Varied Specialist Funds
PSG Preferred Dividend	23.43	Domestic - Fixed Interest - Varied Specialist Funds
RMB Diversified Yield - A	23.45	Domestic - Fixed Interest - Varied Specialist Funds
RMB Income Plus - A	21.75	Domestic - Fixed Interest - Varied Specialist Funds
SIM Absolute Return Income	13.97	Domestic - Fixed Interest - Varied Specialist Funds

Sasfin Balanced	11.15	Domestic - Fixed Interest - Varied Specialist Funds
SIM Active Income - A1	11.51	Domestic - Fixed Interest - Varied Specialist Funds
N-e-FG Balanced	7.73	Domestic - Fixed Interest - Varied Specialist Funds
FG Jupiter Income FoF - A	6.14	Domestic - Fixed Interest - Varied Specialist Funds
IMC HiYield FoF	10.46	Domestic - Fixed Interest - Varied Specialist Funds
Matador Fixed Interest FoF - C	12.59	Domestic - Fixed Interest - Varied Specialist Funds
Old Mutual Four Plus Secure FoF - A	5.83	Domestic - Fixed Interest - Varied Specialist Funds
Noble PP Strategic Income FoF - A	10.22	Domestic - Fixed Interest - Varied Specialist Funds
Platinum Income Provider FoF	11.44	Domestic - Fixed Interest - Varied Specialist Funds
PSG Advance Wealth Income FoF - A	14.98	Domestic - Fixed Interest - Varied Specialist Funds
PSG Alphen Income FoF - A	11.91	Domestic - Fixed Interest - Varied Specialist Funds
SYmmETRY Fixed Interest FoF - A	13.11	Domestic - Fixed Interest - Varied Specialist Funds
Alexander Forbes Conservative FoF	16.04	Domestic - Fixed Interest - Varied Specialist Funds
Xhilarator Multi-SA Flexible FoF - A	16.34	Domestic - Fixed Interest - Varied Specialist Funds
Absa Income Enhancer - A	16.74	Domestic - Fixed Interest - Varied Specialist Funds
Coronation Preference Share - A	16.49	Domestic - Fixed Interest - Varied Specialist Funds
Huysamer Flexible - A	5.87	Domestic - Fixed Interest - Varied Specialist Funds
Nedgroup Inv Flexible Income - R	5.73	Domestic - Fixed Interest - Varied Specialist Funds
Prescient Cash QuantPlus - A2	9.93	Domestic - Fixed Interest - Varied Specialist Funds
Prescient Cash QuantPlus - A1	5.93	Domestic - Fixed Interest - Varied Specialist Funds
Tri-Linear Cash Plus	7.35	Domestic - Fixed Interest - Varied Specialist Funds
Investec Absolute Income - A	10.71	Domestic - Fixed Interest - Varied Specialist Funds
Investec Cash Plus - A	11.78	Domestic - Fixed Interest - Varied Specialist Funds
Investec Opportunity Income - A	6.18	Domestic - Fixed Interest - Varied Specialist Funds
Nedgroup Inv Flexible Income - A	6.18	Domestic - Fixed Interest - Varied Specialist Funds
PSG Tanzanite Flexible	8.23	Domestic - Fixed Interest - Varied Specialist Funds
Marriott High Income FoF - A	8.26	Domestic - Fixed Interest - Varied Specialist Funds
Verso M-M Income Planner FoF - A	0.49	Domestic - Fixed Interest - Varied Specialist Funds
APS Cautious FoF - A	3.96	Domestic - Fixed Interest - Varied Specialist Funds
Element Flexible - A	4.06	Domestic - Namibia - Varied Specialist Funds
Investec High Income Namibia - A	0.48	Domestic - Namibia - Varied Specialist Funds
Investec Managed Namibia - R	9.59	Domestic - Namibia - Varied Specialist Funds
