PIRC

LOCAL AUTHORITY PENSION PERFORMANCE ANALYTICS

ANNUAL REPORT

2018/19

- 2018/19 Local Authority Universe results
- Long term results and trends
- Comments and analysis

INTRODUCTION

Welcome to the 2018/19 PIRC Local Authority Pension Performance Analytics Annual Review. Who would have anticipated funds would return more than 10% p.a. over these last three years between revaluations? The continued excellent performance from the investments, despite economic and political volatility, should make balancing the actuarial books a little easier than funds may have been expecting.

We are delighted to be able to publish this year's peer group results, based on a Universe of 64 funds with a value of £193bn. This represents some two thirds of local authority pension fund assets and includes all of the Welsh and Northern Pools, all bar one of the London Pool, with funds from all other pools except Central. We look forward to this number continuing to grow as more funds come on board.

This year we welcome the Isle of Wight, Cumbria and Hackney schemes into the Universe.

This has been a year of substantial activity across the funds as the move into pooling began to materialise in earnest. We saw a continuation of the move between passive managers that had begun the year previously followed by a movement of funds across most pools into the active global equity offerings.

These changes have tended to be at portfolio level with fund strategic allocation remaining broadly unchanged. This is not surprising given the impending triennial revaluation in England and Wales.

If you need to know anything more please just ask.

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2018-19 UNIVERSE RESULTS

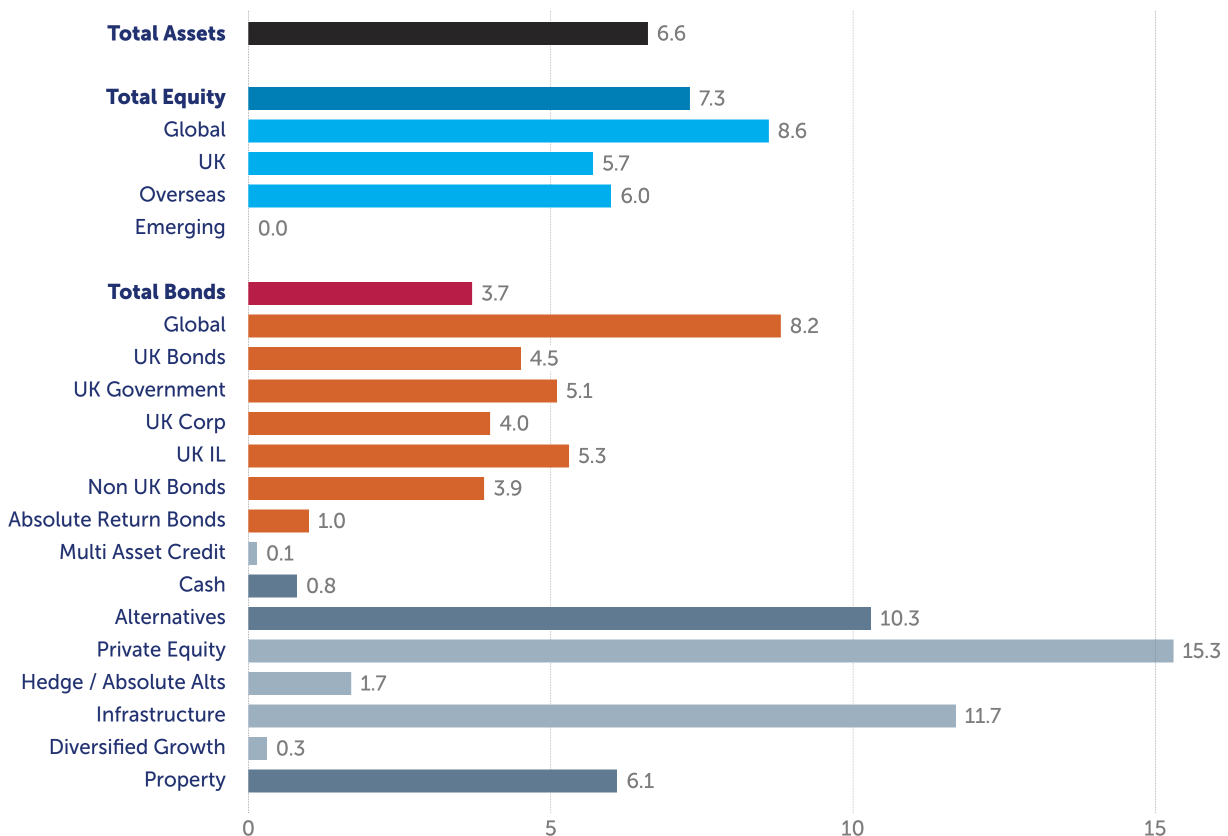
- A year of global political uncertainty, a burgeoning trade war between the US and China and no resolution to the Brexit issue. Despite this, investment returns, though volatile, were positive and the average Local Authority fund produced a return of almost 7% for the year.

- This was slightly below the long term average of around 8% p.a. but this return was ahead of inflation and actuarial assumptions.

- Asset class returns were tightly grouped with bonds, property and equities returning 4%, 6%, and 7% respectively for the year.

- Private equity was the best performing asset class at 15% followed by infrastructure at 12%. Absolute return investments all performed relatively poorly averaging only 1% for the year.

Figure 1: 2018/19 performance



There were many headwinds facing investors over the last year. Unease over historically high levels of markets, political uncertainty, the escalating trade war between the US and China and the ongoing unresolved issues around how, or even if, the UK would leave Europe all impacted sentiment and made for a volatile year. Despite this, over the last twelve months the average Local Authority pension fund has returned a very respectable 6.6%. While this return is below the 30 year average of 8.4% p.a. it is well ahead of inflation and of actuarial assumptions which are currently around 4% p.a.

Figure 1 shows asset class returns were tightly grouped. Bonds, property and equities returned 4%, 6%, and 7% respectively for the year.

As in the previous year when assets were also tightly grouped, strategic asset allocation had less of an impact than usual and so the range of individual fund returns was narrow with most funds returning between 5% and 8% for the year.

Unusually, there were bigger differences within asset classes than between them. With equities emerging markets returned an average of 0% whilst global equity portfolios delivered close to 9%. Likewise within alternative investments funds achieved an average return of 10% but there was a wide range of returns delivered. Funds that held high levels of private equity and infrastructure would have seen double digit returns from these assets whilst those invested in absolute return investments were likely to have experienced returns of less than 2% for the year.

Within bonds, traditional index based investment strategies produced returns well ahead of those delivered by absolute return or multi asset strategies.

These figures reinforce the importance of clearly understood and implemented decision making at all levels within the asset hierarchy.

Performance relative to fund specific benchmarks

After strongly outperforming their own benchmarks in 2017/18 many funds saw a sharp reversal of fortune and in the latest year two thirds of funds failed to match their benchmark return. Of the third that outperformed the relative results were modest and only a handful added more than 1%. The key reasons for the relatively poor performance were disappointing returns from many active equity managers and below target returns from many absolute return investments.

Only a third of funds managed to outperform their strategic benchmark last year.

What did well in the latest year?

Private equity continued to perform strongly with a return of 15% for the year. It has outperformed quoted equity in the medium term but the outperformance is not yet visible over the longer term.

Infrastructure too performed extremely well.

US equities (the key component of global equity funds) continued their extended run of excellent performance, assisted by the ongoing strengthening of the US Dollar.

Ethical / Green / Environmental investment did well in garnering funds. These strategies saw a large influx of money across a range of funds. This was focussed principally in global equity portfolios where we saw a net inflow of £3 billion. There was also an inflow to green investment within new infrastructure allocations across a number of funds.

What fared less well?

Emerging market equities after being the best performing equity area in the previous year, fared particularly badly this year, failing to deliver a positive return.

With an average return of 1% **absolute return** funds performed relatively poorly across a variety of strategies and asset types.

