INVESTMENT RESEARCH – STRUCTURE REVIEW

SCOTTISH LGPS SCHEME ADVISORY BOARD WORKING GROUP

DECEMBER 2016

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SUMMARY: THE OPTIONS

Options	1. Aggregate fee arrangements	2. Joint procurements (Investment managers, custodians, advisory services)	3. Risk management options (e.g. equity protection strategies)	4. Joint Infrastructure Project	5. Return enhancing options (e.g. active engagement)	6. Asset pooling
In a nutshell	Negotiate with existing investment managers to reduce fees where commonality already in place.	Jointly procure for investment managers or other service providers.	Put in place additional risk reduction strategies – outside of the existing investment strategies in place.	Collective investment program for the Funds to invest in particular infrastructure projects.	Pro-active engagement with companies using shared principles and beliefs.	Commingling of assets from the Funds into one pool or vehicle for one asset class or total Fund assets.
Pros	Easy to implement	Greater savings than (1).	Focus on risk reduction.	Supports government agenda. Able to bid on assets currently unviable.	Limited downside on potential returns.	Future proofed. Opportunity for improved governance.
Cons	Little immediate savings or commonality No future proofing	No future proofing – if a Fund decides to subsequently sack an investment manager.	Complexity.	No guarantee of successful in bidding on assets. Assistance required to access opportunities.	Upside "engagement premium".	No guarantee of improved returns. Complex and time consuming.
Objective						
Reduce cost?	Yes	Yes	No	No	No	Some
Improve operational efficiencies?	No	No	No	No	No	Yes

Options	1. Aggregate fee arrangements	2. Joint procurements (Investment managers, custodians, advisory services)	3. Risk management options (e.g. equity protection strategies)	4. Joint Infrastructure Project	5. Return enhancing options (e.g. active engagement)	6. Asset pooling
Professionalise decision making / governance?	No	No	Yes	No	Yes	Yes
Potential to improve returns?	Marginally	Marginally	Yes for equity protection	Yes	Yes	Yes – but dependent upon governance & structure
Invest in new asset classes / opportunities	No	Potentially	Yes	Yes	No	Yes
Capitalising on the engagement premium	No	No	No	Yes	Yes	Yes
Reduce risk	No	No	Yes	No	Yes	Yes
Ability to move towards internal management	No	No	No	Yes	No	Yes
Simplicity	Yes	Yes	No	No	Yes	No

The point should be made that not all of the options 1-6 above are not mutually exclusive. Indeed, each of 1-5 could be carried out simultaneously and in the absence of asset pooling. Options 1 , 2 and 4 could fall within Option 6, and Options 3 and 5 could be carried out within / alongside Option 6.

SECTION 1: INTRODUCTION

This draft report is addressed to the Working Group of the Scottish LGPS Advisory Board and is intended to cover a range of issues relating to potential investment collaboration options.

The report considers whether there are areas in which the Scottish LGPS Funds could benefit from working collaboratively, with options ranging from joint working initiatives to full merger.

The backdrop facing the Scottish Funds is of course the pooling of LGPS Funds in England & Wales, but many of the associated themes and objectives are prevalent across large institutional investors globally. The OECD's Large Pension Fund Survey (2015) cited insourcing, co-investment, and expense reduction as a major theme amongst its survey participants. Specifically, insourcing was an ongoing trend and the survey showed that insourcing has included more active strategies and illiquid categories like private equity, infrastructure, and real estate.

We would suggest that the Scottish Funds have a real opportunity to consider their collective strengths and weaknesses, to think hard about the pros and cons of working together and to work towards a solution that is fit for purpose for Scotland and meets a defined set of objectives.

Of course, the Scottish Funds will want to take learnings from other large institutional investors, and we have made reference to examples of good practice throughout the report. There are upwards of 30 investors globally with assets in excess of $30bn so there are many case studies on which to draw; although the level of available data does differ greatly. The point we would stress, however, is that outcomes can only ever be judged versus objectives and further work may need to be conducted in due course to assess whether the examples we cite (and those that we don't) can be used as evidence for any chosen course of action.

Underlying a desire to collaborate is the belief that size brings with it economies of scale. Several studies have shown that economies of scale dominate the dispersion of costs across pension funds, (for example; Pension fund efficiency: the impact of scale, governance and plan design, Bikker and de Dreu, 2006) and indeed this makes perfect intuitive sense when considering the tiered fee scales that investment managers offer. There must also be an argument that the larger funds have access to a greater depth of resource which gives a greater chance of high quality outcomes.

Nonetheless, size is not the only determinant of cost and CEM Benchmarking produced a paper in 2006 that looked at costs adjusted for size, investment style and asset mix which concluded that the Canadian pension funds have the lowest costs on this basis; however further work would be needed to draw conclusions around how the Scottish Funds can learn from this.

However, it is also often cited that there is a tipping point to economies of scale; although it is, it seems, extremely difficult to place a number on this. Several studies have looked at US mutual fund data and tried to find a link between performance and size. There is an argument that this doesn't necessarily help a great deal when considering the multi-faceted approach to asset aggregation that the Scottish Funds are considering. However, it is more than likely that there will be certain areas where cost savings will be greater than others.

Cost reduction should not, we suggest, be the prime consideration when looking at collaborative working and we would recommend strongly that a combined set of objectives is agreed at outset, to ensure that only the most relevant options are explored.

SECTION 2: THE LGPS IN SCOTLAND

Our analysis covers the 16 Funds within the LGPS in Scotland, with the following key characteristics:

- Total assets of £34.6bn as at 31 March 2015 (£35.2bn at 31 March 2016).
- Average asset allocation of c66% equities, c13% bonds and c21% alternatives including property.
- Relatively low investment fees with average Fund investment fees of c0.38% p.a. (ranging from 0.09% to 0.81% p.a.), of which c.85% relates to investment manager fees and 15% relates to other investment costs (including oversight and governance).
- Investment returns on average of 1.2% over the last year (ranging from -2.0% to 6.5%)
- Investment returns on average of 8.1% p.a. over the last 5 years (ranging from 6.1% to 9.6%)
- The average added value from active management over the last year was 0.6% (ranging from -2.1 to 6.2%)
- The average added value from active management over the last 5 years was 0.7% p.a. (ranging from -0.8% p.a. to 2.6% p.a.).

* Please note the investment returns information only covers 15 of the 16 LGPS Funds based on the data provided by State Street Global Services.

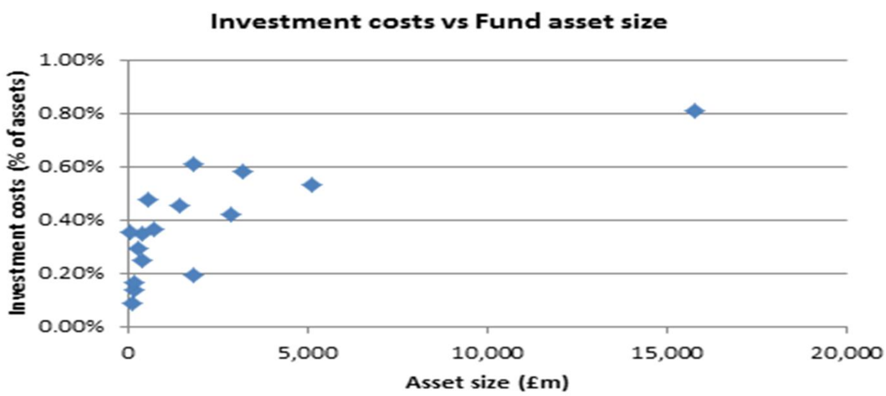
We have been provided with data from the 2014/15 accounts of each Fund and whilst some interesting themes can be drawn, the data represents a point in time and should not be taken as definitively representative. As noted below, performance related fees payable in any particular period have the potential to greatly impact results. It is also possible that different Funds account for costs in different ways, so any further work would need to bear that in mind (for example, for fund of funds alternatives, there are underlying manager fees and for all illiquid alternatives, different funds will be at different points in the cycle, so often the true cost is not known until the end point of investment).

We would therefore caution against any firm conclusions being drawn based upon this data alone, and, as we work through the analysis we have noted aspects which would be “missing” if you followed the numbers blindly.

Investment costs vs fund size

If the Funds were to look at pooling to reduce costs, then it may be helpful to see if those larger Funds at the moment do indeed incur lower investment manager costs.

The chart below shows the relationship between the Scottish LGPS Funds’ size and investment costs as outlined in each Fund’s accounts to 31 March 2015.



