

Investment Management Association



Fund Management Charges, Investment Costs and Performance

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Summary

The aim of this paper is to investigate the overall impact of fund management charges and investment costs on investment outcomes. To achieve this, we carry out two sets of calculations.

First, we look at fund management charges and costs as publicly disclosed in fund literature. The Simplified Prospectus shows the Annual Management Charge (AMC) as well as registration, audit and depositary fees, which are all included in the Total Expense Ratio (TER). These costs are also shown in fund accounts, together with explicit investment costs such as transaction commissions and tax. The total of these costs, as quantified in the fund literature, gives an estimate of the 'expected shortfall' that publicly disclosed costs will create in investors' expected returns compared to the benchmark return.

Secondly, we look at the 'realised annual shortfall', defined as the difference between realised net fund performance and the cost-free return on the relevant market benchmark. By definition, this will take account of the impact of all costs, even where they cannot be directly quantified in the annual reports and accounts.

These two calculations are then compared allowing us to see the extent to which the costs of investment inferred from fund returns compare with the costs laid out in fund literature.

Our analysis of fund accounts across the largest tracker funds shows an annualised expected shortfall of 0.84% in the case of FTSE 100 trackers and 0.69% in the case of FTSE All-Share trackers (see Table 1). These are the shortfall amounts that an investor would expect, net of publicly disclosed costs, to reduce benchmark returns. On the other hand, the realised annual shortfall was 0.89% per year for FTSE 100 trackers whilst the corresponding figure for the average fund tracking the FTSE All-Share was 0.79%.

These realised annual shortfalls are marginally higher than the figures of expected shortfall based on information from fund accounts. This is at least in part due to a recent decrease in the average charges for tracker funds – a fact fully reflected in the fund accounts but only partially in the performance figures over the past ten years. When this is taken into account, the closeness of the two sets of figures suggests no significant negative impact from the costs (sometimes called hidden costs) that are not displayed in fund literature.

The returns on active funds depend on the quality of their managers' stock selections. Given that transaction costs are an integral part of the implementation of these selections, they cannot be looked at in isolation. The realised shortfall in active fund returns compared to the benchmark is substantially less than the expected shortfall based on information in fund literature, reflecting the fact that, overall, the trading costs resulting from fund managers' active investment decisions are more than compensated by the extra returns generated compared with general market returns.

Table 1: Annualised returns for funds compared with benchmark indices*

Compound annual rates	Average annual fund return	Benchmark return	Realised annual shortfall in fund returns	Expected shortfall based on total charges and explicit investment costs
FTSE 100 trackers	3.27%	4.20%	0.89%	0.84%**
FTSE All-Share trackers	3.87%	4.70%	0.79%	0.69%***
Active funds	4.04%	4.70%****	0.63%	1.95%

Sources: IMA, Lipper For Investment Management, Financial Express

* All figures include income re-invested

**Includes reduction of 0.11% over last two and a half years from reduced AMCs

*** Includes reduction of 0.03% over last two and a half years from reduced AMCs

****Benchmark taken as FTSE All-Share index as this is the most commonly used benchmark used by funds in the UK All Companies sector

The figures in Table 1 are based on a period of ten years ending December 2011 (except for the final column which is based on the most recent fund accounts data). As it happens, this was the worst rolling ten year performance relative to the benchmark for the average UK All Companies fund for a long time (see Table 8 in Part Three). Indeed, for some earlier periods, fund managers outperformed the index even after all costs were taken into account. However, there was considerable variation in the performance of individual funds with some doing much better than the average and some worse.

Looking at the three biggest equity sectors after UK All Companies (Global, Europe Excluding UK and North America) – the picture is very similar, with fund managers again under-performing the benchmark by less than the total of the costs shown in funds literature.

Introduction

This paper uses data from the IMA, Lipper for Investment Management and fund accounts to examine the relationship between fund management costs and fund performance.

The return earned by an investor in an investment product is broadly determined by two factors: the return on the underlying assets and the costs of investing in these assets. All else being equal, the higher the cost of investing, the lower the return.

There are four types of cost that impact fund performance:

- the annual management charge (AMC);
- other costs charged to the fund, for example registration, audit and depositary fees, which together with the AMC, make up the Total Expense Ratio (TER);
- directly quantifiable costs of investing in the underlying portfolio, such as dealing costs and, in the case of UK equity investments, stamp duty. We call these 'explicit investment costs';
- non-directly quantifiable costs inherent in all investing activity. These include the bid-offer spread and, potentially, market impact. We call them 'implicit investment costs'.