Equity protection, taken out by some funds as insurance against possible market falls was not required and the cost had a drag on performance for the year.

Continued low interest rates meant holding any level of **cash** continued to have a negative impact on return.

Figure 2: Asset allocation - latest year

% allocation	31/3/2018	31/3/2019	Change
Equities	55	55	-
UK	15	14	-1
Overseas	40	41	1
Bonds	18	19	1
UK	8	8	-
Global	4	4	-
Overseas	1	0	-1
Absolute return	5	5	-
Multi-Asset Credit		1	1
Cash	3	3	-
Alternatives	11	11	-
Private equity	5	5	-
Infrastructure	3	3	-
Absolute Return	3	3	-
Diversified growth	4	3	-1
Property	9	9	-

What has changed over the year?

After the dramatic reduction in equity exposure as funds moved to lower risk strategies through 2017/18 the strategic asset allocation changes in the latest year were modest as can be seen in Figure 2. However beneath that a number of changes emerged and trends, that had started in previous years continued:

Move into **'green' investments** across a range of funds and through both active and passively managed investments.

Continued move into **enhanced index/smart beta** investments including low volatility.

Multi-asset credit gained ground.

A continued move away from index based bench-marks towards **absolute return benchmarks** within alternative assets and within bond allocations.

An increase in the level of **passive equity investment**

Continuation of the **switches across index tracking managers** as funds take advantage of reduced fees negotiated at pool level.

2018/19 IN DETAIL

Asset allocation

The equity allocation remained unchanged but within this the move away from UK equities continued. The majority of funds now have no specific UK equity allocation, investing instead through global equity investments. It has been interesting to note that a number of pools are currently not offering a UK equity vehicle and so, by default, this move looks certain to continue.

Structures remained broadly unchanged as funds wait for the results of the 2019 actuarial revaluations.

The new money within the bond/income allocation is generally being invested into absolute return type investments – whether they be bond based, multi-asset credit, private debt or property income funds. The bulk of the investment in index based strategies (the UK Bond, global and overseas allocation in Figure 2 above) is invested passively.

Within alternatives there has been a continued flow of funds into infrastructure and we expect this to grow as allocations are drawn down and the Pool infrastructure offerings become funded.

Diversified growth allocation reduced. One of the bigger players in this market Aberdeen Standard, saw a number of funds disinvest on the back of poor performance whilst other funds, perhaps prompted by the disappointing returns of the asset class as a whole, have switched to alternative products, such as multi-asset credit.

Cash exposure increased slightly over the year. Some of this may be the result of worries about the level of the equity markets but it is also the result of a number of funds being in the process of transition.

Risk reduction

In 2017/18 we saw funds de-risk to some degree. The key manifestation was the move from equities to less 'risky' assets such as diversified growth / absolute return portfolios which target lower than equity returns but at substantially lower than equity volatility. This trend didn't continue through the latest year. It would seem that funds that had not already implemented such strategies are waiting until there is clarity about ingoing funding levels and costs from the latest actuarial revaluations which should be complete towards the end of this year.

We continued to see limited use of equity protection strategies. These are effectively derivative trades where a fund insures itself against a large fall in the equity market. Because equity markets did not fall in the way many had anticipated, and indeed rose strongly, this insurance was not called upon. The cost of the strategy became a drag on performance for those funds that had employed it in the latest year.

Income generation

As more funds continue to move close to or into a cash flow negative situation (where the payments of pensions out of the fund is greater than the contribution inflow) there has been increased focus on income generating assets. Whilst equities generate income this income is usually immediately reinvested so funds are looking more closely at

More funds continue to move close to or into a cash flow negative situation.

alternative sources. We continue to see increased investment into higher yielding, income generating assets such as property, infrastructure and multi-asset credit funds as well as private debt all of which would help to deliver the income required.

Asset performance

Equities

Equities had a torrid time as global markets plunged in the December quarter amidst concern over a global trade war before rebounding in the first calendar quarter of 2019 to deliver positive returns for the year across most regions.

The approach to equity investment varies widely across funds. Most active equity investment is now undertaken through global pooled vehicles benchmarked against global indices that incorporate both developed and emerging markets. Some funds choose to invest in global developed market funds, allowing them to choose a separate manager and a defined allocation to emerging markets.

There has been a significant move into green equity investment strategies.

A declining number of funds maintain a bespoke UK equity allocation managed by a specialist UK equity manager. The increased globalisation of the UK stock market and the relatively poor performance of that market and the active fund managers operating within that space have all been contributory factors to this decline.

Of the funds that run a UK / Overseas equity split rather than invest globally only a small number of still manage their active equity portfolio on a geographical regional basis. These funds tend to be at the larger end of the size range.

Global equities last year returned 8.6% in aggregate. The split of returns can be seen in Figure 4. There is not a consistent approach to passive management within equities either. Whilst some funds invest in a global equity fund most invest against a fund specific global equity allocation. Generally this allocation has a lower exposure to the US market than the major indices and this is reflected by the underperformance of this group relative to the broad market indices.

Figure 3: Global equity returns 2018/19

	% return
Global equity	8.6
Total active	9.4
Total passive	7.4
Bespoke	7.0
Index	11.8
Hedged index	5.7
Enhanced index	7.0

The passive funds tracking global indices performed best last year as can be seen in Figure 3. The funds tracking enhanced indices (RAFI, low volatility etc) delivered lower returns in line with these indices. It will be interesting to follow the relative results of these groups as we have seen increased interest and investment into enhanced index strategies.

Across both active and passive equities we have seen, in this latest year, a move into **green / low carbon / environmental equity** investments. Most funds going down this route are currently investing passively against a market index excluding predefined stocks, or reweighted to reflect particular factors. This has been facilitated by the availability of a range of indices now that cover a wide range of solutions to particular concerns (low carbon, ex fossil fuels, ESG screened etc) which are able to track the main global indices within relatively tight bands. This is a far more balanced approach than simple stock exclusion as funds can implement strategies to meet their environmental guidelines whilst ensuring that return and volatility remain broadly consistent with their previous investment approach.

Other funds are investing actively in vehicles designed to be climate aware with a sustainable focus, usually measured against the standard global indices.

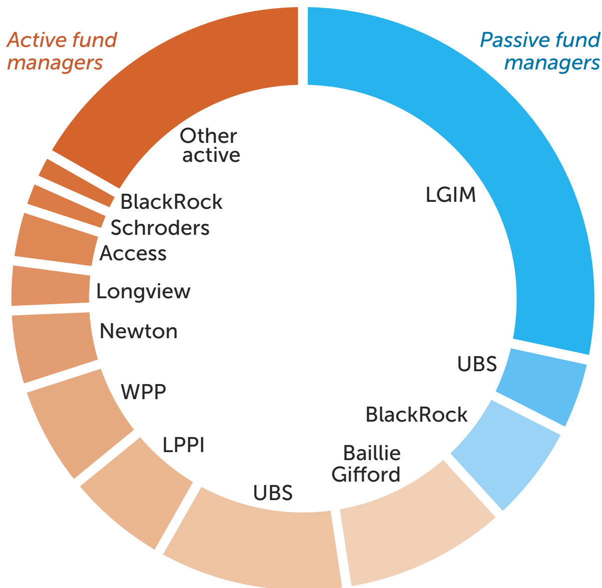
From a level of close to zero a year ago we now see a fifth of the Universe global equity investment by value invested in these types of funds. We will monitor the

performance of this group from next year when we have a full year of data available.

Active global equity managers failed to add value against the index in aggregate this year Baillie Gifford, the largest manager in this group underperformed as did UBS and Schroders whilst of the other main managers Longview and Newton both outperformed the index. The best and worst performers this year were less well known managers. Veritas produced returns of around 18% for the year while Woodward, Hoskins and Natixis Harris all failed to achieve a positive return.