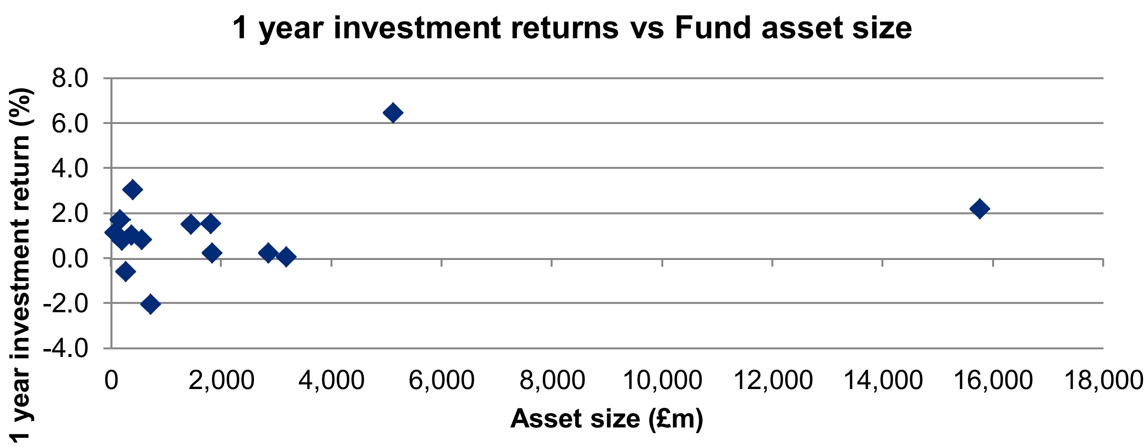
Source: LGPS Annual Report Data, 31 March 2015

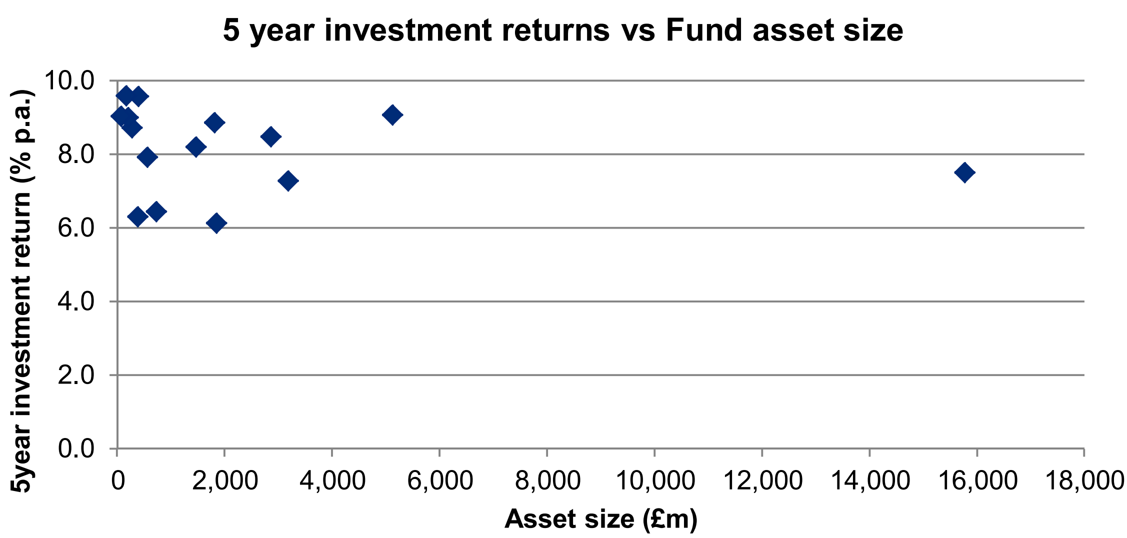
As can be shown in the chart, there is no relationship between Fund size and investment manager fees. In fact, one of the smallest Funds, Aberdeen Transport Fund, has the lowest fees proportionately. However, the chart above does not take account of the different Funds' investment strategies and nor does it account for the fact that performance fees in this particular period should skew results. In addition, those with a greater proportion of assets in alternatives (such as Strathclyde Pension Fund) will look "expensive" on the above chart.

Clearly it does however make intuitive sense that we would expect there to be some form or relationship between size and cost, and further work would need to be done to strip out the impact of investment strategy choices in particular.

Investment returns vs Fund size

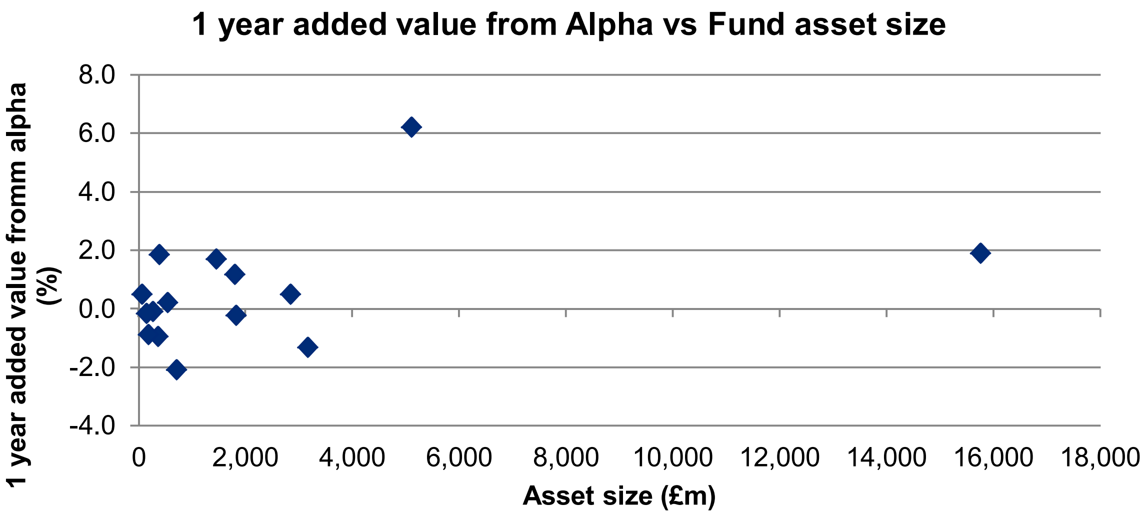
We have looked to consider whether there is any relationship between each Funds' asset size and investment returns. As shown in the charts over both the 1 year and 5 year period, there is nothing to suggest one unduly impacts another and that other factors are driving the differences.

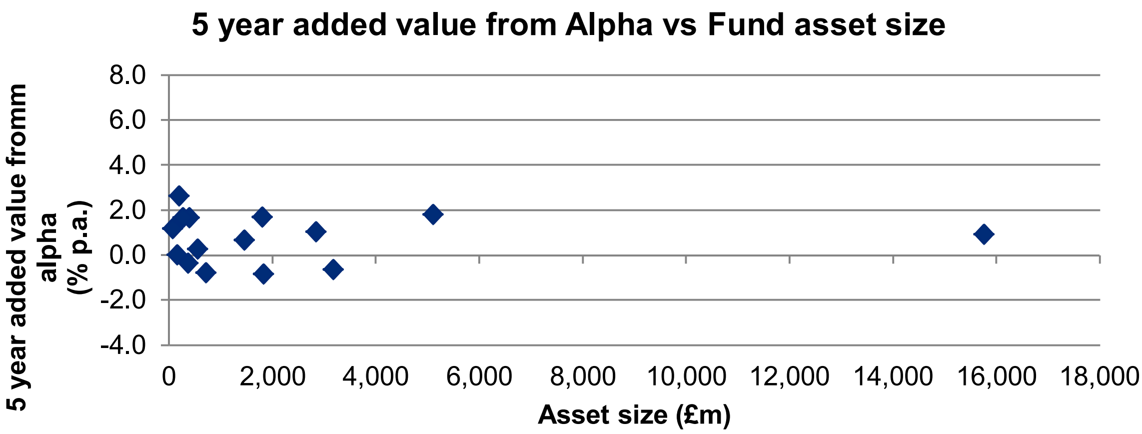




Added value from active management

Noting that each Funds' investment strategy which will be a key driver of overall investment returns, we have looked to establish whether larger Funds can generate additional alpha compared to the smaller Funds in the Scottish LGPS (i.e. ignoring any investment strategy impacts). As can be shown from the charts below, there is little to suggest that those larger funds are "better" at capturing alpha per se. This suggests other aspects again must be at play. What the charts don't show is the level of risk that is being taken to achieve the returns. For example the outlier on the 1 year chart is the Lothian Pension Fund, which achieved high equity returns though the use of low volatility equity management. It is also worth noting that many of the benchmarks used by Funds are not comparable. A Fund using a cash benchmark for private equity for example (which was observed) would report much higher "alpha" numbers than peers who were using a public equity benchmark for comparison.

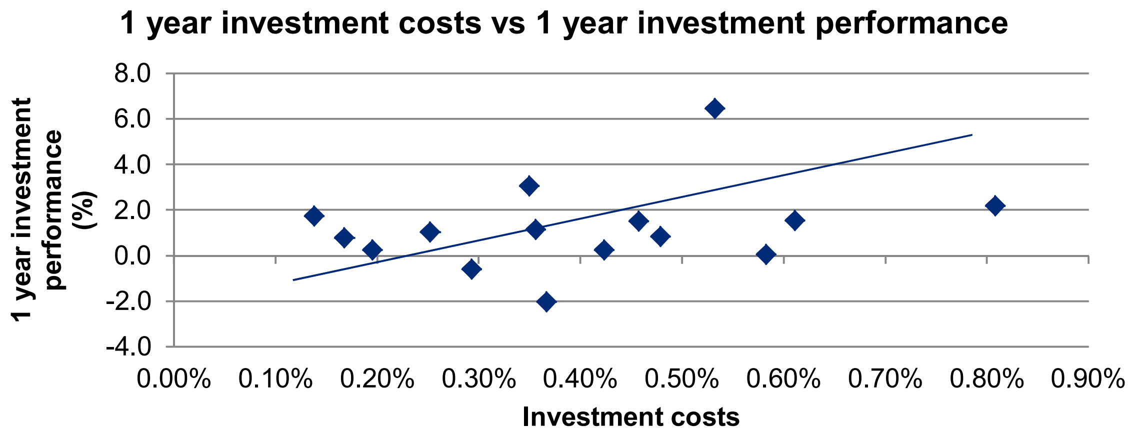


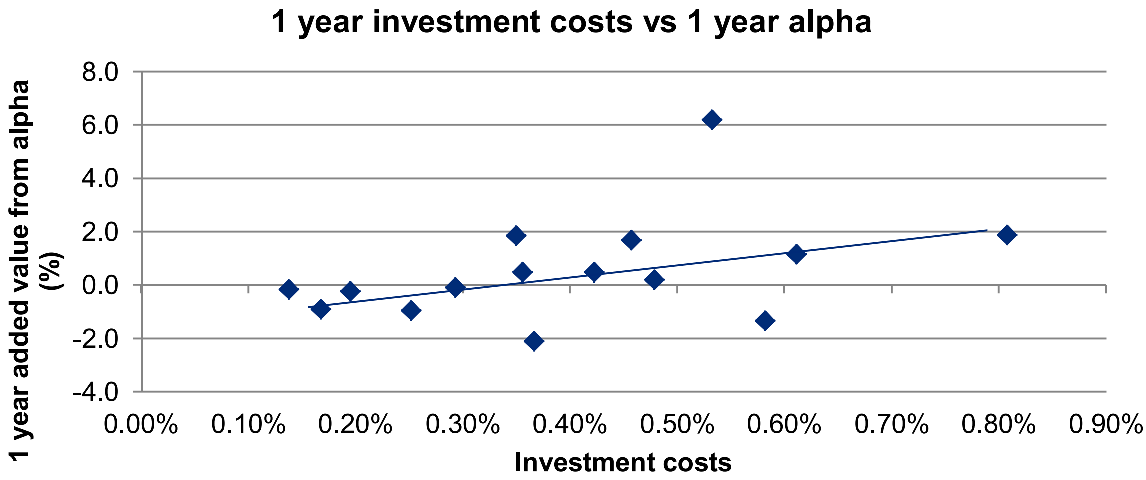


Investment costs vs performance

Much has been made of investment costs in the LGPS and the focus on reducing them makes intuitive sense. It should however be cautioned that simply focusing on cost is not enough, and this is supported by the following charts, which show that over the last year*, there is a degree of positive correlation between those funds which have paid higher investment fees and those which have also benefited from stronger investment performance or added value from active management (alpha). This is perhaps no surprise, and may be a result of any performance fees which will have been triggered as a result of strong outperformance; or that you may simply have to pay more to best in class managers.