The net performance of funds is calculated taking into account all of these costs, but before any initial and exit charges which may be levied, or any performance fees. However, initial charges are often rebated whilst exit charges and performance fees are rare.

The first two of these categories of cost (the AMC/TER) are different in character from the second two (explicit/implicit costs). The first two are charges to investors for professional services provided in offering a fund product. The second two are costs that are incurred by all investors, whether individuals or institutions acting on behalf of individuals, to access the market. The scale of these investment costs depends upon the nature of the markets being accessed, the relevant tax regimes, and the nature and implementation of fund managers' investment policies. In this respect, they are much more variable and less predictable than the AMC/TER.

As shown above, these investment costs subdivide into explicit investment costs, which are directly quantifiable and recorded in fund accounts, and implicit investment costs, which are not directly quantifiable. The latter are sometimes referred to as 'hidden charges'.

The analysis in this paper is based on the elaboration of two concepts:

- first, investment fund accounts are analysed to develop the concept of the 'expected shortfall'. This is the difference between the benchmark return and the expected net return to investors calculated by looking at fund management charges and investment costs as publicly disclosed in funds literature. By definition, this does not include implicit investment costs such as the bid-offer spread or market impact;
- the next part of the analysis looks at the 'realised annual shortfall', defined as the difference between the realised net fund performance and the cost-free return on the relevant market benchmark. For passive funds, the size of the shortfall will be determined by the direct and indirect costs of investing, and any impact (positive or negative) of the tracking technique itself. For active funds, it will be the direct and indirect costs together with the impact of managers' stocks and securities selections. By definition, the impact of all costs, whether shown in the annual reports and accounts or not, will be taken into account.

Comparison of the expected shortfall and the realised annual shortfall achieves two things. First, it enables us to ascertain whether hidden charges, particularly implicit investment costs, are having a significant impact on fund performance. This can be examined for both index and active funds. With respect to active funds, it also allows us to see whether, on average, active stocks and securities selection is making any difference to fund returns, particularly in comparison with the data for passive funds.

The analysis focuses on tracker and active funds in the UK All Companies sector. After considering the relationships between charges, costs and outcomes in this sector in the last available calendar year, the analysis is extended to earlier periods and, also, to other equity fund sectors.

PART ONE:

Direct measurement of fund charges and explicit investment costs using fund literature

In the introduction, we identified four categories of cost. The first two of these are combined in the TER which is published for each fund as part of the Simplified Prospectus. The new Key Investor Information Document being introduced uses the term 'on-going charges' in place of the TER.

Information about the third category, explicit investment costs, may be found in funds' annual reports and accounts. In particular, these accounts reveal transaction costs - commission and stamp duty - and Schedule 19 SDRT¹. Where appropriate, they also show any off-setting income from stock-lending and underwriting.

The first three categories of cost are all directly quantifiable and their total is the expected shortfall in investor returns compared to the benchmark.

The fourth category, implicit investment costs, relates to funds as participants in the market, like other investors, buying securities at the offer price and selling at the bid price. The bid-offer spread covers the cost of intermediation between buyers and sellers of securities. Market impact is basically a wider spread correspondent with the larger exposure the market-maker takes on in a big deal, which is why it is difficult to isolate as an investment cost. Large orders reduce liquidity and liquidity is priced using the spread.

In 2009, the IMA looked at cost figures available in the then most recently available annual reports and accounts for some of the largest funds in the IMA UK All Companies sector. We have now updated this analysis and extended it to other sectors.

These accounts give information about fund charges levied by fund managers - the AMC, other costs charged to the fund and paid out to service providers (such as registration, audit and depositary fees), the commission incurred in securities dealing and, where applicable, stamp duty on share transactions. For index funds, these costs together with the impact of implicit investment costs amount to the expected shortfall against the benchmark.