The bulk of global equity money remains with LGIM, UBS and Baillie Gifford as shown in Figure 4.

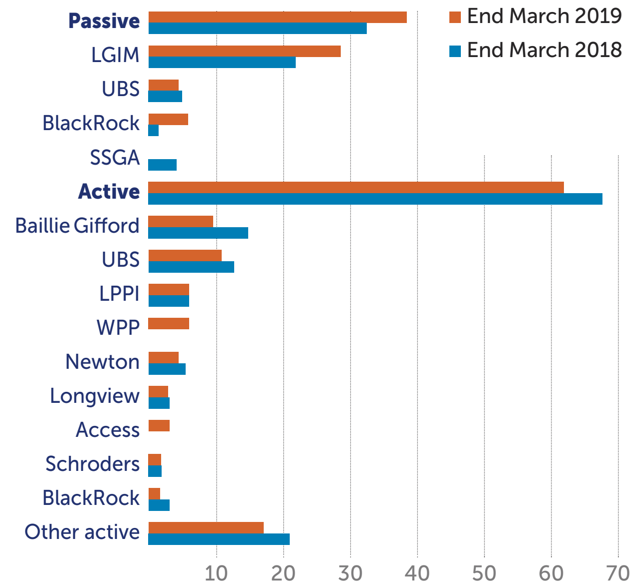
Figure 4: Global equity managers by % value, 31/3/19



If we look at Figure 5 we can see that there has been a continuation of the move towards passive management of global equities and that LGIM has been the major beneficiary of the restructuring brought about through pooling. SSGA which last year was the sixth largest manager of local authority global equities is no longer represented at all.

The move to pooling makes it increasingly more difficult to quantify just who manages what part of the LGPS assets. For instance it appears that Baillie Gifford has seen a substantial reduction in assets under management when, for example, they now manage a sizeable part of one of the two WPP global offerings. We will come back to look at this issue further through the review.

Figure 5: Change in % of global equities under management



The move to pooling makes it increasingly more difficult to quantify just who manages what part of the LGPS assets.

UK Equities

UK Equity performance in the latest year was below the FTSE All Share return of 6.4%. Whilst a quarter of UK equities are managed passively the majority of UK equity portfolios are managed actively and last year the active managers fared poorly with the average actively managed UK equity portfolio returning only 5.7% after fees. Whilst this number is disappointing the real scale of the underperformance can be seen if the internally managed UK equity results are stripped out. Internal UK equity managers performed strongly last year – removing them leaves the external active UK equity managers delivering an average return of only 3.7%, almost 3% behind the index. Majedie (who underperformed last year) remains the most used active manager in this area although this will obviously change as funds move further into the Pool offerings.

Bonds

Bond markets produced small positive returns as can be seen in Figure 6. Those funds that invested in abso-

lute return mandates delivered a return of only 1% this year. Multi-asset credit also performed poorly. Bond portfolios that are managed against market indices performed broadly in line with these benchmarks Most bonds are managed on an active basis and the continued move towards absolute return portfolios (all of which are managed actively) has meant that the level of passive management within this group has declined further in the latest year.

Figure 6: Bond performance relative to market benchmarks

%	Return	Relative to BM
UK Government	5.1	+1.4
UK corporate	4.0	-0.1
UK IL	5.3	-0.2
Global	8.2	+4.0
Absolute return	1.0	-3.5
Multi-asset credit	0.1	-4.4

Alternatives

Alternative investments, as usual, produced a wide range of results measured against a very broad range of targeted outcomes:

Private Equity remains the largest of the 'alternative' assets. It also continues to be the best performing, delivering a return of 15% for the year. Whilst most funds continue to measure this asset against an equity index (or against an equity index with a hurdle) a number of funds are incorporating this within their overall absolute return alternative strategy.

In the latest year **infrastructure** investments also performed extremely well, with funds averaging over 11%. More than half the funds in the Universe now have an investment in this area. A return of between 4% and 6%, either expressed as an absolute or as a percentage over cash is the most common benchmark and we are seeing an increase in green investment within this area.

Absolute return / hedge funds produced a return of 2% for the year, broadly similar to that of diversified growth and absolute return bonds. Whilst there is a broad range of benchmarks used across the group it is encouraging to note the continued move away from a cash only benchmark to the more taxing (and more appropriate) 'cash plus'.

Absolute return investments performed poorly last year, behind benchmarks and below the return of other asset classes.

Diversified growth

This asset saw another relatively disappointing year, delivering an average of 0.3%. Newton was the only manager to outperform its benchmark last year, whilst Ruffer, GMO and Aberdeen Standard failed to achieve positive returns. This continuation of disappointing performance saw a number of funds disinvest from this asset during the year.

Property

Property delivered an average return of 6% for the year, in line with the IPD benchmark. The range of returns was extremely tight with most funds grouped between 4% and 7% for the year.

Over 90% of funds in the Universe now have some property exposure and we saw a widening of the scope of property investing with funds looking at property income investments to include within the bond/income part of their strategy and residential property funds too.

LONGER TERM PERFORMANCE

- **Long term performance has been excellent. Funds delivered a positive return in 25 of the last 30 years and delivered an annualised performance of 8.4% p.a. – a return significantly ahead of inflation.**

- **Whilst larger funds in aggregate have outperformed, the very best performance continues to come about from some of the very smallest schemes.**

Performance has been, and remains, extremely strong over the medium and longer term. The thirty year return of 8.4%p.a, is almost 6% p.a. ahead of inflation over the same period. This exceptional level of return will have been reflected in large savings of running invested funds over a pay as you go approach.

Figure 7 shows that there have been only two periods of negative performance in the last thirty years – at the start of the millennium (the bursting of the dot-com bubble) and the global financial crisis of 2008/9. Both periods were followed by strong double-digit returns. The equity 'shocks' that investors are so concerned about mitigating have been infrequent and the reward for holding equities substantial.

Figure 8 shows the average returns achieved across each of the three year actuarial valuation periods together with the average return for the last 30 years. The three year return will have an important impact on funding levels and costs to the participants. This year, with upcoming actuarial revaluations in England and

Figure 7: Long term performance of local authority funds

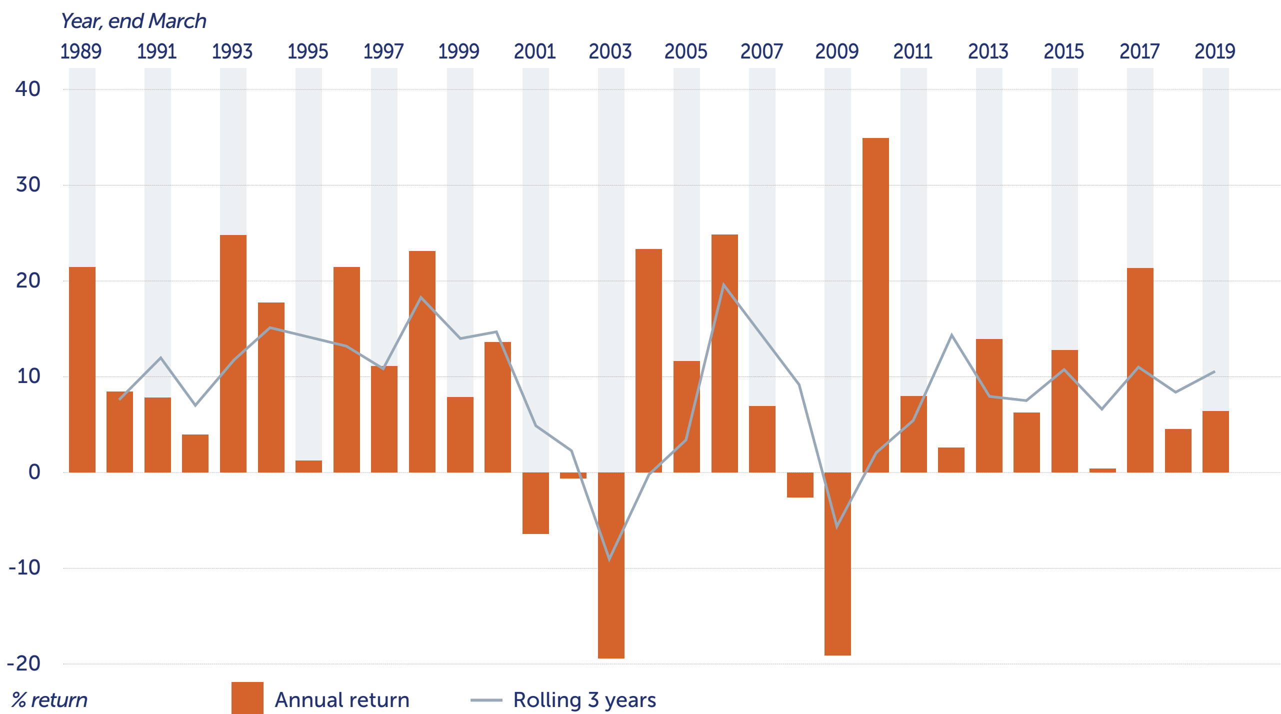
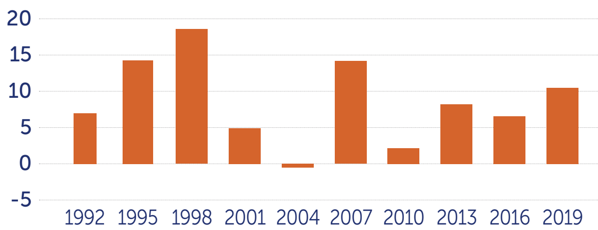