*Note, we do not have investment cost information over 5 years to draw the same conclusion.



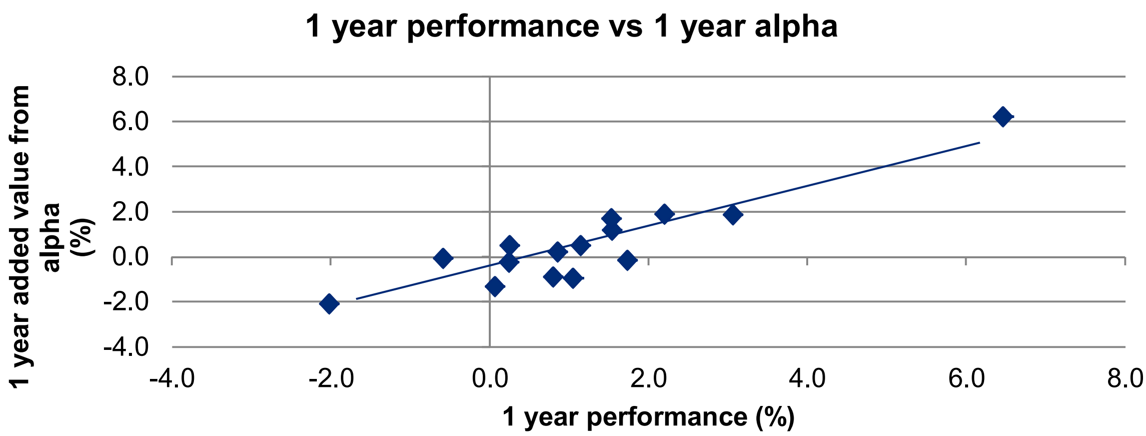


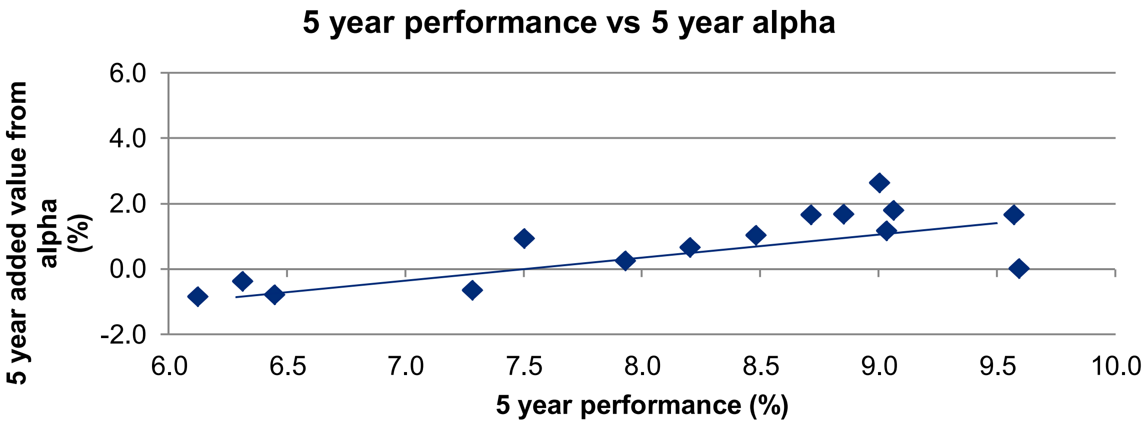
The importance of alpha

The previous developments in England & Wales surrounding a potential move to passive management sparked the debate about whether there is value in active management (alpha).

The charts below show the 1 and 5 year absolute investment returns achieved by each Fund vs each Funds' added value from active management. As can be seen from the chart below, there is a correlation between those Funds which generated higher returns and those which benefited from returns from active management.

This suggests that simply focusing on asset allocation through passive management would "give up" additional returns from active management. We would further suggest, should we move into a potential market environment where returns become harder to come by (following strong returns from equities since the financial crisis, and gilt yields at all-time lows), this relative proportion of the overall returns from active management could have an even greater role to play, albeit clearly there are no guarantees.





What does this tell us?

We should be mindful of not forming too strong a conclusion from a data set spanning (only) 15-16 Funds and covering just the last 1 and 5 years to 31 March 2016 in terms of returns.

However, we do believe there are some take away messages over the last 1 and 5 years to consider:

- There has been no clear link between Scottish LGPS Fund size and investment returns.
- Whilst there is no explicit link between overall Fund size and Fund cost within the Scottish LGPS Funds, once investment strategy differences are considered, we would expect fee savings can be leveraged from scale.
- A focus solely on costs has the potential to destroy value. The data highlighted that those Funds which benefited from higher returns could have been expected to pay higher fees.
- We expect active management to have a role to play in any collaboration.

Are there any other points to consider in relation to the Scottish Funds?

The obvious omission from the analysis above is whether increased use of internal management has an impact. However, given that we only have one reference point (i.e. the Lothian Fund), any data analysis would not be statistically insignificant. However, what is clear is that Lothian has produced strong returns and the extent to which internal management has contributed to this could be explored further.

What do the Scottish Funds do well?

We have a sense that the larger Scottish Funds with internal investment resource would compare well in terms of governance and professionalism relative to peers. There is also a commitment to Responsible Investment and Environmental, Social and Governance issues at some Funds that could be rolled out across Scotland to great effect (and we discuss this later in the report). Returning to the professionalism issue, we would suggest that it may be worthwhile conducting an independent review of governance / operations across the Funds with a view to building on key strengths. Other large investors in the UK have conducted similar reviews to great effect and it may be worth seeking advice or commentary from peers (Railpen is one example).

Turning to value add from investment returns as a measure of how well the Scottish Funds perform, the chart below considers the Scottish Funds' global equity managers over the last 5 years to 30 September 2016 **(net of fees).**

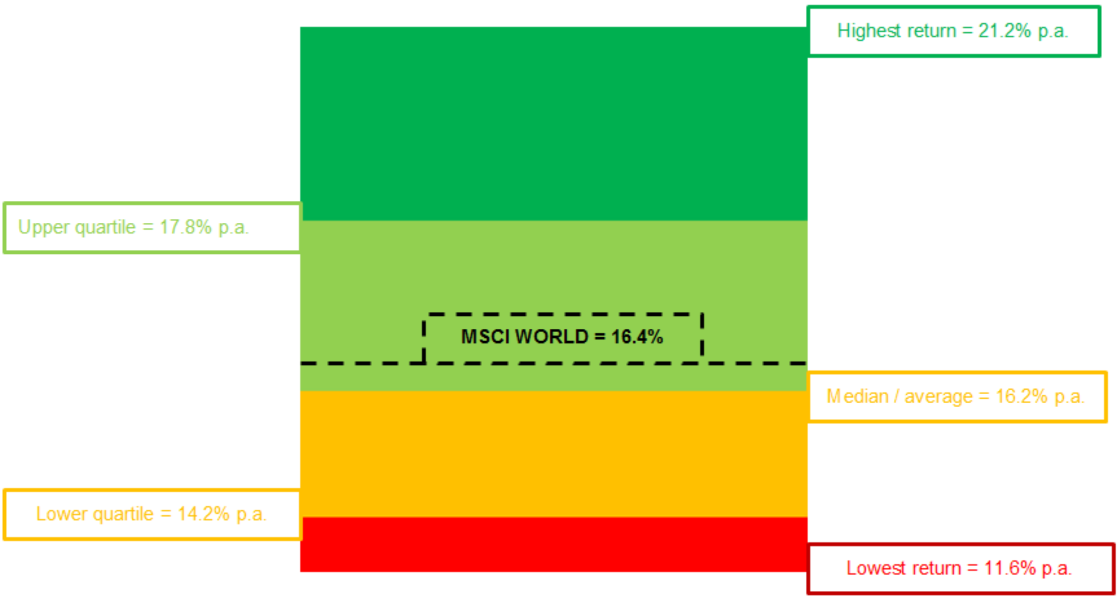
Based on the limitations of the data available, we have made the following assumptions:

- Data using 14 of the Scottish Funds' current active equity funds with a 5 year track record to 30 September 2016.
- Pooled fund data and fees have been used rather than Fund-specific performance which was not available.

- Data associated with the internally managed funds with Lothian have been excluded, but this could be easily referenced.

This highlights the following points:

- The "average" performance of the Scottish Funds' active global equity managers was 16.2% p.a. compared to a passive return (as defined by MSCI World) of 16.4% p.a. over the 5 years to 30 September 2016.
- The range of returns associated with global equities within the Scottish Funds is significant – the returns ranged from 11.6% p.a. to 21.2% p.a. This equates a difference of c£96,000 p.a. for every £1m p.a. invested.