As already noted, there is a difference between the characteristics of the AMC, registration, audit and depositary fees on the one hand and trading commissions and stamp duty charges on the other. The former are annual costs that are paid by the investors for services provided - investment management and administration of their monies - and are known in advance. The latter are costs that the fund manager incurs in carrying out the service that investors have bought. These are called 'explicit investment costs' in this note and differ from the former in several ways:

- they are not known in advance. They are dependent on the level of trading that investment managers see as appropriate in light of their investment objectives and the need to meet these in changing markets;
- they may not be borne equally by all unit holders in a fund. For example, some trading may be induced by investors buying and selling units, with the resulting trading costs passed on to these buyers and sellers by dilution adjustments that protect the return of other investors continuing in the fund.

¹ Schedule 19 SDRT is stamp duty payable on funds.

Table 2 shows the explicit investment costs stated in the fund accounts of the 15 largest FTSE 100/FTSE All-Share tracker funds and the 15 largest active funds in the UK All Companies sector. They account respectively for 86% and 51% of the total value of funds invested. The table shows net explicit investment costs amounting to 0.09% per year of the value of the funds in the case of FTSE 100 trackers and 0.07% for FTSE All-Share trackers. For active funds, the comparable figure is 0.38%. These costs are primarily tax, which accounts for 83% in the case of FTSE 100 tracker funds, 90% for FTSE All-Share trackers and 78% for active funds.

Table 2: Explicit investment costs shown in UK All Companies sector fund accounts

Annual costs as % average assets by value*	FTSE 100 trackers	FTSE All-Share trackers	Active funds
Transactions commissions	0.01%	0.00%	0.11%
Transaction taxes	0.05%	0.02%	0.22%
Finance costs	0.00%	0.00%	0.01%
Schedule 19 SDRT	0.03%	0.05%	0.06%
Total investment costs	0.09%	0.08%	0.39%
Net stock lending income	0.00%	0.01%	0.00%
Underwriting income	0.00%	0.00%	0.01%
Total income	0.00%	0.01%	0.01%
Net investment costs	0.09%	0.07%	0.38%

*Simple averages of funds. Figures may not add due to rounding.

As already mentioned, explicit investment costs reduce investor returns compared to the benchmark. The same holds true for the AMC, registration, audit and depositary fees that, together, make up the TER. Adding all these costs gives an estimate of the amount by which an average investor in tracker funds might expect their return to fall short of the benchmark tracked, based on information available in fund literature. For FTSE 100 trackers, the average TER added to the average explicit investment cost implies an expected shortfall of 0.84% (0.75% TER and net investment costs of 0.09%). For FTSE All-Share trackers, the expected shortfall is 0.69% (0.62% TER and net investment costs of 0.07%).

These figures are based on simple averages across funds. This is easier for comparison, later in this paper, with Lipper for Investment Management performance indices constructed on the same basis. However, it ignores the fact that retail investors have more money invested in larger funds than the smaller ones. Taking this into account and using weighted averages based on the size of the different funds, the expected shortfall that the average investor might expect changes to 0.77% in the case of FTSE 100 trackers and 0.73% in the case of FTSE All-Share trackers.

So far, this paper has discussed the extent to which retail investors might expect the performance of tracker funds to lag their benchmarks, based on information from fund accounts. However, the situation is different for active funds because their returns are mainly determined by their managers' stock selections. An active fund's performance compared to its benchmark will depend on the quality of the manager's investment decisions, the transaction costs associated with those decisions and fund charges. The figures in Table 2 show that active management incurs more explicit investment costs than passive (still predominantly tax). Added together with the AMC, registration, audit and depositary fees, these costs would indicate average fund management charges and explicit investment costs of 1.95% (made up of a TER of 1.58% and net investment costs of 0.38%).

Table 3 extends the analysis to the next three biggest IMA equity sectors, albeit without separate figures for tracker and active funds. There are fewer trackers in these sectors than in the UK All Companies sector. These figures are based on the 15 biggest funds in each sector and account for 55% of the total value of retail funds in the Global sector, 75% in the Europe ex UK sector and 74% in the North America sector.