Figure 8: Returns over actuarial revaluation periods

% p.a. returns between actuarial valuation



Wales this return will be under particular scrutiny.

Despite global and domestic UK political and economic uncertainty, investment markets surged ahead over the last three years and most funds have seen fund values grow by around 30% over the period – well ahead of even the most optimistic expectations and actuarial projections. This, combined with flattening mortality data may make this valuation a little less painful than funds had expected.

Figure 9 shows that over the three years the average fund returned 10.5% p.a. and over the ten years returned 10.7% p.a. These results are particularly impressive when viewed in the context of very low single digit inflation over the same period.

Figure 9: Range of results, to 31/3/2019

% p.a.	3yrs	5yrs	10yrs	20yrs	30yrs
Average	**10.5**	**8.8**	**10.7**	**6.4**	**6.4**
Top quartile	10.8	9.2	11.2	6.6	8.5
Median	10.0	8.5	10.6	6.0	8.2
Bottom quartile	9.2	7.8	10.1	5.7	8.0
Interquartile range	*1.6*	*1.5*	*1.2*	*0.9*	*0.5*

The table also shows the range of results – 50% of returns fall between the top and bottom quartile (the interquartile range) and the median is the middle return achieved (regardless of fund size).

The median result is below the average over all periods indicating the relatively strong performance of larger funds in aggregate over their smaller peers. This long term outperformance was one of the key drivers of the pooling initiative.

This result does not reflect the range of results across the smaller funds, a group within which there is a marked dispersion. Indeed over all periods the very best performances have come from some of the smallest funds.

It is interesting just how tightly grouped the returns are over the longer term. Despite a great multitude of managers, strategies and advisers over the last thirty years most local authority schemes produced a return within 0.5% p.a. of their peers.

Asset class performance

Different funds are cutting their assets in different ways. Some are looking at liability matching and growth, others are carving out income generation, whilst others focus on liquidity. This can mean funds could hold the same investment but for different reasons. For instance one fund may include private credit

Asset class performance is becoming increasingly difficult to disentangle as funds become ever more complex.

Figure 10: Longer term performance by asset class, % p.a. to end March 2019

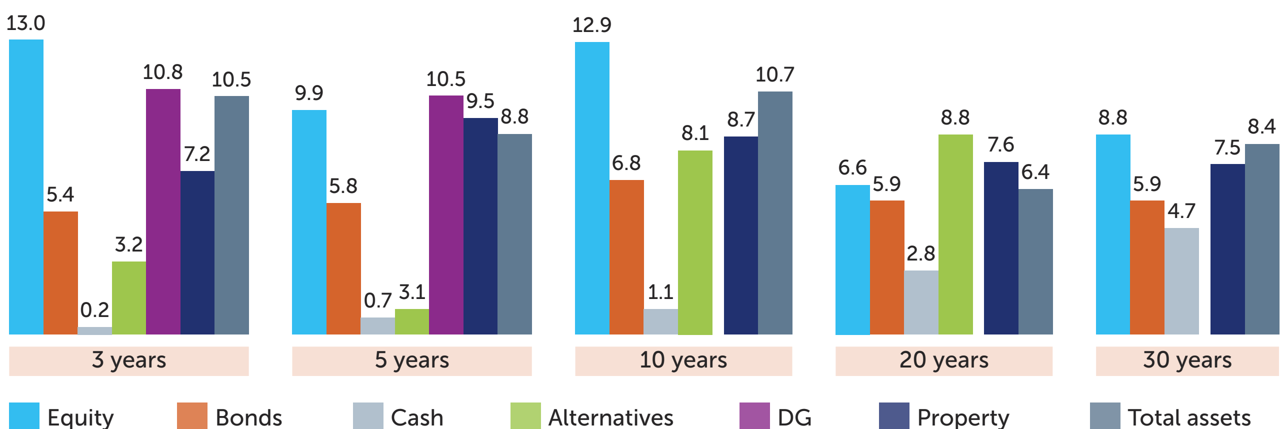
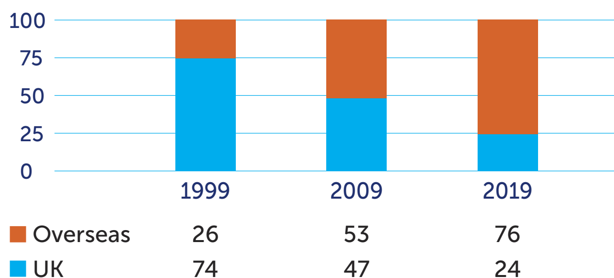


Figure 11: Equity allocation over time, % at end March



within alternatives whilst another may show it under their bond allocation.

Even within asset subclasses, we see funds with markedly different investments and benchmarks as they seek quite different outcomes – infrastructure remains the prime example of this.

Equities

Equities remain the most transparent of the asset classes insofar as most funds have a dedicated equity component benchmarked against a market index (or combination thereof).

In aggregate active global equity managers have not added value over the long term.

The latest year saw a continuation of the long term trend away from domestic equities. As can be seen in Figure 10 the average UK exposure has declined dramatically over the past twenty years. It is now less than a quarter of total equity exposure compared to half ten years ago and three quarters twenty years ago.

Now less than half of funds still retain a separate allocation to UK equities. This separation is largely a historical artefact – funds believed that UK assets were a better match for their UK liabilities and that domestic managers had a better chance of success in outperforming the UK market. This is consistent with a 'home country' asset allocation bias by investors across the world.

Funds that held a relatively high exposure to **UK equities** within their portfolios would have achieved returns below those of their peers in the latest year and over the longer term as UK equities have trailed their overseas peers – shown in Figure 11. Over the last five years the UK equity return has been only half that from overseas markets. This is a combination of both the weakness of the UK market and the weakness of Sterling over much of the period.

Figure 12: Longer term equity regional performance

	% p.a.		
	3 years	5 years	10 years
UK	9.2	5.9	11.5
Overseas	14.1	11.6	13.2
North America	17.0	15.6	16.4
Europe	11.0	8.3	11.6
Japan	13.7	12.2	10.7
Pacific	14.1	9.1	11.9
Emerging	13.3	8.7	10.6

Although still ahead over the longer term active UK equity managers have trailed the index over the medium term as can be seen in Figure 12, undermining one of the key arguments for a home bias within fund allocation.