From a collaboration perspective, this outlines the scope for active management to add significant value compared to the sole use of passive investment. However, it also shows that aggregating active managers across Funds can diversify away any potential additional return from alpha.

We note that other asset classes that could be explored would be active fixed income or alternatives, but existing mandates are wide ranging and harder to compare against any passive equivalent. UK equities could also be considered but we note there are only a limited number of active UK equity managers in place within the Scottish Funds which makes conclusions harder to draw from.

A final point – implementation options

The tables below give an illustration of the potential differences in fees and return outcomes across a range of different implementation routes for equities as an example of a traditional, listed asset class and private equity as an example of an unlisted asset class. The idea is to set some context in terms of why particular Funds might chose different implementation options and the impact those options can have on fees and returns:

Management Option	Fees impact ^	Return impact	Comment / question
Passive equity	Average fees 1-10 bps Minimal reductions for larger mandates given LGPS fee negotiations.	Strong expectation of market returns	Does low governance mean more likely to be chosen by smaller funds?
Smart Beta	Average fees 5-20 bps Minimal reductions for larger mandates given LGPS fee negotiations.	Range of academic (and anecdotal) evidence that persistent factor biases add value over market return (Assuming that one doesn't invest across all factors and diversify any benefit away).	Similarly to the above, does a smart beta approach have appeal versus active factor based investing for smaller funds?
Active Management (benchmark aware)	Median fee c.50bps.	Median global equity manager outperformed by 0.5% p.a. over 10 years to 30 September 2016 *	The most likely option for smaller funds given ability to appoint a small number of managers? Added value will depend heavily on the resource / skill to enable successful active manager selection. Top quartile managers, outperforming by 1.5% plus over the ten year period.
Active Management (benchmark aware, internally managed)	Cost not easily defined. Within Scotland (Lothian being the example), expenses for equity management are 2bps	Potential to be higher than traditional active (assuming all else is equal) due to lower fees	Prohibitive for singular small funds
Active Management (high conviction)	Median fee c.75bps	Would expect longer term, high conviction managers to produce stronger long term returns, albeit with more short term volatility	Smaller funds less likely to opt for a "higher risk" manager due to lack of diversification (ie they could probably only reasonably

		relative to market.	appoint one active equity manager)
Private equity direct funds	Fees range from 75 to 200 bps plus a performance fee.	Expectation of returns in excess of traditional equities in the range of 3-5%p.a. over the long term	Funds will look to build diversified portfolios so will likely make a range of small allocations; as a result fee reductions will only tend to occur when a number of commitments have been with the same manager. For larger investors with the right governance structure, lower fees can be achieved via co-investments
Private equity fund of funds	Fees range from 75 to 150 bps plus performance fee plus the underlying manager fees.	Returns can be lower than a more focused portfolio of direct funds, but also less likely to lose value.	A lower governance option for smaller funds, but commensurately more expensive

^ Fee data is taken from a range of sources (market knowledge in respect of LGPS passive fees and Mercer fee survey in respect of active fees)

*Data taken from Mercer global equity universe

It is worth expanding further on the private equity commentary made in the table above. Fees paid for the management of alternative assets will account for a large proportion of spend by the Funds who invest in the asset class and further work could be carried out to determine the precise amounts (currently the data provided gives fee scales as opposed to fees incurred).

From the data we were provided with, it appears that around 80% of the investments in private equity was via fund of funds. If we assume that collaboration lead to both greater internal/ professional resource being available, then the double layering of fees that comes with fund of funds could be reduced.

Section 5 of this report continues this theme by looking at the related issue of infrastructure investment.

SECTION 3: OBJECTIVES

The key question to ask is what the Scottish LGPS Funds actually want to achieve through collaboration and over what timescale? It is likely that there may be several (often mutually exclusive) objectives, but it will be important to spend sufficient time considering the key objectives as they will certainly set the direction of travel and eventual outcomes.

We work through a number of potential objectives below.

To reduce costs?

The LGPS in Scotland already operates at a reasonably low cost base. Section 2 looked primarily at investment costs, but overall costs when aggregated across the Funds sit at £227m for the 2014/15 year, which at a headline level compare favourably to large institutional investors of similar aggregate size.

The largest cost is investment manager fees, and even small reductions can have a significant impact collectively. Every one basis point (0.01%) reduction in fees will save the LGPS in Scotland £3.5million per annum, all else being equal.

Some work has already been done across the Funds to cut manager costs; for example, negotiating reduced manager fees across passive (and other mandates) has been possible, given the general direction of travel in relation to collaboration in LGPS.

The key question of course is whether asset pooling or any form of aggregation of Funds is necessary to reduce manager (and other) costs further. We discuss this further later, but in summary, fee savings could be gained via external managers without pooling, but informal collectives and the associated fee reductions may not be long lasting for a range of reasons. Fee savings could, however, be made via increased use of internal management across liquid assets; but there would need to be a conversation around ensuring appropriate levels of quality versus the wider market.

There are always ways of reducing headline costs, but free lunches are rare. For example, there was a chain of thought within the initial stages of the LGPS cost savings debate in England and Wales that a wholesale move to passive would be a worthwhile option to save costs. Of course it would reduce costs, but one has to balance those cost savings against the opportunity costs of potential additional returns from active management and also the risks (depending on your perspective of course) of investing without question in every stock in the market. (To be clear, passive investing obviously has its place, but its use should be a choice and not the result of a cost cutting exercise without considering the potential disadvantages.)

As noted already, costs across Scotland are already low and to reduce fees significantly would inevitably in our view have consequences which would need to be appreciated, e.g. a strategic decision to increase the level of passive investment or a conscious decision to price all but the largest fund management houses out of pitching for business by focusing procurements very heavily on fees.

> We suggest that cost reduction should be a benefit of, not a driver of collaboration; partly on the grounds that costs are already low across the Funds and also because of a more philosophical concern that too much focus on cost can stifle innovation.

To increase operational efficiency (and therefore achieve cost savings)?

There is little quantitative data or research on the concept of cost leakages; nonetheless we raise it for discussion and think it is vitally important.

There will inevitably be cost leakages within most pension funds, but we would assert that they often fall into the “unknown unknown” category. Examples might include:

- Was an asset transition delayed due to workloads?
- Was a decision delayed because a Committee wasn’t quorate?
- Are FX transactions monitored for efficiency?
- Are all operational risks known and monitored?

> The question to ask is whether a large, professionally run asset pool could capitalise on an extra return premium from running a tight ship on an operational level. We would propose that it could; although we appreciate that putting a precise figure on that is difficult without a large data mining and audit across the past history of the Scottish Funds and their asset base.

However, for context, in the same way that one basis point of manager fee reductions would save £3.5m p.a., so too would any operational improvements; not to mention the reduced potential for a loss in assets if risk control functions are tightened .

To professionalise decision making / to improve governance

The local accountability of the LGPS is often seen as a key strength and no one would want to criticise the great number of dedicated Committee / Panel members who spend a great deal of time making the best decisions possible for their Funds.

However, there is a widely held view that better governance does produce better outcomes over the long-term, and few Funds could genuinely say that there is no room for improvement. There is some academic research that suggests the existence of a good governance premium; ranging from 0.05% p.a. (Clarke, 2007) to 1-3% p.a. (Ambachtsheer 2007, Watson Wyatt 2006).

If there is a belief that improvements in internal governance could improve performance, then thought needs to be given as to what better governance looks like, how it would differ under all the structures under consideration and how the effectiveness of any changes would be assessed.

Some of the large peer funds in the UK have gone through wide ranging reviews of their governance structures, some of which has resulted in significant changes to their operations. Issues covered included where decision making lies and although a potentially thorny issue, if changes to governance are to be significant enough to enhance returns, then tweaks at the edges may not be enough.

We are not necessarily suggesting that the slate is wiped completely clean and local accountability is pushed aside in favour of centralisation; rather thought should be given to who is best placed to make which decisions and to think hard about where local input can add most value. If it is decided that local accountability is non- negotiable and must sit at the heart of decision making, then we would urge that at least some thought is given to measures such fixed terms of office on pension fund committees to avoid the churn that some Funds in the LGPS face all too often. It is also worth noting that decisions made locally can be made by both Committees and also by Officers / Investment Professionals at each Fund, and any review of governance should explore the balance of decision making within the locality in that sense too.

We suggest that internal governance considerations should be a priority when considering any collaborative initiatives. Of real benefit across several of the LGPS pools in England & Wales was time spent at the outset on determining a shared set of beliefs and principles, many of which will run right through the resultant governance structures. Governance should drive outcomes; it should not be something that is made to fit around a predetermined solution or structure.

To increase returns?

We propose that there are two ways to approach the concept of increasing return potential.

- Doing things "better"
- Doing things we don't do now

For the avoidance of doubt, we refer here to net of fees returns (whilst noting that reducing costs can lead to better net of fees returns).

Doing things "better"

Not only are there are a plethora of considerations and options here, there is also not a single right answer or silver bullet. We would however suggest that in order to succeed in the short term, only a small focused number of areas are considered in the first instance.

The obvious place to start is Funds' choices of investment managers, and it may be worth performing additional work to see whether there are particular areas in which the Funds excel or otherwise; with a view to forming a priority order of areas to focus on. For example, we might find that the smaller Funds really struggle to find good active bond managers and so this could be the focus for a collective pool utilising a larger collective resource.

Doing things we don't do now

There are two elements in particular that we think are worth considering here:

- Increasing the capacity to invest further in asset classes currently only utilised by a few
- Capitalising on an Engagement Premium

Increasing the capacity to invest further in asset classes currently only utilised by a few

The average allocation to illiquid alternative assets (excluding property) is approximately 8%, which we propose is low given the long term, open nature of the Funds. It is also dominated by private equity. If there is a belief in the liquidity premium, an expectation that long term illiquid assets can provide diversity of return plus a potential inflation linkage, and a consensus view that more significant fee savings can come via scale in these type of assets, then a collaborative initiative should be explored. We have provided a case study, using infrastructure as an example in Section 5

There may also be an opportunity to think about developing new strategies to benefit the Funds as they mature such as portfolios specifically designed to meet cash flow requirements.