Table 3: Explicit investment cost shown in fund accounts for three IMA equity sectors

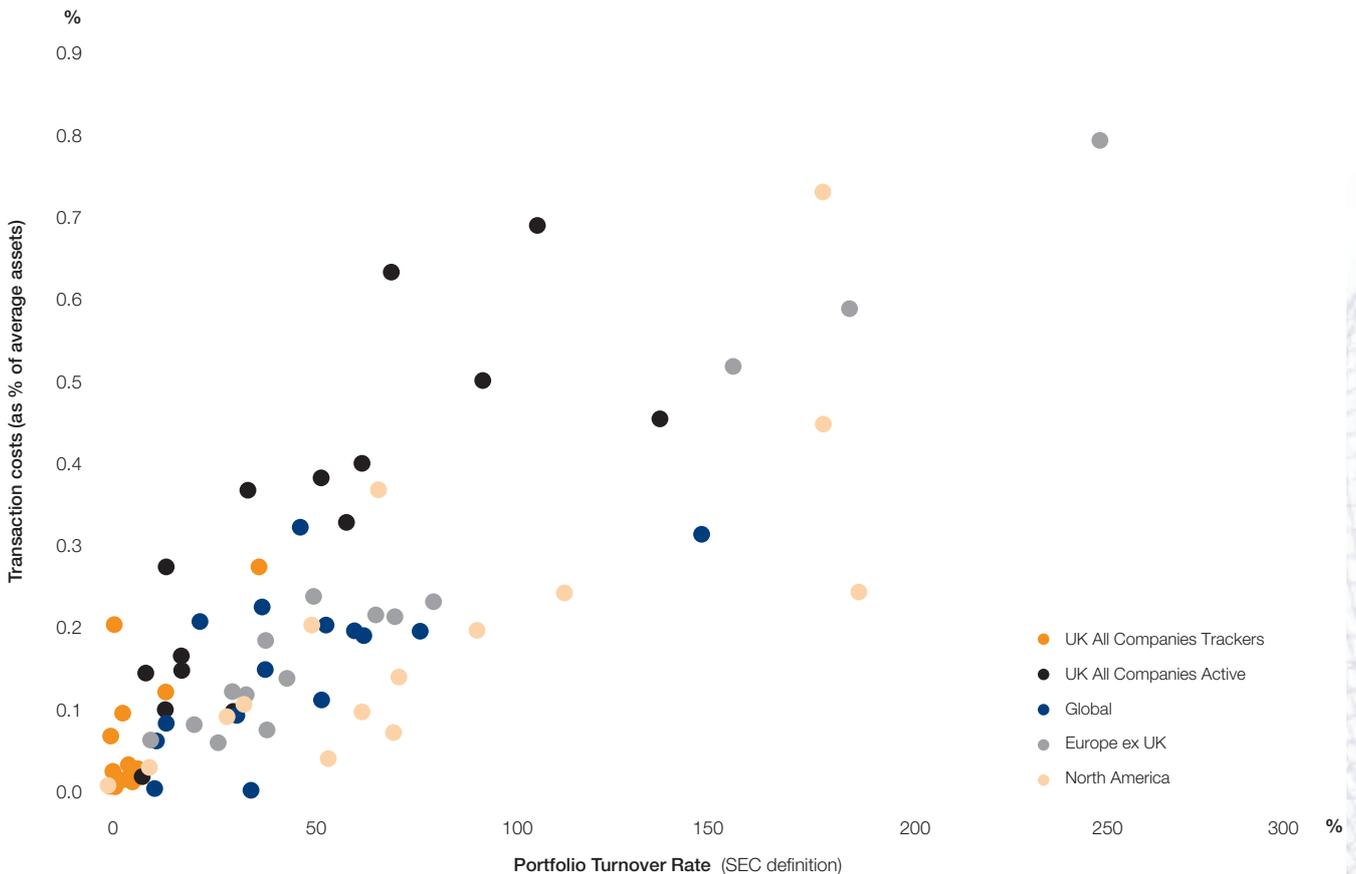
Costs as % average assets by value*	Global	Europe Excluding UK	North America
Transactions commissions	0.12%	0.23%	0.20%
Transaction taxes	0.04%	0.01%	0.00%
Finance costs	0.01%	0.00%	0.00%
Schedule 19 SDRT	0.02%	0.00%	0.00%
Total investment costs	0.18%	0.25%	0.20%
Net stock lending income	0.00%	0.03%	0.00%
Underwriting income	0.00%	0.00%	0.00%
Total income	0.00%	0.03%	0.00%
Net investment costs	0.18%	0.21%	0.20%

*Simple averages of funds. Figures may not add due to rounding.