Over the medium term, the overall **global equity** return has been exceptionally strong – double the level of assumptions made by actuaries in their scheme modelling. US equities have outperformed the other major markets over all longer term periods, assisted by the strength of the Dollar.

UK equities have performed relatively poorly when compared to overseas markets over both the short and medium term.

Funds have, in aggregate, failed to add value over the market indices over the medium and longer term as can be seen in Figure 13. Whilst some of the blame for this lies firmly at the door of many active managers

Figure 13: Equity performance relative to indices

	% p.a. to 31/3/19		
	3 years	5 years	10 years
Global equities	14.3	11.6	13.2
World index	14.4	11.8	13.4
Relative	*0.0*	*-0.2*	*-0.2*
UK equities	9.2	5.9	11.5
FTSE All Share	9.5	6.1	11.1
Relative	*-0.3*	*-0.2*	*0.4*

some of the underperformance has resulted from the costs incurred in changing managers and the opportunity costs incurred from moving managers at the wrong point in their cycle or of holding on to them too long.

Funds have to accept that this reduced volatility may come at a cost and that cost may be the reduced opportunity to substantially outperform the benchmark.

The move into pooling is tasked with improving upon these lacklustre results. However at first glance it would appear that some of the structures that are being implemented will find it difficult. We have discussed before the difficulties of complex structures. Funds may feel reassured that the broad diversification will succeed in bringing down volatility (whilst one manager is failing it is hoped another will be excelling). Funds do however have to accept that this reduced volatility may come at a cost and that cost may be the reduced opportunity to substantially outperform the benchmark.

Around a quarter of funds hold a separate allocation to **emerging markets**, giving them the opportunity to flex their equity risk profile. The long held assumption has been that these markets experience higher volatility than developed markets but that this risk will be rewarded by higher returns. However, the decision to hold emerging markets has not been rewarded over most of the last decade with returns from this area below those delivered by most developed markets.

Bonds

Historically funds held most of their bond exposure within two main investments – **UK Government** (nominal gilts) and **UK Government Index-Linked** securities. These assets were seen broadly as a diversifier for equities and a proxy for scheme liabilities.

Diversification began in the late 1980's as funds started to invest some of their bond allocation overseas and continued in the mid noughties when funds started to seek out the higher returns available from corporate debt. For over a decade the average fund has held more in UK corporate bonds than it does in government gilts.

More recently we have seen funds invest in bond portfolios that are not benchmarked against market indices but which are seeking instead to deliver an absolute level of return (usually defined as Cash plus x%). These absolute return portfolios aspire to tap into better returns from a diversity of issuers, unencumbered by the straightjacket of the machinations of domestic interest rates and manipulated yields (sometimes negative in real terms) that have been available across bond markets in recent years.

We are also seeing some funds allocate some of their strategic bond weighting into multi-asset income / multi-asset credit funds where the manager can invest across a range of assets to achieve a targeted yield or an absolute level of return.

Figure 14: Longer term bond performance

	% p.a. to 31/3/19		
	3 years	5 years	10 years
UK bonds	5.4	5.6	7.2
UK index linked	7.5	8.8	8.7
Overseas	7.5	7.1	6.2
Absolute return	2.9		

Over all periods as can be seen in Figure 14, index-linked gilts have been the best performing of the bond assets assisted by the increased demand from pension funds seeking to match liability cash-flows and by investors concerned about the possibility of rising inflation.

Longer term, funds have outperformed the market indices because of their overweighting to longer dated issues, a sector that has performed well over this period driven in large part by high demand from pension funds trying to buy assets that more closely match their liability profiles almost regardless of price.

Alternatives

As can be seen in Figure 15 the weighting in alternatives has doubled over the last decade to reach the current level of 11% of the average funds' assets. Ten years ago around half of all alternative investment was held within private equity, a percentage that has stayed broadly consistent through the period. However, the investments that funds held ten years ago in active currency and tactical asset allocation funds have largely disap-

Figure 15: Allocation to alternative investments as % of total fund

	2004	2009	2014	2019
Private equity	1	3	4	5
Hedge funds / Absolute alts	0	2	2	3
Infrastructure	0	0	1	3
Other	0	1	0	0

Figure 16: Longer term performance of alternatives

	% p.a. to 31/3/19		
	3 years	5 years	10 years
Private equity	14.5	14.7	10.2
Hedge funds / Absolute alts	4.6	4.4	5.0
Infrastructure	11.8	11.0	-

peared and been replaced with infrastructure, hedge fund and various absolute return strategies instead.

Hedge fund investment increased markedly following the credit crisis as funds sought to reduce equity volatility, peaking in 2011 before falling back, partly on the grounds of disappointing returns and in part, as funds diversified into an increasingly broad and complex, but arguably more transparent, pool of other **absolute return** investments.

Allowing better access for smaller funds to infrastructure investments was one of the key drivers behind pooling.

Infrastructure has only been identified as a distinct component of many funds' strategies in recent years but is becoming increasingly important as funds seek diversified forms of risk and relatively high yields. It now makes up just over a quarter of the total alternative exposure of the average fund. Allowing better access for smaller funds to infrastructure investments was one of the key drivers behind pooling and we expect that the exposure of many funds will increase over the relatively short term as the pool offerings in this area start to draw down funds.

Figure 16 shows the strong results from private equity and infrastructure. Whilst absolute return funds have delivered returns in line with their benchmarks, the return achieved over all periods has been well below the other alternative asset classes.

Diversified Growth funds

These funds make up 3% of the average fund but commitment to this asset is skewed, with over half of all funds having no exposure at all. Over the last five years, these funds returned an average of 3.1% p.a. This level of return is well below that of most other assets. It also remains below the benchmark expectations of many investors in this area. However the returns have been delivered at relatively low volatility. Both the return delivered and the level of volatility have been just over a third of that of equities over the five year period.

Funds have benefited from their long term high commitment to equities.

Property

After its significant fall in value immediately post the global financial crisis in 2008/09 property has recovered well. Although the near term returns trail those of equities, at 7.3% p.a. and 9.6% p.a. over the three and five years respectively, the recent performance has been close to the long term (30 year) average for this area of just below 7.5% p.a.

Whilst we are seeing a small degree of international diversification the vast bulk of property investment remains UK based.

Cash

Any exposure to cash over any of the periods would have reduced overall fund performance. To be fully invested has been a very successful long term strategy.

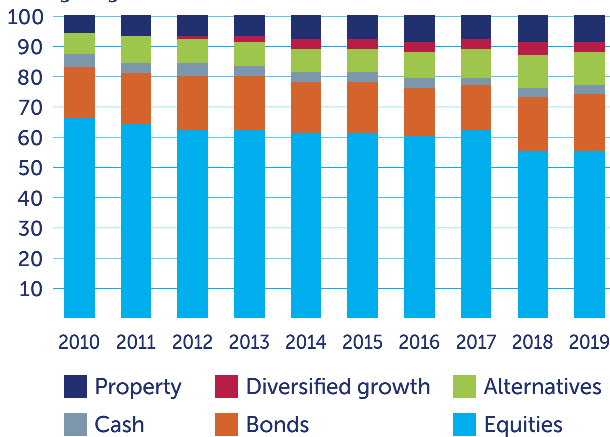
Asset allocation

Figure 17 shows high level asset allocation remained broadly unchanged over the last decade – with equities remaining the dominant asset class in most funds' allocations. The average local authority fund is still substantially overweight equities when compared to schemes in the corporate sector that continue to run an investment portfolio . These

Funds structure is becoming ever more complex.

Figure 17: Asset allocation, last ten years

% weighting at 31/3/19



schemes have shrunk their equity component as they have sought to 'de-risk' their assets, moving instead to bonds and cash-flow matching investments.