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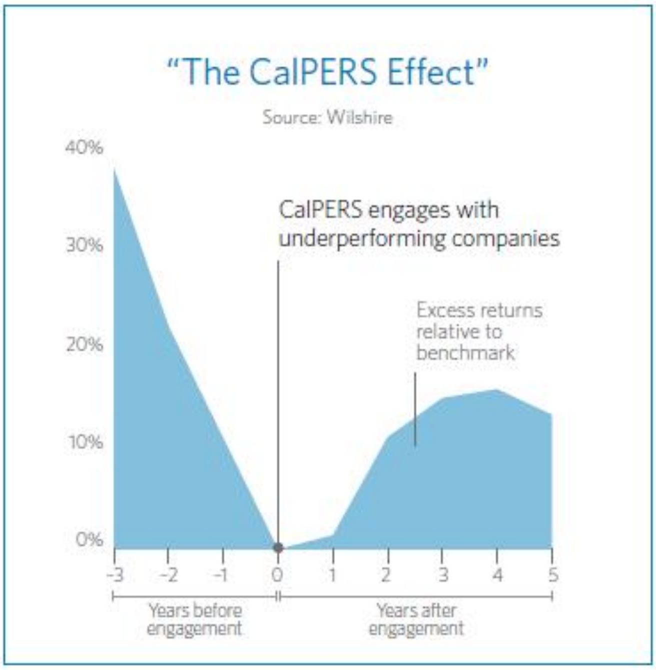
Capitalising on an Engagement Premium

Moving to the theme of stewardship, recent studies by London Business School and Harvard Law School have found benefits in relation to engagement that are worth pursuing. This includes that engagement has at worst no downside on returns, and at best leads to an uplift of 2-4 per cent in returns in the year following engagement activity.

The premise is that proactive engagement helps underperforming companies find their way again, with sustained share price gains and operating performance improvements. Well-known devotees of active engagement – CalPERS in the US and Hermes in the UK – have shown similar effects, i.e. persistent, outsized returns in the wake of targeted engagement.

An example of company engagement is the approach adopted by CalPERS, i.e. deliberately choosing companies with a depressed share price and evidence of poor governance arrangements as targets for engagement. Engagement that leads to improvements in governance should, in theory, unlock value – the so called “CalPERS effect” (see image below):



Some investors refer to engagement and voting as “low premium insurance”; the ideas of doing that little bit extra in every area you can control, so that overall you edge it over the competition.

If we applied this perspective to investment strategy implementation, then failing to take engagement and its long-term benefits seriously is like throwing money away .

Many of the LGPS Funds in Scotland are members of the LAPFF and so do collaborate on engagement issues. However, perhaps this could be taken one step further if the Funds could define a joint set of aims, beliefs and actions and integrated those into their investment mandates.

This may involve the appointment of specialist managers with a view to adding return via engagement or stewardship, or it may be in relation to building portfolios with particular themes to address long term issues such as climate change. Particularly for the smaller of the funds, these types of initiatives may not be possible singularly and could add real value.

Engagement can add value, and scale can increase the impact. There is a real opportunity for the Scottish Funds to collaborate on shared beliefs and to implement an active approach to engagement with the aim of enhancing returns.

To reduce risk?

Risk is multi-faceted and will have different meanings to different stakeholders. However, there will be key risks facing all the Funds and a collective effort to reduce risk and to avoid loss of capital could be worthy of consideration.

Options might range from full scale asset pooling (to reduce operational and governance risks, to professionalise decision making and to provide access to a more diverse range of asset classes), to consideration of whether joint initiatives to facilitate risk mitigation are possible.

We covered operational and governance risks above and will discuss them further later in the report when looking at structures.

However, would it be worth looking at the Fund's strategic asset allocation and seeing whether there are any obvious opportunities to reduce risk collectively?

For example, the average allocation to equities across the Funds is 65%, so a 10% fall in the equity market would result in a loss of £2.25bn. However, the Funds legitimately take that risk in the expectation of the long term returns that are needed to recover funding levels and keep contributions affordable.

Should the Funds collectively consider risk mitigation options to avoid the impact of a fall in the equity market. ***For example, could a collective equity downside protection strategy be made available to all Funds, on the grounds that protecting against a multi-billion pound loss might be more valuable that saving a smaller number of millions on manager fees? Similar ideas around inflation or interest rate protection could also be explored.***

There are many questions to ask here – not least of which in relation to whether the collective Funds are actually too large to easily implement certain risk management solutions, not to mention the philosophical objectives and the governance issues; but the point is that there may be other ways of approaching the collaboration issue rather than just costs and structures.

To move towards internal management of assets

On the basis of considering the competitive advantages that exist across the Scottish Funds, one obvious question is whether the low cost internal active investment management used by the Lothian Pension Fund should be explored further and whether an increase in internally managed assets becomes an objective. Recent return data suggests that this is certainly worthy of consideration, but there would need to be an independent piece of research commissioned on this; both looking at whether the Lothian arrangements could be leveraged, whether any improvements are needed and also considering fully the pros and cons. Initial views from the Lothian Fund are that the global equity management carried out by the internal team there is indeed scalable, but it is noted that there are several areas to explore in relation to governance, fund structures and legal issues.

In 2012, MacIntosh and Scheibelhut looked at how 19 major pension funds (globally) structured themselves. They found a correlation between size and internal management, and further between internal management and returns. Specifically, they found that for every 10% increase in internal management, there was an increase of 3.6 basis points in net value added; this increase was driven largely by the lower costs attributed to internal management and of course relies on the ability to recruit a high quality internal team. The study also looked at compensation, diversity of boards and strategic priorities, as well as considering the average numbers of staff involved in back office operations and so may be a useful study to look at in more depth as any collaboration project progresses.

The OECD's Large Pension Fund Survey (2015) cited insourcing, co-investment, and expense reduction as a major theme amongst its survey participants. Specifically, insourcing was an ongoing trend and the survey showed that insourcing has included more active strategies and illiquid categories like private equity, infrastructure, and real estate.

The report from the OECD concludes that "insourcing, while cost reductive, does require significant investment in technology, human resources, and operational support in order to implement increasingly complex investment strategies. The competition for top investment talent is a major consideration – the largest funds with resources to commit to insourcing and the ability to hire talented professionals have been best positioned to benefit from this trend, but acquiring investment talent may be a challenge going forward. Appropriate governance structures must also be in place in order to effectively manage in-house investments."

Summary thoughts on objectives

The aim of this section was to provide some food for thought in terms of how different objectives can lead to very different outcomes. Necessarily, we have also provided some examples of possible areas of focus if particular objectives are prioritised.

We now move to look specifically at some of the options being considered by the Working Group and look to refer back to some of the ideas raised in this section.

SECTION 4: STRUCTURE OPTIONS

Review of Options for Structure

Of the potential structure options being considered by the Working Group, we considered the following as having relevance to investment issues:

1. Retain the current number of funds but with closer collaboration (examples identified).
2. One or more common investment pools.
3. Merge the funds into one or more new funds.

From an investment perspective, options B and C are largely similar; at least at this initial stage, in the sense that the ultimate result is some form of asset pooling. The main difference between an asset pool and a merged Fund is (we assume) that asset pooling would mean that individual LGPS Funds retain asset allocation decision making, but in either case we would suggest that there is a governance benefit. In the case of asset pooling, the removal of manager decisions from individual Funds would arguably leave more time to focus on asset allocation, which ought to be a positive, and in the case of a merged Fund, one might assume that there would be access to a greater depth of resource and advice in relation to asset allocation.

Clearly B and C are very different from a governance and also a political perspective, but purely from the asset side of the equation, the concepts are similar.

A - RETAIN THE CURRENT NUMBER OF FUNDS BUT WITH CLOSER COLLABORATION.

We have deliberately focused on investment collaboration options which are likely to have a meaningful impact, with the objective of either achieving:

- Cost savings
- Risk Reduction
- Increase Returns

If the objective is cost savings – consider aggregation of fee arrangements and / or joint procurements.

Aggregation of fee arrangements

Having reviewed the use of investment managers across the Funds, there is a degree of commonality that could lead to fee savings if investment managers are willing to treat several Funds as "one investor".

We have seen this type of arrangement become more common within England and Wales as a "pre pooling" initiative; albeit there are some concessions to be made in relation to the level of client servicing (so joint reporting meetings may be required across Funds to access the savings).

There is one manager in particular who covers £5.5 billion of assets for the Funds, albeit across a range of asset classes, and another manager running £700 million in the same strategy for four Funds, so there is the potential for savings, but it is unlikely to move the needle to a great enough degree.

Collaborating in this way may not be a long term solution and it is solely cost focused – there is no enforced longevity and so fee savings will only persist for as long as each individual Fund retains the managers involved. However, it could be an initial step to demonstrate the cost savings achievable through collaborative working and every basis point saved across the funds equates to £3.5 million of savings.

Joint Procurements

Before embarking down the path of joint procurements, we suggest the following questions are addressed.

Specifically:

- **are joint procurements seen as a cost lowering exercise?**

or

- **are they a way of accessing higher quality or innovative services that some of the Funds may not have access to singularly?**

Advisory Services

Platforms for the procurement of **pension fund advisory services** for the LGPS already exist; most notably the National Framework Agreements. Each Fund could use the Framework singularly, or if there is a view that all Funds would benefit from procuring a single Actuary or Investment Consultant for example then a joint procurement could be carried out. In this case a potential lowering of costs versus the downsides of concentration of advisory views would need to be considered.

However, on the grounds that advisory fees are not the most significant line item within most Funds' accounts, we would suggest that this may not be a priority. Specifically, from the data provided, actuarial fees across the Funds in 2014/15 were c£1million, compared to c£185million of investment manager fees.