The figures show net explicit investment costs ranging from 0.18% to 0.21%, much lower than the average for active funds in the UK All Companies sector, where the majority of costs emanate from UK stamp duty. The corresponding simple average TERs (made up of the AMC, registration, audit and depositary fees) are 1.69% for the Global, 1.66% for the Europe ex UK and 1.56% for the North America sector. Adding all these costs together and ignoring the impact of managers' stock selection gives expected shortfalls averaging 1.86%, 1.87% and 1.76%, respectively.

As can be seen, most costs are covered in the TER. While transaction costs on average contribute only a small part, these are more variable between funds than the TERs reflecting different investment policies. Policies that result in higher stock turnover will normally generate higher transaction costs. This can be seen in Chart 1 which plots transaction costs against fund turnover. These costs are inevitable for an active manager aiming to outperform a benchmark since trading cannot take place without incurring trading costs.

Chart 1: Transaction costs vs Portfolio Turnover Rate



These figures relate to the three categories of quantifiable costs that we set out. Inevitably, they do not take account of implicit investment costs. Thus the figures in Tables 2 and 3 do not take account of the bid-offer spreads and market impact, both of which are inseparable from the investment return that a fund manager generates.

PART TWO:

Indirect measurement of fund charges and investment costs through observed fund returns

UK index tracker funds

The second part of this paper looks at total charges and investment costs implied by actual shortfalls in fund performance compared with benchmarks over the past ten years.

Within the UK All Companies sector, there are currently 38 index-tracking funds, most of which aim to track either the FTSE 100 index or the FTSE All-Share index. We looked at the net performance of 26 such funds that have been in existence for at least ten years. We compared the net performance of these funds with that of the two indices over a period of ten years up to December 2011 to calculate the realised annual shortfall. The results are shown in Table 4, with equal weight given to each fund irrespective of size.

Table 4: UK tracker fund returns over 10 years* compared with indices

	Performance	Benchmark Total Return	Cumulative performance shortfall	Realised annual shortfall	Expected shortfall from fund accounts
FTSE 100 trackers	38.0%	50.9%	8.6%	0.89%	0.84%**
FTSE All-Share trackers	46.2%	58.3%	7.7%	0.79%	0.69%***

Sources: IMA, Lipper For Investment Management, Financial Express

* All figures include income re-invested

**Includes reduction of 0.11% over last two and a half years from reduced AMCs

*** Includes reduction of 0.03% over last two and a half years from reduced AMCs

The figures were calculated for each day in December 2011 and then averaged. The averaging sought to minimise errors in calculation of the shortfall. Errors arise as a result of limitations in data availability, where fund prices based on midday valuations are compared to FTSE values as at the end of the day¹.

The figures in Table 4 show that, over the past ten years, the realised annual shortfall was 0.89% for FTSE 100 trackers and 0.79% for FTSE All-Share trackers. These indirect estimates of the cost of investing in trackers are broadly in line with the expected shortfall figures of 0.84% and 0.69%, respectively, obtained from the analysis of fund accounts. The figures of observed realised annual shortfall and expected shortfall from fund accounts are close but we would not expect them to be exactly the same. This is primarily because the direct estimates are based on data from fund accounts available for 15 funds for a period of one year in January 2012, whilst the indirect estimates are based on the performance of 26 funds over ten years. Another reason, however, is a recent decrease in fund management charges for tracker funds. Over the past two and a half years, the average TER of FTSE 100 trackers included in our analysis has dropped 11 basis points, whilst that of FTSE All-Share trackers has dropped 3 basis points.

However, the closeness of the figures strongly suggests that there are no significant costs hidden from investors. The net returns from tracker investments closely correspond with the figures that are available from fund literature. The effects of hidden costs on investment returns, in terms of the impact of bid-offer spreads and market impact, are insignificant.

¹ For one fund, we calculated a rolling 12-month shortfall against its benchmark for each day over five years, using midday fund prices and end-of-the-day FTSE values. Whilst the average tracking error was 0.56%, the standard deviation of the calculated shortfall was 1.30%.

Active funds

While actively managed funds can be compared with a benchmark index in the same way as tracker funds, account also needs to be taken of managers' stock selections. It is, therefore, less meaningful to focus on the impact of trading costs on returns, because these are an integral part of a fund manager's stock selection. For this reason, we have focused on the net impact of stock selection and trading costs on fund returns. The following table compares the average performance of the UK All Companies sector and the active and passive funds within it.