Given the strong performance of equities over the recent past this decision will have made the corporate schemes considerably more expensive for the employer. In contrast, LGPS funds have seen their asset values increase significantly. As well as having a positive impact on funding levels this has offset some of the increases brought about by increased longevity and falling bond yields (the metric on which they are measured) in their liabilities over the same period.

Despite this broadly static high level asset allocation there has been considerable change to the detail of funds at the detailed level with alternatives portfolios in particular becoming ever more diverse.

Complexity

There has been a strong trend for funds to hold ever larger numbers of portfolios of relatively small value. It is not uncommon now for even the smaller funds within the LGPS to be structured in such a way that requires them hold a double digit number of managers.

Complexity brings considerable burdens in terms of administration, monitoring and governance.

Complexity brings considerable burdens in terms of administration, monitoring and governance (particularly for relatively illiquid investments) whilst further increasing the number of managers or investment products is likely to have a minimal impact on the fund bottom line.

The move into pooling should offer the opportunity to reduce complexity and the number of portfolios held. There is an opportunity to simplify asset structure through the member authorities being offered a limited number of well run, well targeted investment funds.

The move into pooling should offer the opportunity to reduce complexity and the number of portfolios held.

Currently however, it seems that pools are trying to accommodate as many funds' asset class, product and manager preferences as possible and, as such are still talking of running large numbers of sub funds.

Within the London CIV funds buy individual managers and so they retain direct control over manager selection (albeit from a limited subset of managers offered by the CIV) and the level of manager diversification they want.

Most of the other pools have however taken a different approach – whereby an individual fund will invest, for example in the pools global equity portfolio. In this scenario this portfolio is almost certain to contain more than one manager. The individual fund has no direct control over either the firm chosen or the number of managers within the grouping.

There are pros and cons to such an approach. One advantage could be that the Pool takes the historically difficult, timely and expensive task of manager selection from individual funds, freeing them to focus on strategy. A second advantage is diversification – by having a range of managers for one asset the fund should achieve less volatile performance. Yet another advantage could be a reduction in cost.

Amongst the potential disadvantages is firstly the possibility that the Pool turns out to be no better at selecting managers than the individual funds. Indeed there is no track record offered by any of the pools to suggest additional skill in this area.

A second downside could be that with a group of managers the opportunity for strong outperformance is reduced. A third may be that by allocating smaller amounts of money to a number of managers costs do not reduce to the anticipated levels.

The final disadvantage of this approach may be the extra cost incurred in paying someone (either the Pool or an intermediary) to monitor and manage the suite of managers.

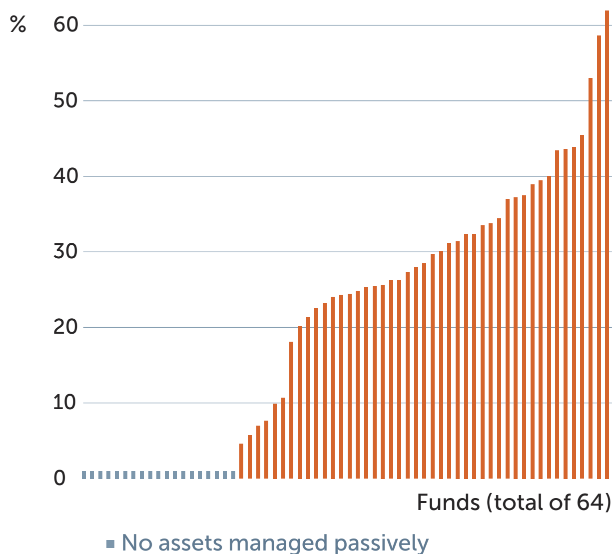
How this plays out in performance and cost terms over the next few years will be of enormous interest. We will come back to this issue to review further towards the end of this document.

Active or passive?

The proportion of funds managed actively, although lower than a decade ago, remains high, at around three quarter of total assets. In the latest year we saw a small increase in passive equity investment as funds reviewed their equity strategies ahead of pooling.

It seems counterintuitive that, although funds are focussed on reducing costs the move from (high cost) active management to (low cost) passive has not gained more significant ground and that most funds continue to seek active value over and above the active managers' fees.

Figure 18: Level of passive management by fund
% passive at end March 2019



Currently within the Universe there are just under a third of funds that are entirely actively managed whilst a further third have more than 30% managed passively as can be seen in Figure 18.

Risk and volatility

- Over recent years we have seen a continued move away from equities and a commensurate increase in lower risk investments such as absolute return strategies and in assets with strong income generating potential, such as multi asset credit and infrastructure.

There has been a move from equities to 'lower risk' investments.

- Whilst many view their funds as very long term investments and are therefore prepared to live with market volatility in the short term, others are increasingly looking to mitigate the impact of these short term fluctuations.
- Negative cash-flow (or the ever-nearing possibility thereof) means funds are having to consider how best to enhance income flows.
- Given the relationship between risk and return it little surprise that the best returns over the recent past and the longer term have been delivered by the funds that have accepted the highest level of volatility.

The long-term performance is always dominated by the results from equities. Despite disinvestment from this area over many years, equities still make up more than half of the average fund asset allocation. Over the last decade there has been a marked move away from UK equities towards global equity portfolios. This move has resulted in US equities becoming the largest component in most funds equity portfolios and for many the largest single component of their entire fund. Funds have different attitudes to the investment (asset) risk that they are taking. Whilst many view their funds as very long term investments and are therefore prepared to live with market volatility in the short term, others are increasingly looking to mitigate the impact of these short term fluctuations. Over recent years we have seen a large increase in lower risk investments such as absolute return strategies and in assets with strong income generating potential.

These lower risk strategies are being put in place be-

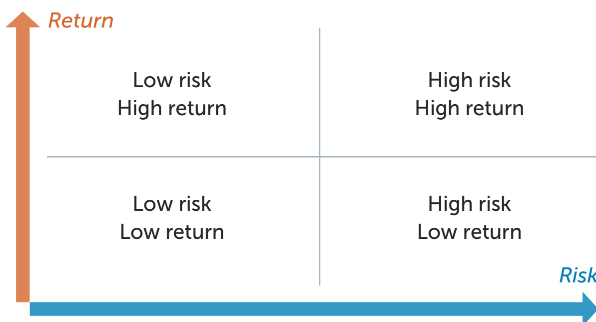
cause of the changing circumstances in which funds find themselves. After decades of being in a situation where the money coming in (through contributions and income) has been greater than that going out (in pension payments) some funds are experiencing negative cashflow for the first time. This brings new challenges as funds try to avoid a situation where they are forced to sell assets at distressed values.

The more volatile assets have delivered the highest return whilst the least volatile has delivered the lowest.

Complex profiles of admitted bodies also have an impact on individual fund risk appetite and finding strategies to deal with this issue continues to tax many funds.

Figure 19 shows there is a direct (and ordinarily obvious) relationship between risk and return and as such, we should expect to see the more risk averse funds deliver lower volatility but achieve lower returns than their peers.

Figure 19: Relation between risk and return



We have plotted the various asset classes into this risk/return space over the last ten years In Figure 20 below. It can be seen that, as usual, the more volatile assets (equities) have delivered the highest return whilst the least volatile (cash) has delivered the lowest.

If we look at the shorter term in Figure 21 a very similar picture emerges. Funds have been rewarded for the risk that they have taken on through their equity investment be that quoted or private. Infrastructure has been the most efficient asset over this period delivering a return of 11% p.a. at a volatility of under 5% p.a. (although this volatility may be understated by the valuation process of some of these investments).