Old Mutual Namibia Dynamic Floor	17.73	Domestic - Namibia - Varied Specialist Funds
Old Mutual Namibia Managed	3.93	Domestic - Namibia - Varied Specialist Funds
Old Mutual Namibia Growth	0.44	Domestic - Namibia - Varied Specialist Funds
Allan Gray Stable - A	0.44	Domestic - Namibia - Varied Specialist Funds
STANLIB Moderate FoF - A	2.05	Domestic - Namibia - Varied Specialist Funds
Glacier Financial Solutions Moderate M-M FoF	3.68	Domestic - Namibia - Varied Specialist Funds
Flagship Domestic Flexible - A	3.89	Domestic - Namibia - Varied Specialist Funds
Investec Opportunity - A	5.43	Domestic - Namibia - Varied Specialist Funds
Catalyst SA Property Equity - A	0.47	Domestic - Real Estate - General Funds
Coronation Property Equity - A	4.18	Domestic - Real Estate - General Funds
Dynamic Wealth Property - A	6.13	Domestic - Real Estate - General Funds
Dynamic Wealth Property - A1	3.92	Domestic - Real Estate - General Funds
Investec Property Equity - A	3.92	Domestic - Real Estate - General Funds
Investment Solutions Property Equity	4.37	Domestic - Real Estate - General Funds
Marriott Property Equity - R	4.37	Domestic - Real Estate - General Funds
Marriott Property Income - A	6.93	Domestic - Real Estate - General Funds
Metropolitan Property Income	6.93	Domestic - Real Estate - General Funds
N-e-FG Property Income	4.02	Domestic - Real Estate - General Funds
Oasis Property Equity	4.02	Domestic - Real Estate - General Funds
Old Mutual SA Quoted Property - A	11.88	Domestic - Real Estate - General Funds
Prudential Enhanced SA Property Tracker-A	16.96	Domestic - Real Estate - General Funds
RMB Property - A	12.34	Domestic - Real Estate - General Funds
SIM Property - A	15.4	Domestic - Real Estate - General Funds
STANLIB M-M Flexible Property - A	7.9	Domestic - Real Estate - General Funds
Ankh Flexible FoF - A	6.05	Domestic - Real Estate - General Funds
STANLIB M-M Low Equity FoF - A	6.05	Domestic - Real Estate - General Funds
AS Forum Cautious FoF	6.25	Domestic - Real Estate - General Funds
Avocado Defensive FoF - A	6.25	Domestic - Real Estate - General Funds
N-e-FG Income Provider FoF	5.1	Domestic - Real Estate - General Funds
Alexander Forbes Balanced FoF	5.1	Domestic - Real Estate - General Funds
SIM Managed Conservative FoF - A1	7.64	Domestic - Real Estate - General Funds
SIM Managed Moderate FoF - A1	7.64	Domestic - Real Estate - General Funds
SIM Managed Moderate Aggressive FoF - A1	11.14	Domestic - Real Estate - General Funds
SIM Managed Aggressive FoF - A1	11.14	Domestic - Real Estate - General Funds
Hermes Flexible - A	12.65	Domestic - Real Estate - General Funds
RCI Flexible Managed - A	9.84	Domestic - Real Estate - General Funds
Investec Cautious Managed - A	10.8	Domestic - Real Estate - General Funds
Momentum Balanced Income FoF - B1	5.53	Domestic - Real Estate - General Funds
Marriott International Growth Feeder - A	14.66	Foreign - Asset Allocation - Flexible Funds
Ankh Foreign Flexible FoF - A	14.67	Foreign - Asset Allocation - Flexible Funds