Table 5: Active funds 10 year net performance statistics to December 2011*

Compound annual rates	Average annual fund return	Benchmark return	Realised annual shortfall	Expected shortfall from fund accounts
FTSE 100 trackers	3.27%	4.20%	0.89%	0.84%**
FTSE All-Share trackers	3.87%	4.70%	0.79%	0.69%***
Active funds	4.04%	4.70%****	0.63%	1.95%

Source: IMA, Lipper For Investment Management

* All figures include income re-invested

**Includes reduction of 0.11% over last two and a half years from reduced AMCs

*** Includes reduction of 0.03% over last two and a half years from reduced AMCs

****Benchmark taken as FTSE All-Share index as this is the most commonly used benchmark used by funds in the UK All Companies sector

Active funds have delivered an annualised return of 4.04% compared with a 4.70% growth of the FTSE All-Share index. This is the index that a large majority of active funds within the UK All Companies sector use as their benchmark².

Thus the average active fund trailed the index by a compound 0.63% per year. This is well below the average TER for active funds and it is also below the realised annual shortfall for tracker funds. This indicates that managers' stock selections over the ten year period delivered investment returns that on average more than recouped the extra fund management and investment costs (whether explicit or implicit) that go hand in hand with active management.

Individual investors' experience in active funds will be greatly dependent on the success of their fund managers' stock selections – some will do better than the average shown here, some worse. But it is the average that is relevant here since we are looking at the extent to which, across the industry as a whole, active managers recoup, indeed more than recoup, the costs of active management, both identifiable and non-identifiable costs.

The figures for active funds include a reduction to allow for survivorship bias. Looking at active funds in existence today with a ten year track record, they delivered an annualised return of 4.79% over the ten years to December 2011. This has been reduced to an estimate of 4.04% to take account of the fact that surviving funds have out-performed funds that were closed or merged over the period. The size of this reduction was based on a comparison of the average return of all surviving funds in the UK All Companies sector (both tracker and active funds) with the Lipper index for the sector. The difference provides an estimate of the survivorship bias for the sector as a whole over the relevant period. As survivorship bias is not a significant factor for tracker funds³, this estimate was then wholly attributed to active funds.

² Based on an analysis of Morningstar data

³ Survivorship bias occurs where the funds that close or merge have significantly underperformed compared to the average of all funds. In the case of tracker funds the extent of any under-performance is very small.

Initial charges, exit charges and performance fees

Initial charges can be a significant cost for investors. Many active funds have initial charges, often 5%, which are not reflected in the performance statistics. These have not been included in our analysis because they are often heavily discounted. For example, one substantial intermediary rebates almost all initial charges – the average initial charge across the UK All Companies funds it offers is 0.13%. Moreover, the significance of initial charges may be further reduced following the implementation of the Retail Distribution Review (RDR).

The following table shows the proportion of active funds that, over a period of ten years, outperformed their respective indices and outperformed by 5% over ten years.

Table 6: Proportion of surviving active funds outperforming over ten years*

FTSE 100	50%
FTSE 100 + 5%	36%
FTSE All-Share	38%
FTSE All-Share + 5%	30%

Source: IMA, Lipper For Investment Management

* All figures include income re-invested

Thus, over the past ten years, one-half of surviving active funds in the UK All Companies sector outperformed the FTSE 100 total return, and 38% outperformed the FTSE All-Share. Around a third would have outperformed their indices, even if an initial 5% charge had been applied.

A few funds impose exit charges which may be limited to early redemptions of investors' purchases.

None of the funds analysed above charged performance fees though eight funds did so across the UK All Companies sector as a whole. Across all sectors, 81 on-shore funds (accounting for 3.1% of the total in terms of AUM) have reported the use of performance fees to the IMA.

Dispersion of returns

Whilst, on average, the performance of active funds is close to the benchmark, there is wide variation in the performance of individual funds in the sector. Over the past ten years the best-performing UK All Companies fund almost trebled in value while the worst performer lost over 30%. Table 7 shows the dispersion of performance amongst active funds over the past ten years.