Figure 20: Asset class returns in Risk/Return space - last ten years

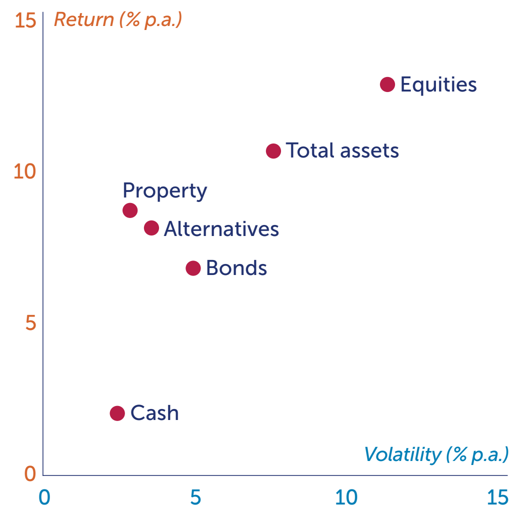


Figure 21: Asset class returns in Risk/Return space - last three years

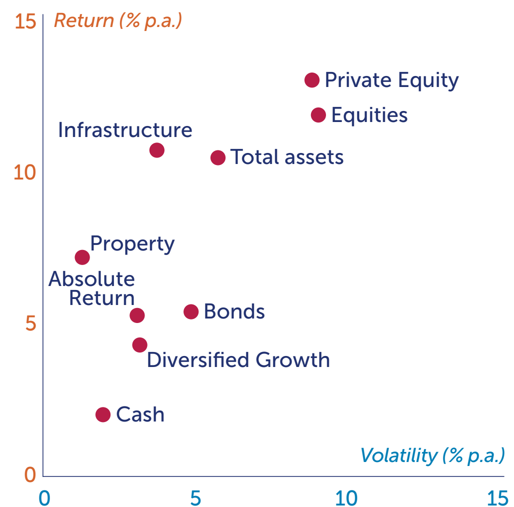


Figure 22 shows individual fund performance over the period in risk and return space. Each fund is represented by a blue dot. The higher the fund lies on the vertical y axis the better its return, the further to the right on the horizontal x axis the greater the volatility experienced. The cross-hair lines represent the median risk and return.

Over the ten year period the funds that have performed best have been the ones that have accepted a higher level of volatility. Whilst there is a clear trend line of the return increasing in line with volatility it is

Figure 22: Risk and return distribution of funds over last ten years

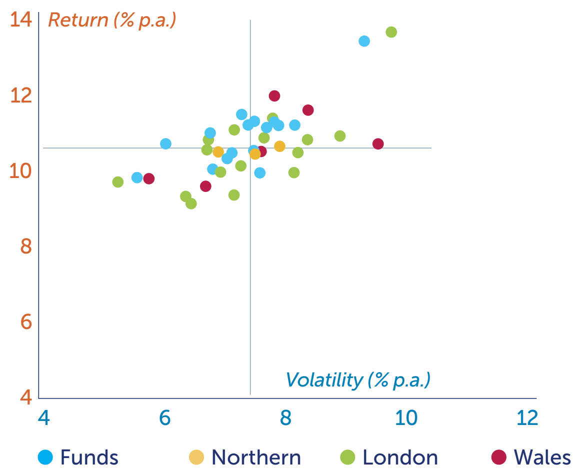
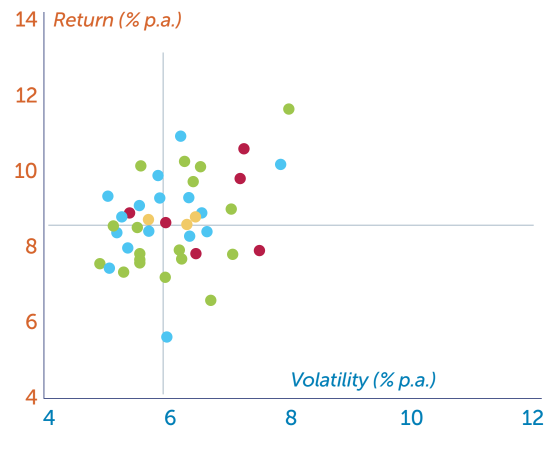


Figure 23: Risk and return distribution of funds over last five years



Not all funds are included in the risk/return analysis as not all have been able to provide the monthly data necessary to calculate fund volatility.

interesting that some funds do seem to 'derisk' significantly more efficiently than others. The small number of funds in the top left quadrant that have managed to deliver better than average results at a lower than average volatility tend to be larger than their peers – size perhaps allowing more effective diversification?

Over the last five years, as can be seen in Figure 23 overall volatility has reduced as has the overall level of return generated. The spread of results has widened over this period and the risk/return tradeoff is less clear to see although the best performing funds are still those accepting the highest volatility.

Over the long term a lower risk strategy has come at a (often considerable) cost. Whilst we would not wish to comment on the efficacy of one approach over the other, it is important that investment committees, officers and other decision makers appreciate the potential value implications of 'de-risking'. Most LGPS funds have liabilities that are extremely long term in nature. This should allow funds to be less concerned with short term volatility. The strictures put in place by the cycle of triennial revaluations can have the effect of reducing funds' time horizons and focussing them on much shorter term periods. However, as we have shown earlier, it is a much rarer occurrence than may be commonly perceived for there to be a negative result over the three year triennial period.

Over the long term a lower risk strategy has come at a (often considerable) cost.

Figure 24: Global equity pool offerings

MULTI MANAGER					SINGLE MANAGER	
B2C	LPP	Central	Wales (Opp)	Wales	Access	London
Investec	Internal	Union Investment	Morgan Stanley	Baillie Gifford	Longview	Longview
Harris Associates	Robeco	Harris	Numeric	Pzena	Baillie Gifford	Baillie Gifford
Lindsell Train	Magellan	Schroders	Sanders	Veritas	M&G	Epoch
Loomis Sayles	First Eagle		Jacobs Levy			Allianz
	Wellington		S W Mitchell			Newton
	Baron		NWQ			
			Oaktree			

Best and worst performing funds

Over the last 5 years the funds that have achieved the best returns shared a number of features. The funds have held a relatively high level of equities throughout the period. As a result they have experienced more volatility than other funds and, over this period the volatility has been rewarded. However they have also shared some other common features. The funds have had more of their assets managed actively than their peers. They have had a relatively high level of investment in Baillie Gifford and BlackRock. The funds tend (but are not all) smaller than average and the fund structures are less complex. These funds are generally well funded. We do not know whether they have done well because they are well funded (and can therefore accept more volatility) or whether they are well funded because of the strong relative performance.

The funds that delivered the lowest returns also share some characteristics. These funds have a relatively low level of equities and a commensurately higher level of alternatives particularly diversified growth investments. They are almost all less volatile than average. Like the best performing group these funds tend to be smaller than average. These funds have a higher than average portion of their assets managed on an index tracking basis – possibly a reasonable response to disappointment from their active managers over part of the period.

This group of funds tends to be relatively poorly funded when ranked against their peers. Again, it is difficult to untangle whether they have de-risked because they are poorly funded or whether they are poorly funded because they have de-risked. What we can say with certainty is that a lower risk / lower return approach is unlikely to close any funding gaps and it is likely that the participants in these funds will see contributions rise to close the shortfall.

Impact of pooling

The returns that are shown for the latest year do not include any costs that funds have incurred in the set-up of the various pooling arrangements. At this stage these costs are likely to have little impact on overall scheme returns. Going forward we continue to investigate how best to collect the direct costs at individual scheme level so that performance can be calculated before and after these costs which have the potential to vary quite markedly across participating funds. It will also be important to show that the pools are delivering value for the participating funds. We have some concerns around the level of return being sought for some of the pool funds on offer.

Fund performance still does not incorporate the direct costs of Pooling.

Most of the pools have now launched their active equity offering, the structure of each is outlined in Figure 24.

The London CIV and Access Pool have taken the same approach whereby individual funds can select between single manager funds, thereby allowing the manager selection to remain with the investment committee. The other Pools, with the exception of Northern where the participating schemes are remaining broadly intact, are offering a multi-manager approach.