Custodians

There is also the potential for reductions in custody costs via joint procurement; but again, we note that custody costs across the Funds in 2014/15 sat at under £2 million, so this may not be the highest priority. Nonetheless, there is evidence that the National Framework Agreement for Custody Services has reduced fees significantly, so this may be a "quick win" worth considering, albeit one that may be short lived if full scale asset pooling is the chosen option.

Custody costs are difficult to compare given that all Funds will have different specifications. It is possible that although fee savings would inevitably result given the competitive space that custody provision for large investors has become, it **may** also be the case that some Funds could benefit from a higher level of service than can come with scale.

Investment Managers

There is a greater potential for more significant savings via the joint procurement of investment manager contracts.

Investment manager costs clearly reduce with scale. However, there are many reasons why the Funds would not want to consider procuring, for example, a single active global equity manager (multi-faceted concentration risk for one, plus the fact that such large scale exercises are likely to preclude smaller investment management firms).

It isn't impossible to procure jointly, and it may be that this type of venture has intuitive appeal in areas such as infrastructure, but there are significant barriers to making joint (often subjective) decisions in an informal environment, and on the grounds that any party is free to leave the resultant manager arrangement whenever they see fit, the long lasting nature of any fee savings may well be finite. We return to collective manager appointments via the concept of asset pooling later in this report.

What is worthy of consideration is a **joint passive manager procurement**. On the grounds that Funds tend to have long lasting relationships with passive managers, the market is small and there are arguably not the same concerns over concentration risk, we feel far more comfortable with this type of joint exercise. There have been several joint procurements within the LGPS in England and Wales that have resulted in significant fee savings. Indeed, we understand that several Scottish LGPS Funds have negotiated discounts over recent months, albeit these savings are not reflected in the data used for this report. Nonetheless, a single basis point fee reduction within passive global equities (£8.7 billion) would save £870,000 across the Scottish LGPS as a whole.

> Wholesale joint procurement of managers in an informal sense may not be a long lasting solution. However, there is merit in considering the joint procurement of a single passive manager across the Scottish LGPS given the longevity that these relationships tend to exhibit.

If the objective is to reduce risk, consider joint initiatives

This concept was discussed in the previous section, but in summary we propose that jointly constructing a risk management solution (e.g. equity downside protection strategy) may actually be significantly more valuable than a cost reduction objective.

If the objective is to enhance returns, consider joint initiatives

There are some benefits to closer collaboration that cannot be immediately identified in cost terms, but may be worth pursuing with the expectation of better longer term returns.

In a low return environment (which would be our prediction, certainly over the medium term), marginal gains matter in the pursuit of long term returns, and we would propose that joint initiatives in relation to long term investing, engagement or stewardship are worthy of consideration with this in mind.

There are numerous examples of where collaboration on issues of responsible investment and ESG issues makes a difference; for example, the Aiming for A Initiative and the 30% Club.

More detail on this issue was provided in the previous section.

Engagement can add value, and scale can increase the impact. There is a real opportunity for the Scottish Funds to collaborate on shared beliefs and to implement an active approach to engagement with the aim of enhancing returns.

B - COMMON INVESTMENT POOLS (ASSET POOLING)

In technical terms, asset pooling is the commingling of assets from multiple investors into one pool or vehicle. It could refer to a single asset class or total Fund assets.

We have provided more detail on the technical / operational / regulatory considerations in relation to asset pooling in Appendix A. Within this section we consider the potential challenges and benefits of pooling assets.

Main Challenges in Asset Pooling

A significant challenge in successfully pooling assets is achieving scale to cover set-up costs, ongoing operating expenses and governance costs. Scale is also required to make the structures efficient and have a reasonable expense ratio on an ongoing basis. Another large challenge is collaborating with local fiduciaries and internal stakeholders to obtain approvals and support for the asset solution. A smaller challenge is to align the investments and asset classes to the right vehicle to ensure smooth operations and quality accounting; however, if scale cannot be achieved running multiple funds and structures become expensive.

Potential Benefits in Asset Pooling

In our experience, pension funds pool assets to realise the following benefits:

- Ability to leverage larger plan scale to smaller plans reducing fees and operating costs
- Better diversification and investment opportunity set for smaller funds
- Investment decisions taken by people with experience and expertise
- Greater control over investment decisions
- Better risk management over investments and liabilities
- Faster investment decision-making and greater ability to respond to dynamic markets across all investor plans in a short time frame
- Improved transparency and governance
- Reduced governance resource demands at a local level
- Reduced administrative, legal and transition costs associated with changing managers or portfolio construction

We would suggest that the Scottish Funds need to consider whether the initiatives / suggestions raised earlier in this section (i.e. joint working initiatives) are “sufficient” in terms of added value relative to the status quo.

If not, and if there is a desire to recognise a wider range of benefits, then asset pooling should be considered. We propose that done properly, asset pooling provides a level of flexibility to benefit from a great many, if not all the benefits listed above.

A full study would be required in order to quantify the monetary benefits of asset pooling and to put together a business case. This would include a consideration of whether single asset class pools were the pro rata optimum solution or whether full benefits come from pooling across Funds in their entirety. That said, any analysis would be heavily assumption based, so it will likely be the case that a philosophical acceptance of or alignment to the benefits noted above is the driving factor. We have conducted an initial analysis of various pooling structures in Appendix A, looking at a single asset class. We deliberately picked an asset class where the manager fee savings would be lower (i.e. global equities versus an illiquid alternative asset) to show that cost savings could be significant even after accounting for the implementation of a pooling vehicle for a single asset class.

Of course many of the benefits listed above are not easy to align a direct monetary benefit to, so there would need to be a belief that the benefits listed above could help achieve some or all of the objectives listed in Section 3 before proceeding with further work.

C – MERGE THE FUNDS INTO ONE OR MORE NEW FUNDS

As noted earlier, from an investment perspective a Fund merger and asset pooling are very similar and so we do not conduct any additional analysis here. Of course, we accept that a full merger is much more complex and much wider than just the investment aspects. However, there are a number of points to note:

1. We have assumed when considering the concept of asset pooling above, that each Fund would retain asset allocation decision making; this becomes irrelevant when considering a merger on the basis that there would be one Fund and therefore one set of decision makers. However, when we mentioned in Section 3 that some large investors had conducted in depth governance reviews, one important area that was considered was asset allocation and how much was conducted within their pool and how much was conducted at Fund level.

   If there was a view that there is a governance premium to be had from aggregating the asset allocation decision across the Funds, then it arguably moves the conversation (from an investment perspective) either towards full merger, or towards a pooling structure where all but the highest level asset allocation decisions are made at pool level.

2. One of the reasons for considering a regulated structure if a pooling arrangement is implemented is to avoid straying into the realms of operating as an unauthorised collective scheme (See Appendix for more detail). If a full merger took place and there was one Fund managing its own assets (rather than a pool managing assets for several entities), then the need for a regulated structure would be diminished. (Notwithstanding this we would still likely recommend a regulated structure for a range of reasons such as risk control, operational effectiveness, future proofing).

SECTION 5: A CASE STUDY – INFRASTRUCTURE

Much of what we will cover in this section arguably applies equally to several illiquid asset classes such as private equity and property, however given the focus on infrastructure throughout the collaboration debate, we felt it appropriate to us this asset class as a case study.

As a reminder, we make the link to the objective of enhancing returns by increasing the capacity to invest further in asset classes currently only utilised by a few.

Current investment in infrastructure accounts for just 1.5% of the total assets across the Funds and the average fees paid are (broadly) as follows:

- Direct Funds 1.5% p.a. plus 20% carried interest over a hurdle
- Fund of Funds 0.5% p.a. plus 5% carried interest plus underlying fund fees
- Co-investments 0.5% p.a.

There are many reasons why investing in infrastructure has intuitive appeal to a long term investor such as an LGPS Fund; but in short an expectation of broadly inflation linked returns, boosted by an illiquidity premium is key. However, there are many different types of infrastructure catering to differing risk appetites and return requirements and inevitably when discussing infrastructure in the context of asset pooling for the LGPS, there has been a clamour to focus on local opportunities (of which realistically there tend to be few).

We have made an assumption that Funds in Scotland (along with pension funds across the UK in general) have a low allocation to infrastructure primarily because of the costs and additional resourcing involved being prohibitive for smaller Funds, but also because of its comparative newness as an asset class for institutional investment in the UK.

Typically smaller Funds would tend to use fund of fund arrangements to access asset classes such as private equity and infrastructure. There are many advantages to these type of arrangement but they are more expensive and the assertion is that as scale increases, fund of funds become unnecessary.

One benefit of scale might be that a Fund or Pool has access to more resource to manage the rolling program that is generally recommended with illiquid assets. With this extra resource comes the chance to be more selective or bespoke in terms of fund choice, but generally we might accept that the degree of risk increases because it is likely that portfolios of funds would be more concentrated.

Scale can bring fee discounts (which are very much fund specific but can fall away quickly when investments of $50m - $100m are committed), input on fund terms and co-investment rights. However, scale does not guarantee that all those options will be exercised. An investor might have a large chequebook, but if they don't have the governance or resource to move very quickly on co-investment deals with tight turnaround times, then some of those benefits of scale can be lost.

If the Scottish Funds decided collectively to commit 5% of assets (built up over time) to infrastructure, then the portfolio size would be in the region of £2 billion.

Turning for a second to the debate (or pressure potentially) in relation to local infrastructure investment, it may be worthwhile conducting a desk top exercise with a credible infrastructure manager to put some context around the type of portfolio that could be constructed if the focus was on individual, perhaps local, assets rather than investing in single funds.

What we would suggest £2 billion provides is the necessary scale to have a rolling program of different types of funds and co-investments, managed / implemented by either an internal team or a manager in an advisory capacity. Regardless, a key consideration would be the governance structure required to act quickly on opportunities as they arose. There is also an issue over access to best in class funds. A £2 billion allocation may afford internal resource but it may not afford access to the most highly sought after funds (ie the ones that often don't need to come to market to fund raise), so it may well be worth working with a partner manager in order that a more proactive approach can be implemented.