Midas Foreign Flexible FoF - A	15.65	Foreign - Asset Allocation - Flexible Funds
Old Mutual Intl Growth FoF - A	15.97	Foreign - Asset Allocation - Flexible Funds
RMB International Balanced FoF - A	15.21	Foreign - Asset Allocation - Flexible Funds
RMB Intl Conservative FoF - A	15.43	Foreign - Asset Allocation - Flexible Funds
Sanlam Intl Balanced FoF	16.01	Foreign - Asset Allocation - Flexible Funds
Select Manager Global Growth FoF - A	16.38	Foreign - Asset Allocation - Flexible Funds
Absa Cautious FoF - A	14.75	Foreign - Asset Allocation - Flexible Funds
Allan Gray-Orbis Global FoF - A	29.7	Foreign - Asset Allocation - Flexible Funds
RMB Private Bank Global Flexible FoF - B1	28.55	Foreign - Asset Allocation - Flexible Funds
Umbono Core Managed FoF	17.92	Foreign - Asset Allocation - Flexible Funds
Absa International - A	22.31	Foreign - Equity - General Funds
Absa International - R	15.68	Foreign - Equity - General Funds
Nedgroup Inv Global Equity Feeder - A	11.52	Foreign - Equity - General Funds
Nedgroup Inv Intl Equity Feeder - R	23.68	Foreign - Equity - General Funds
Old Mutual Global Equity - A	14.45	Foreign - Equity - General Funds
Sanlam Global Equity - R	11.6	Foreign - Equity - General Funds
Sanlam Global Equity - A	15.23	Foreign - Equity - General Funds
SIM World Big Blue Chip - A1	16.72	Foreign - Equity - General Funds
Allan Gray-Orbis Global Equity Feeder - A	18.05	Foreign - Equity - General Funds
Old Mutual Futuregrowth Global Index FoF - R	12.39	Foreign - Equity - General Funds
Sentinel Flexible FoF - A	18.15	Foreign - Equity - General Funds
db x-trackers FTSE 100 Index ETF	16.01	Foreign - Equity - General Funds
db x-trackers DJ Eurostoxx 50 Index ETF	19.39	Foreign - Equity - General Funds
Investec Worldwide Equity Feeder - R	16.84	Foreign - Equity - General Funds
Nedgroup Inv Intl Equity Feeder - A	10.15	Foreign - Equity - General Funds
RMB Global	16.61	Foreign - Equity - General Funds
Momentum Global Accumulator FoF - B1	16.04	Foreign - Equity - General Funds
Fortress REIT - A	15.77	Foreign - Equity - Varied Specialist Funds
Marriott International Real Estate Feeder - A	17.29	Foreign - Equity - Varied Specialist Funds
Sanlam Pan Europe	15.38	Foreign - Equity - Varied Specialist Funds
STANLIB Intl Property - A	13.72	Foreign - Equity - Varied Specialist Funds
Sanlam Asia Pacific FoF	15.45	Foreign - Equity - Varied Specialist Funds
Absa Global Bond - A	12.33	Foreign - Fixed Interest - Bond Funds
Coris Capital Intl Bond Feeder - A	15.16	Foreign - Fixed Interest - Bond Funds
Old Mutual Global Bond Feeder - A	18.56	Foreign - Fixed Interest - Bond Funds
RMB International Bond - A	11.88	Foreign - Fixed Interest - Bond Funds
Prudential Global High Yield Bond FoF	13.3	Foreign - Fixed Interest - Bond Funds
STANLIB US Dollar Bond FoF - A	10.98	Foreign - Fixed Interest - Bond Funds
Absa Euro Income	12.88	Foreign - Fixed Interest - Varied Specialist Funds
Absa US Dollar Income	17.32	Foreign - Fixed Interest - Varied Specialist Funds
Glacier Intl Multi-Currency - B1	14.67	Foreign - Fixed Interest - Varied Specialist Funds
Interneuron Capital Freestyle	13.42	Foreign - Fixed Interest - Varied Specialist Funds
Marriott Global Income - A	12.54	Foreign - Fixed Interest - Varied Specialist Funds
Old Mutual UK Money Market Feeder - A	12.63	Foreign - Fixed Interest - Varied Specialist Funds
RMB Intl Income - A	13.71	Foreign - Fixed Interest - Varied Specialist Funds
Visio Actinio	12.06	Foreign - Fixed Interest - Varied Specialist Funds
Metropolitan Intl Specialist Income FoF - A	11.63	Foreign - Fixed Interest - Varied Specialist Funds
Prudential Global Income Plus FoF	6.17	Foreign - Fixed Interest - Varied Specialist Funds
STANLIB Euro Currency FoF - A	13.25	Foreign - Fixed Interest - Varied Specialist Funds
STANLIB US Dollar Cash FoF - A	11.61	Foreign - Fixed Interest - Varied Specialist Funds
Efficient Flexible FoF - A	12.4	Foreign - Fixed Interest - Varied Specialist Funds
Coronation Optimum Growth - A	16.95	Worldwide - Asset Allocation - Flexible Funds
Personal Trust Vuna	19.58	Worldwide - Asset Allocation - Flexible Funds
RMB World Wide Flexible	14.71	Worldwide - Asset Allocation - Flexible Funds
Spyglass Flexible	15.98	Worldwide - Asset Allocation - Flexible Funds
IMC Worldwide Flexible FoF	16.47	Worldwide - Asset Allocation - Flexible Funds
Old Mutual Four Plus Global FoF - A	17.36	Worldwide - Asset Allocation - Flexible Funds
Platinum Flexible Growth FoF	14.86	Worldwide - Asset Allocation - Flexible Funds
Flagship Worldwide Flexible - A	7.44	Worldwide - Asset Allocation - Flexible Funds
Nedgroup Inv Bravata Worldwide Flexible - A	15.4	Worldwide - Asset Allocation - Flexible Funds
Flagship Worldwide Flexible FoF - A	10.31	Worldwide - Asset Allocation - Flexible Funds
Marriott Worldwide Flexible FoF - A	13.58	Worldwide - Asset Allocation - Flexible Funds
STANLIB Multi-National - A	7.54	Worldwide - Equity - General Funds
STANLIB Global Science & Technology - A	14.35	Worldwide - Equity - Technology Funds
SIM Resources	9.4	Worldwide - Equity - Varied Specialist Funds