Table 7: Dispersion of active fund performance over ten years to December 2011*

	Total return	Annual return relative to benchmark**
Top decile	110.3%	2.81%
Top quartile	73.3%	0.83%
Bottom quartile	39.8%	-1.31%
Bottom decile	23.9%	-2.49%

* Figures represent performance at the relevant decile and quartile

** Benchmark taken as FTSE All-Share index as this is the most commonly used benchmark used by funds in the UK All Companies sector

The figures show that, in terms of annual growth in returns, funds in the top decile outperformed their benchmark by at least 2.81% whilst the worst-performing ten per cent lagged behind the index by at least 2.49% per year.

PART THREE:

A broader view

The figures in the first two parts of this paper relate to the UK All Companies sector over the past ten years, raising the question of how typical this period was. In this section of the paper, therefore, we look at rolling ten year periods and we extend the analysis to other sectors.

First we look at rolling ten year periods in relation to the UK All Companies sector. For this purpose, and to simplify the calculations, we analyse the sector as a whole including both tracker and active funds.

Table 8 below shows returns for the UK All Companies sector as a whole for rolling ten year periods ending between December 2000 and December 2011 including, as mentioned, both tracker and active funds. In terms of realised annual shortfalls over these periods, the figures show that the ten year period to December 2011 was the worst.

Table 8: Realised annual shortfalls compared with benchmark* for UK All Companies Sector

Rolling 10 year period ending	Sector performance	Benchmark	Performance shortfall compared to benchmark	Realised annual shortfall
December 00	310.8%	314.8%	0.97%	0.10%
December 01	207.3%	207.0%	-0.11%	-0.01%
December 02	104.0%	98.8%	-2.60%	-0.26%
December 03	86.5%	83.8%	-1.49%	-0.15%
December 04	118.3%	116.4%	-0.89%	-0.09%
December 05	115.7%	113.7%	-0.95%	-0.09%
December 06	119.4%	116.1%	-1.49%	-0.15%
December 07	83.8%	84.0%	0.13%	0.01%
December 08	9.0%	11.0%	1.82%	0.18%
December 09	14.4%	18.7%	3.65%	0.37%
December 10	34.6%	42.7%	5.65%	0.58%
December 11	47.0%	58.3%	7.16%	0.74%

*FTSE All-Share index

Over all these ten year rolling periods, shortfalls were less than the average TER of funds in this sector at 1.57%. (This figure covers both tracker funds and active funds.) It should be noted, of course, that these rolling periods are not independent measures of performance. Indeed, the figures for adjacent ten year rolling periods are highly correlated, with each of them having nine out of ten years in common.

It is nevertheless striking that fund performances – before all fund management charges and investment costs – were on average ahead of the main benchmark index, the FTSE All-Share, whatever the ten year period examined. This outperformance will have derived from the active funds within the sector.

Table 9 extends this analysis to three other equity sectors – Global, Europe excluding UK and North America. For these sectors, average performance shortfalls have been calculated relative to the most commonly used benchmarks – MSCI World, FTSE Europe Excluding UK and S&P 500 respectively. The table shows that, for all these sectors, the realised annual shortfalls over most ten year periods were less than the average TERs which, for funds in these sectors, today stand at 1.62%, 1.68% and 1.59%⁴, respectively. These figures, incidentally, cover both tracker and active funds though the latter account for well over nine-tenths of the funds across all three sectors.

Table 9: Realised annual shortfalls compared with benchmarks for four IMA Equity Sectors

Rolling 10 year period ending	UK All Companies	Global	Europe Excluding UK	North America
December 00	0.10%	1.45%	0.32%	-0.10%
December 01	-0.01%	1.39%	0.08%	0.45%
December 02	-0.26%	1.15%	-0.41%	0.86%
December 03	-0.15%	2.28%	0.37%	1.50%
December 04	-0.09%	1.47%	-0.10%	1.49%
December 05	-0.09%	0.98%	-0.46%	1.17%
December 06	-0.15%	0.53%	0.02%	1.34%
December 07	0.01%	0.23%	0.06%	0.88%
December 08	0.18%	0.19%	-0.01%	1.03%
December 09	0.37%	-0.08%	0.60%	1.17%
December 10	0.58%	0.11%	0.60%	1.38%
December 11	0.74%	0.27%	0.45%	1.48%
Average*	0.10%	0.83%	0.13%	1.05%

*Average of twelve overlapping ten year periods

⁴ These figures are based on all retail funds in these sectors and therefore differ slightly from the similar figures on page 6 which are based on fund accounts for the 15 largest such funds.