What examples of collaborative infrastructure investing are there to learn from?

In the UK there is the Pensions Infrastructure Platform; although it is too early to look at results, there may be learnings from the work that has gone into initial set up.

In Australia (although global in location) there is the oft cited example of IFM, owned by 29 pension fund globally, investing in a range of private market assets with a long term, sustainability led objectives.

Across the US and Canada there are a number of large scale pension fund investors who are well known for infrastructure investing.

The problem is however that there is little comparable data available, and in any case comparing outcomes without knowing original objectives may be of limited benefit. This may however be an area worthy of further investigating when deciding how / if the Scottish Funds wish to collaborate in this area. (For example, it may be the case that some of the large funds, several of whom have offices in the UK, would be prepared to share learnings with the Working Group).

One common theme however is the existence of well resourced, professional, internal teams who operate in a governance structure that can facilitate the objectives of their programme. We also sometimes see themed investing; so for example a Scottish Infrastructure portfolio (or indeed any type of private markets portfolio) could be constructed so as to fulfil an aim to promote long term sustainability themes such as clean technologies or renewable energy.

What type of options exist for the Scottish Funds?

There first needs to be an agreement on the aims of any collective investment program; level of return, risk, any themes / biases, degree of outsourcing versus size of internal team. There also needs to be agreement on the extent to which any competitive advantages there may be of investing locally are to be investigated and exploited. Allied to this, the Scottish Funds may want to consider whether they are – perhaps because of existing resource the large Funds – in prime position to take a lead across the whole of England & Wales if a cohesive strategy can be agreed.

Would all Funds benefit?

Yes. The largest investor in infrastructure at present is Lothian with a c.£250m allocation. Given the comments made earlier about the size of discounts becoming more significant once commitments head towards $100m, we would expect all Funds to benefit from scaling of costs. In addition, and perhaps more importantly, assuming that due consideration is given to the objectives and aims of any program, all Funds have the opportunity to benefit from having a more bespoke portfolio attuned to specific aims.

Next steps

We recommend an investigation into the potential requirements of and appetites for an infrastructure program across the Funds is carried out. The Funds may then wish to carry out some desk top analysis with an infrastructure manager or advisor to explore the art of the possible, both in terms of investing directly into (possibly local) infrastructure and setting up a rolling fund and co-investment program.

SECTION 6 - CONCLUSIONS

This report has raised a number of issues in relation to collaborative investing and we appreciate that this is only one part of the equation being considered by the Working Group. Nonetheless, in order to decide whether any of the options raised are viable, the answer to the question around the objectives of collaboration needs to be agreed. Section 3 of this report has looked at a range of objectives and suggested areas to consider.

Done sensibly, long term costs savings (after implementation costs) are inevitable if assets are pooled, but we believe strongly that there are many other benefits that scale and collaboration can bring. The issue of governance and engagement is particularly worth exploring from the perspective of enhancing returns. We would also suggest that risk management initiatives could also bring significant benefits. Both of these types of avenue could be explored (possibly to differing degrees) with or without asset pooling. It is also likely that greater scale brings with it the potential to make more use of internal investment management. The experience of internal management within Scotland, based on the data set available for this report, but also more anecdotally, appears to be positive. We made the point earlier in the report that the greater use of internal management is a trend that the OECD have seen amongst large pension fund investors, and it is certainly worth exploring given the structures that already exist at the Lothian Pension Fund.

Returning to pooling of assets more generally, the scale of one Scottish Fund would likely result in greater savings versus two; but that assertion should be tested further, perhaps by looking in greater detail at the costs incurred by similarly sized large investors. However, the rationale for one or two or any number of asset pools will unlikely just be savings related.

It is also our assertion – see Appendix A - that any pooling of assets ought to be implemented via a regulated structure, which although a complex option, is a solution that will be more robust and future proofed than a less formal arrangement. We would suggest that legal advice may need to be taken as to whether a specific asset class pool in alternatives for example would need to take a particular regulated form, or whether a joint initiative with cost sharing is acceptable

It is also our assertion that in relation to infrastructure (and illiquid assets in general), the broad theme is that scale does bring fee savings but also offers:

- the chance to bespoke portfolios
- to participate more extensively in co-investments
- flexibility to insource
- to exploit any relevant themes such sustainability.

Next steps

There are a great many issues for the Working Group to consider, and as a result we would suggest the following next steps:

1. Agree a common set of objectives in terms of the aims for collaborative working.

2. Agree a priority order of options to explore in more detail; this may focus on quick wins (e.g. a single passive procurement across the Funds) or may instead look to a full asset pooling or merger option, or perhaps take a position somewhere in the middle. For example, combining liquid assets under a regulated structure with the aim of benefiting from a governance premium and cost savings over time alongside choosing a small number of “big bang” options such as exploiting an engagement

premium, setting up a joint infrastructure program, or looking at some of the big picture strategic risk mitigation options mentioned in Section 3.

3. Consider work streams to look at timescales, process, partners for each of the options to be considered further.

APPENDICES

APPENDIX – Detail and costings of pooling structures

It is important to highlight that achieving the benefits above depends on the operational management and implementation efficiency of the structure.

> In establishing a collaborative investment framework, assets will need to be “pooled” in some form. This pooling aspect can be achieved through an unregulated or regulated structure.

Unregulated Structures

An unregulated structure is not subject to the same level of oversight and governance as the regulated vehicle. Options include:

- Increase efficiency of existing arrangements i.e. selecting common managers and negotiating lower fees (however as discussed earlier, we do not think this is a lasting solution);
- Common Investment Funds.

At first glance, a common investment fund may feel like a simple solution. However, it doesn’t solve any governance issues for the Scottish Funds. There would need to be a lead authority or a joint body of some description that would take responsibility for manager selections, reporting and monitoring, transitions, and unitisation. It is also worth noting that the LGPS Funds in England and Wales were generally advised against this type of solution on the grounds that they could be seen to be operating an unauthorised collective investment scheme, which has a number of legal implications. We would go further and suggest that a multi-billion pound asset pool needs to be run as a professional, regulated entity to avoid the real risk of “unknown unknowns” on the operational side of things, causing severe leakage of cost.

From a risk perspective, a regulated structure with proper operational controls and expertise will provide a more robust solution and establish a professional framework that would stand up to best practice and ensure the Scottish Funds are meeting appropriate standards.

Regulated Structures

Some of the key factors / drivers to be considered in determining the most suitable regulatory regime include:

- Investor type – retail or institutional
- The investment strategy to be adopted within the Fund i.e. asset classes and investment approach
- Required degree of flexibility and control
- Future proofing

The structure of choice in the LGPS in England and Wales appears to be a tax transparent UK ACS (Authorised Collective Scheme), but we suspect that this will not be utilised across all asset classes for a number of technical reasons.

What next? Where does the (regulated) structure sit?

In order to establish a fund / vehicle, a Management Company is required.

The Management Company is responsible for the running of the fund but generally delegates its main day-to-day functions (fund management, custody and fund administration). The Management Company has a fiduciary responsibility for the fund and must exercise oversight and appoint all delegates. The Regulator needs to be satisfied as to the suitability of the management company, its directors, shareholders and share capital.

The options for the Management Company:

1. Establish your own Management Company;
2. Use the Management Company of a third party custodian;
3. Access the Management Company of a third party provider to tailor a solution.

Option 1 – Establish a Management Company (the "build" option)

There is a great deal of detail that could be provided in relation to this option, which we would be pleased to provide if required. However, for the initial draft of this report, we have simply outlined the timelines and costs associated with the establishment of a management company and related regulated fund structure (the "Fund").

Timing

As a guide, we estimate that the minimum timeframe involved to establish a fund and related entities is **12-18 months.** This timeframe, however, would be prolonged considerably if the appointment of any external service provider, such as the investment manager or administrator to the Fund, were to trigger the OJEU Process (and it is more than likely that this would be the case). The timeframe is also contingent on a dedicated team of internal and external resources working on this project on a full-time basis and all aspects of the project going to plan.

Costs

In addition to the external tax and legal costs that we expect will be incurred (estimated to be in the region of £1m) considerable resources, both internal and external (in the form of consultants) in terms of time and costs need to be considered.

We estimate total resource related costs (internal and external) to be in the region of £3-4m bringing the total initial cost estimate to between £4m and £5m.

This estimate is based on Mercer's own experience and cannot be relied upon as a definitive figure.

Capital Requirements

The initial capital requirement for the Management Company is estimated to be between £3 - £6 million. This amount is subject to regulatory change.

On-going considerations

Having established a Management Company and related Fund, the Scottish Funds have ultimate fiduciary responsibility.

While certain functions may be outsourced, there is a requirement that the Fund is not a "letter box" entity. The Management Company will need to satisfy the Regulator on an ongoing basis that it has adequate management resources to conduct its activities effectively and employs personnel with the skills, knowledge necessary for the discharge of the responsibilities allocated to them.

There are considerable ongoing governance, oversight and reporting requirements to be undertaken by the Scottish Funds as a result of the establishment of regulated entities and funds as part of this option.

Option 2 – Access the Management Company of a third party provider (the “rent” option)

The second option would be to use the standalone, pre-existing Management Company of a Custodian or an Investment Manager (for example).

As the Management Company is legally responsible for appointing the custodian, administrator and investment managers, it would be important to ensure that a suitable governance framework was established which would ensure that the Scottish Funds’ preferences for investment managers could be satisfactorily accommodated without compromising the Management Companies’ legal obligations. In addition, there is the potential for conflict as the Management Company would effectively be overseeing themselves in the role of custodian and fund administrator.

This approach would provide the benefits of avoiding to “build” an internal management company and would therefore avoid the associated cost and complexity outlined in Option 1.