Appendix 2: Regression Outputs

Table A2.1

Regression model for fund TER's against 3 year excess return of fund classification average divided by fund volatility

TER v. 3 year excess return/Volatility

Regression Statistics	
Multiple R	0.021648124
R Square	0.000468641
Adjusted R Square	-0.00132585
Standard Error	0.628065809
Observations	559

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.103017166	0.10301717	0.26115557	0.609529865
Residual	557	219.7179299	0.39446666		
Total	558	219.820947			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.647213499	0.026848219	61.3528025	5.814E-250	1.594477367	1.69994963	1.59447737	1.6999496
Excess return / Volatility	-0.016714183	0.032706608	-0.5110338	0.60952987	-0.08095755	0.04752918	-0.08095755	0.0475292

Table A2.2

Regression model for fund TER's against 1 year excess return of fund classification average divided by fund volatility

TER v. 1 year excess return/Volatility

Regression Statistics	
Multiple R	0.011382395
R Square	0.000129559
Adjusted R Square	-0.001665541
Standard Error	0.628172333
Observations	559

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.028479763	0.02847976	0.07217367	0.788297296
Residual	557	219.7924673	0.39460048		
Total	558	219.820947			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.646705407	0.027135344	60.6848925	1.171E-247	1.593405296	1.70000552	1.5934053	1.7000055
1 year Excess return / Volatility	0.004995819	0.018595905	0.26865157	0.7882973	-0.03153085	0.04152249	-0.03153085	0.0415225

Table A2.3

Regression model for fund TER's against 6 month excess return of fund classification average divided by fund volatility

TER v. 6 month excess return/Volatility

Regression Statistics	
Multiple R	0.01512078
R Square	0.000228638
Adjusted R Square	-0.001566284
Standard Error	0.628141209
Observations	559

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.050259419	0.05025942	0.12738048	0.721298825
Residual	557	219.7706876	0.39456138		
Total	558	219.820947			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	1.647184712	0.02712981	60.7149372	9.212E-248	1.593895471	1.70047395	1.59389547	1.700474
6 month Excess return / Volatility	0.002835413	0.007944468	0.35690403	0.72129882	-0.01276937	0.01844019	-0.01276937	0.0184402