Multi manager funds

In a multi-manager scenario the Pool chooses a number of managers, in most cases these are external whilst in the case of LPP this is a combination of internal and external. The multi-manager approach intends to reduce volatility whilst combining portfolios in such a way as to deliver outperformance.

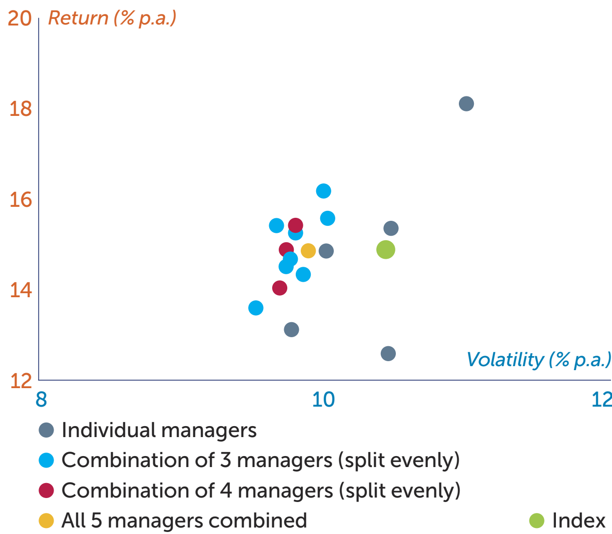
Pools must be able to show they are delivering value for participating funds

Multi-manager products have been available for many years. Indeed a number of pension funds invested in such products years ago before divesting on the back of disappointing performance. Will the pools fare better? This will depend on whether they have greater skill in manager selection than has previously been demonstrated by the industry as a whole.

Active equity managers have not fared particularly well over the recent past as we discussed at length last year. To get a feel for whether funds would have achieved a better result from a multi-manager

approach we took monthly data for indicative portfolios for the last three years for the top 5 active global equity managers and then combined these in a variety of combinations which are shown in Figure 25.

Figure 25: Global multi-manager combinations. 3 years to end March 2019



The individual managers are shown in grey. The combinations of three managers (split evenly) in red, combinations of four managers (split evenly) in blue and all five managers combined in yellow. The index is shown in green.

Looking at the combinations of three managers it can be seen that the multi-manager approach does reduce the volatility of returns as would be expected. It also reduces the range of results – in effect the opportunity for strong outperformance (or underperformance) is diminished. If we then increase the complexity to four funds (shown in purple) the volatility and range of results increases further. By the time we increase the structure to five managers the return that is generated is in line with the index (albeit at lower volatility).

These results do not include the additional inevitable layer of cost that comes about from the structures that need to be in place to select, monitor and review the managers within the offering. So, a multi-manager approach will almost certainly reduce volatility however it would seem that such an approach is likely to deliver returns that are closer to the market index than that which would be delivered by a single manager. We therefore question just how the aggressive outperformance targets set by the pools will be met.

A multi-manager approach will reduce volatility but may dampen performance.

Looking at the roster of managers within the offerings we are seeing many who were previously unknown to and have no track record within the Local Authority market. These firms are often quite small and specialised. This may or may not result in interesting innovative insights that allow exceptional performance but it also raises other potential issues such as key man risk, something of which unfortunate investors in Woodford will be uncomfortably aware.

Funds will need to ensure that the move into pool assets is in their own best interests and will not negatively impact longer term returns.

As part of good governance each fund investing in the multi-manager arrangements should expect to be given detailed information to allow them to understand:

- who the managers selected are – structure / size / people / investment style
- how these managers have been chosen
- why the allocation between managers is as it is
- how the Pool expects the component managers to perform and in what way
- how the Pool expects the aggregate portfolio to perform and in what way
- what process is in place for monitoring and over what periods
- what procedures are in place in case of 'failing' managers
- how are the oversight costs incorporated into performance.

It will be an interesting few years as we see just what these strategies deliver. As a check on how the change has impacted them, funds may find it useful to continue to measure the performance of their outgoing managers. This would give a very simple comparison of the value added (or otherwise) of the move. Please get in touch if you'd like to discuss this further.

APPENDIX

Longer term returns, % p.a.

	2019	3 years	5 years	10 years
Total Equity	**7.3**	**13.0**	**9.9**	**12.9**
Global	8.6	14.3	11.6	13.2
UK	5.7	9.2	5.9	11.5
Overseas	6.0	14.1	11.6	13.2
North America	16.2	17.0	15.6	16.4
Europe	2.0	11.0	8.3	11.6
Japan	-1.2	13.7	12.2	10.7
Pacific	2.9	14.1	9.1	11.9
Emerging	0.0	13.3	8.7	10.6
Total Bonds	**3.7**	**5.4**	**5.8**	**6.8**
Global	3.9	5.9	3.5	1.7
UK Bonds	4.5	5.5	5.7	7.2
UK Government	5.1	5.7	-	-
UK Corp	4.0	5.8	-	-
UK IL	5.3	7.6	8.9	8.8
Non UK bonds	3.9	6.1	6.2	5.8
Absolute Return bonds	-	-	-	-
MAC	0.1	-	-	-
Cash	**0.8**	**0.2**	**0.7**	**1.0**
Alternatives	**10.3**	**10.8**	**10.5**	**8.1**
Private Equity	15.3	15.1	14.7	10.2
Hedge Funds	1.8	3.1	4.5	5.0
Infrastructure	11.7	11.9	11.0	-
Diversified Growth	**0.3**	**3.2**	**3.1**	-
Property	**6.1**	**7.2**	**9.5**	**8.7**
Total Assets	**6.6**	**10.5**	**8.9**	**10.8**

Asset allocation

	% Allocation at end March											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Equities	65	62	66	64	62	63	63	62	60	62	55	55
Bonds	18	20	17	17	18	18	17	17	16	15	18	19
Cash	4	4	4	3	4	3	3	3	3	2	3	3
Alternatives	5	7	7	9	8	8	8	8	9	10	11	11
Diversified Growth	-	-	-	-	1	2	3	3	3	3	4	3
Property	7	7	6	7	7	7	8	8	9	8	9	9

The questions that the Universe seeks to address

THE PIRC Local Authority Pension Fund Performance Universe is a survey of UK local authority defined benefit pension funds. As at 31 March 2019 it comprised 64 funds with a value of £193 bn.

At aggregate level

- How has the LGPS performed in absolute terms over the short, medium and longer term?
- Is the LGPS adding value relative to the strategic benchmarks that funds have set?
- How is the LGPS structured in terms of asset allocation and how has this changed over time?
- What is the performance of the aggregate LGPS in the major asset classes in which it invests over the short, medium and longer term?
- How does this performance compare against benchmarks?
- Is risk taken being rewarded?
- What is the spread of performance – why are some funds performing better than others, can strengths and key drivers of performance be identified?

At fund level

- How does the absolute level of investment return achieved by the fund compare with others in the LGPS?
- What level of risk has been taken to achieve this return and how does this compare with others?
- How does the relative performance compare to that achieved by others in the LGPS?
- What level of risk has been taken to achieve this return and how does this compare with others?

These questions can be answered relative to the full LGPS or split in a variety of ways including by region/funding level/structure

- How have these differences come about?
- How does the structure of the fund differ from other funds?

New questions relating to pooling

- How does the level of investment return achieved by the fund compare with others in the pool?
- How does the relative performance compare to that achieved by others in the pool?
- How has the pool manager performed relative to its benchmark, target and other pool managers operating the same mandate?
- How has the overall pool performed in absolute terms relative to other pools?
- How has the overall pool performed in relative terms relative to other pools?
- Is the performance of the pool improving?
- Is the volatility/risk of the pool reducing? How does this compare to the other pools?
- Is manager change within the pool reducing? How does this compare to the other pools?
- How does the structure of the pool differ from that of the other pools?

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