However, it should also be noted, that while a Custodian and/or Investment Manager may be able to provide a Management Company and infrastructure, the needs to support a collaboration framework are typically wider. The Scottish Funds would still require internal resources to support the governance and operations layer outside the Management Company to cover project management, manager appointments and implementation and asset transition.

Notwithstanding this, Option 2 would be a viable option should the Scottish Funds like to establish an internal team (significantly less than would be required under Option 1) to co-ordinate their investment arrangements.

The costs of Option 2, along with those of Option 3 for comparison are covered below, and we have also provided a comparison of included “services” between the two options.

Option 3 – Access the Management Company of third party provider to tailor a Scottish solution (a further “rent” option)

The third option is for a third party provider to tailor a solution for the Scottish Funds using their existing infrastructure and in addition, to support the operational co-ordination of the new framework on a day to day basis.

This option means that an internal operational team is not required but it may be that internal investment resource is still needed however; for example, an internal team may provide investment ideas and manager selection expertise and there is no reason whatsoever as to why an internal investment team would not continue to manage mandates under the new structure.

Some thoughts on the differences between Options 2 and 3

The difference between Option 2 and Option 3 is that the latter allows for an integrated investment support function, along with implementation in terms of set up, execution of manager appointments / replacements, transitions and rebalancing etc. Depending on the specification requirements of the provider, it would also allow for operational due diligence of the underlying investment managers and real time risk / portfolio reporting of manager's portfolios. Depending on the chosen provider, Option 3 would also allow for additional scale in terms of securing lower manager fees.

The number of providers for Options 2 and 3 is large and the market is evolving as demand increases. The range of solutions is vast and we can provide further detail if required once this initial report has been considered.

Costs of rental (Options 2 and 3) versus current approach

We outline below the indicative costs associated with the existing approach compared with either of the two rental options.

As a starting point, and for simplicity, we have taken the Funds' active global equity allocation and assessed the potential costs of a collaborative approach according to two scenarios:

- One Scottish Fund or Pool
- Two Scottish Funds or Pools

There are several reasons for starting with one asset class only:

- It is more tangible in the sense that the simpler we make it, the fewer assumptions that are needed;
- We think that by starting with one asset class and getting a structure in place, it is more likely that any collaboration project will actually get off the ground;
- Global equity is arguably far less controversial (and easier for a collective to agree on) than a wider ranging project such as "alternatives";
- Once a robust governance structure is in place, more complex decisions such as the structure of an alternatives portfolio have a proper forum for discussion.

Lothian Pension Fund has a significant amount of assets managed in-house. In our analysis below we have assumed that these continued to be managed by the in-house team and as such no management fee is charged on these assets. We have also assumed that they are included in the pool however and will therefore be subject to the structural fee.

Number of Pooled Scottish Funds	**1**		**2**	
Current Approach	(%)	(£m)	(%)	(£m)
Manager Fees*	0.40	37.6	0.40	37.6

Option 2 - Custodian Approach	Assets to be applied to each fee	(%)	(£m)	(%)	(£m)
Manager Fees*	£9.4bn	0.35	32.9	0.375	35.3
Structural Fee	£11.3bn	0.02	2.3	0.02	2.3
Implementation Fee		Not included as part of the service and potentially difficult to quantify. Items for inclusion include investment advice (for manager selection), transition fees, advice on terms of reference for Committees, monitoring of custodian / third party provider. For illustrative purposes 0.01% of £9.4bn = £0.94m which may be useful when considering the associated advisory and procurement services still required under this model.			
Total		0.31	35.2	0.33	37.6
Potential saving per annum		-	**2.4**	-	**-**

Option 3 – Tailored Approach	Assets to be applied to each fee	(%)	(£m)	(%)	(£m)
Manager Fees*	£9.4bn	0.30	28.2	0.30	28.2
Structural Fee	£11.3bn	0.05	5.7	0.07	7.9
Implementation Fee		Nil	-	Nil	-
Total		0.30	33.9	0.32	36.1
Potential saving per annum		-	**3.7**	-	**1.5**

To note:

Additional savings / benefits

The savings quoted are in relation to manager fees only and for one asset class only.

Alternative assets are the area where anecdotally the largest savings could be made but this would be a longer term project first in terms of running off existing commitments and second building a long term collective strategy.

Over time, for a Fund committing a significant proportion of assets, there would be associated reductions in fees for:

- Custody
- Reporting
- Procurement / manager selections

In addition, the additional premia discussed earlier in terms of **engagement, long term investment philosophy** and the **governance premium** should also be considered.

Additional costs

There would also be transaction costs in migrating to the new arrangement. However, in practice, we would expect the fund to be built around existing high quality managers where appropriate.

There would also be the costs of procurement and internal resource to be incorporated.

The implementation fee

Options 2 and 3 have an "implementation fee" row within the above table. Option 3 includes all associated services in relation to the final product i.e. in this case a global equity fund for Scotland.

Option 2 would need the Scottish Funds to undertake, or outsource, the following tasks:

- Advice in relation to manager selection and portfolio construction
- Procurement of managers
- Transition services

The numbers outlined here are indicative and would be dependent upon the managers and structural platform used. We stress that the market is evolving and the number should be taken as a starting point for discussion only.

Clearly the above relates solely to actual monetary cost savings and does not allow for any potential for improved decision making and the extent to which this translates to improved investment returns.

Further analysis

We have conducted further analysis looking at Active UK Equity and Fixed Income assets in order to consider the cost benefits of aggregating more of the liquid assets under a formal structure, but the data and our experience suggests that there would be little, if any benefit in terms of manager fee savings given how very low the fees are currently, unless quality was to be (potentially) compromised. (The Funds pay 0.25% p.a. for UK equity and 0.3% p.a. for Fixed Income) This does of course assume that current mandates are retained, and in practice the use of less traditional bond strategies (for example) than are currently present may see fee reductions as a result of scale.

Number of Pooled Scottish Funds		**1**		**2**
Current Approach	(%)	(£m)	(%)	(£m)
Manager Fees - Active Global Equity	0.4	37.6	0.4	37.6
Manager Fees - Active UK Equity	0.25	3.3	0.25	3.3
Manager Fees - Active Fixed Income	0.3	7.3	0.3	7.3
Total	**0.37%**	**48.2**	**0.37%**	**48.2**

Option 2 - Custodian Approach	Assets to be applied to each fee	(%)	(£m)	(%)	(£m)
Manager Fees - Active Global Equity	£9.4bn	0.35	32.9	0.375	35.3
Manager Fees - Active UK Equity	£1.3bn	0.25	3.3	0.25	3.3
Manager Fees - Active Fixed Income	£2.5bn	0.3	7.3	0.3	7.3
Structural Fee - Active Global Equity	£11.3bn	0.02	2.3	0.02	2.3
Structural Fee - Active UK Equity	£1.7bn	0.02	0.3	0.02	0.3
Structural Fee - Active Fixed Income	£2.5bn	0.02	0.5	0.02	0.5
Implementation Fee		Not included as part of the service and potentially difficult to quantify. Items for inclusion include investment advice (for manager selection), transition fees, advice on terms of reference for Committees, monitoring of custodian / third party provider. For illustrative purposes 0.01% of £15.5bn = £1.51m which may be useful when considering the associated advisory and procurement services still required under this model.			
Total	£15.5bn	0.30%	46.6	0.32%	49.0
Potential saving per annum			**1.6**		**-0.8**

Option 3 – Tailored Approach	Assets to be applied to each fee	(%)	(£m)	(%)	(£m)
Manager Fees - Active Global Equity	£9.4bn	0.3	28.2	0.3	28.2
Manager Fees - Active UK Equity	£1.3bn	0.25	3.3	0.25	3.3
Manager Fees - Active Fixed Income	£2.5bn	0.3	7.3	0.3	7.3
Structural Fee - Active Global Equity	£11.3bn	0.05	5.7	0.07	7.9
Structural Fee - Active UK Equity	£1.7bn	0.05	0.9	0.07	1.2
Structural Fee - Active Fixed Income	£2.5bn	0.05	1.3	0.07	1.8
Implementation Fee		Nil	-	Nil	-
Total	£15.5bn	0.30%	46.6	0.32%	49.6
Potential saving per annum			**1.6**		**-1.4**

So in practice, we suspect (and assuming current mandates are retained – which we acknowledge may not be the case) that manager fee savings may not be outweighed by the cost of implementing a regulated structure. The table shows a marginal gain under options 2 and 3 (assuming one pool), but the numbers are very heavily dependent on assumptions and so should not be relied on to the nth degree of accuracy.

We would therefore suggest that if assets are to be aggregated under a formal, regulated structure, then the objectives will need to be much wider than manager fee savings. We wholeheartedly support this notion, because the benefits would be wide ranging including better risk and operational management and the associated efficiencies, plus access to a greater level of resource which should lead to higher quality outcomes (e.g. more focused portfolios and potentially access to higher quality managers at reduced fees).

The impact of Lothian's internal management team also needs to be considered. We have included the Lothian assets in the structural fee above on the basis that offering use of the Lothian portfolios would likely mean they would have to be housed in a regulated structure. However, it is clear, assuming that internal costs at Lothian would not increase in a linear fashion as more assets were added (although clearly this would require further analysis), that overall costs reduce as internal management increases (assuming that internal management can compete in quality terms with current external mandates).

There is also a chain of thought that says that if the liquid assets were housed collectively (under a regulated structure) in this way, then the focus could turn to some of the bigger impact projects such as active engagement, strategic risk management or private markets investing detailed earlier.

Conclusions – next steps

It is likely that a regulated approach will be needed if there is to be any degree of asset pooling across Scotland.

The establishment of such a structure will be time consuming and not without cost. However, we believe that there are small savings to be made even by pooling global equities, but given that fees in other liquid asset classes are already extremely low, we would not want to guarantee further savings.

However, cost savings are not the only reason to pool. We are firmly of the belief that – in aggregate – long term return enhancements could be made by improving governance, by collective engagement and by having a professional regulated structure that aims to be as operationally efficient as possible, thereby minimising the cost leakages that are apparent in any pension fund.

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