Bath & North East Somerset Council

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Date: 7 November 2013
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To: All Members of the Avon Pension Fund Committee - Investment Panel

Councillor Charles Gerrish (Chair), Councillor Mary Blatchford, Roger Broughton and Councillor Ian Gilchrist

Chief Executive and other appropriate officers
Press and Public

Dear Member

Avon Pension Fund Committee - Investment Panel: Friday, 15th November, 2013

You are invited to attend a meeting of the **Avon Pension Fund Committee - Investment Panel**, to be held on **Friday, 15th November, 2013** at **2.00 pm** in the **Kaposvar Room - Guildhall, Bath.**

The agenda is set out overleaf.

Yours sincerely

Sean O'Neill
for Chief Executive

If you need to access this agenda or any of the supporting reports in an alternative accessible format please contact Democratic Services or the relevant report author whose details are listed at the end of each report.

This Agenda and all accompanying reports are printed on recycled paper

NOTES:

1. **Inspection of Papers:** Any person wishing to inspect minutes, reports, or a list of the background papers relating to any item on this Agenda should contact Sean O'Neill who is available by telephoning Bath 01225 395090 or by calling at the Riverside Offices Keynsham (during normal office hours).

2. **Public Speaking at Meetings:** The Council has a scheme to encourage the public to make their views known at meetings. They may make a statement relevant to what the meeting has power to do. They may also present a petition or a deputation on behalf of a group. Advance notice is required not less than two full working days before the meeting (this means that for meetings held on Wednesdays notice must be received in Democratic Services by 4.30pm the previous Friday)

   The public may also ask a question to which a written answer will be given. Questions must be submitted in writing to Democratic Services at least two full working days in advance of the meeting (this means that for meetings held on Wednesdays, notice must be received in Democratic Services by 4.30pm the previous Friday). If an answer cannot be prepared in time for the meeting it will be sent out within five days afterwards. Further details of the scheme can be obtained by contacting Sean O'Neill as above.

3. **Details of Decisions taken at this meeting** can be found in the minutes which will be published as soon as possible after the meeting, and also circulated with the agenda for the next meeting. In the meantime details can be obtained by contacting Sean O'Neill as above.

   Appendices to reports are available for inspection as follows:-

   Public Access points - Riverside - Keynsham, Guildhall - Bath, Hollies - Midsomer Norton, and Bath Central, Keynsham and Midsomer Norton public libraries.

   For Councillors and Officers papers may be inspected via Political Group Research Assistants and Group Rooms/Members' Rooms.

4. **Attendance Register:** Members should sign the Register which will be circulated at the meeting.

5. THE APPENDED SUPPORTING DOCUMENTS ARE IDENTIFIED BY AGENDA ITEM NUMBER.

6. **Emergency Evacuation Procedure**

   When the continuous alarm sounds, you must evacuate the building by one of the designated exits and proceed to the named assembly point. The designated exits are sign-posted.

   Arrangements are in place for the safe evacuation of disabled people.

Avon Pension Fund Committee - Investment Panel - Friday, 15th November, 2013

at 2.00 pm in the Kaposvar Room - Guildhall, Bath

A G E N D A

1. EMERGENCY EVACUATION PROCEDURE

   The Chair will draw attention to the emergency evacuation procedure as set out under Note 9.

2. DECLARATIONS OF INTEREST

   At this point in the meeting declarations of interest are received from Members in any of the agenda items under consideration at the meeting. Members are asked to complete the green interest forms circulated to groups in their pre-meetings (which will be announced at the Council Meeting) to indicate:

   (a) The agenda item number in which they have an interest to declare.

   (b) The nature of their interest.

   (c) Whether their interest is a **disclosable pecuniary interest** or an **other interest**, (as defined in Part 2, A and B of the Code of Conduct and Rules for Registration of Interests)

   Any Member who needs to clarify any matters relating to the declaration of interests is recommended to seek advice from the Council's Monitoring Officer or a member of his staff before the meeting to expedite dealing with the item during the meeting.

3. APOLOGIES FOR ABSENCE AND SUBSTITUTIONS

   To receive any declarations from Members of the Committee and Officers of personal/prejudicial interests in respect of matters for consideration at this meeting, together with their statements on the nature of any such interest declared.

4. TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIR

5. ITEMS FROM THE PUBLIC - TO RECEIVE DEPUTATIONS, STATEMENTS, PETITIONS OR QUESTIONS

6. ITEMS FROM COUNCILLORS AND CO-OPTED AND ADDED MEMBERS

   To deal with any petitions or questions from Councillors and, where appropriate, co-opted and added members.

7. MINUTES: 4TH SEPTEMBER 2013 (Pages 7 - 12)

8. REVIEW OF INVESTMENT PERFORMANCE FOR PERIODS ENDING 30 SEPTEMBER 2013 (Pages 13 - 76) 14:10

Before discussing appendices 3, 4 and 5 of this item, Members are invited to consider the arguments set out in the Public Interest document and to pass the following resolution:

> “that the Committee having been satisfied that the public interest would be better served by not disclosing relevant information, the public shall be excluded from the meeting for the duration of the discussion of exempt appendices, 3, 4 and 5 of this item, in accordance with the provisions of section 100(A)(4) of the Local Government Act 1972, because of the likely disclosure of exempt information as defined in paragraph 3 of Part 1 of Schedule 12A of the Act as amended.”

9. INFRASTRUCTURE (Pages 77 - 116) 14:40

10. WORKPLAN (Pages 117 - 120) 15:10

The Committee Administrator for this meeting is Sean O'Neill who can be contacted on 01225 395090.

Protocol for Decision-making

Guidance for Members when making decisions

When making decisions, the Cabinet/Committee must ensure it has regard only to relevant considerations and disregards those that are not material.

The Cabinet/Committee must ensure that it bears in mind the following legal duties when making its decisions:

- Equalities considerations
- Risk Management considerations
- Crime and Disorder considerations
- Sustainability considerations
- Natural Environment considerations
- Planning Act 2008 considerations
- Human Rights Act 1998 considerations
- Children Act 2004 considerations
- Public Health & Inequalities considerations

Whilst it is the responsibility of the report author and the Council's Monitoring Officer and Chief Financial Officer to assess the applicability of the legal requirements, decision makers should ensure they are satisfied that the information presented to them is consistent with and takes due regard of them.

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Bath and North East Somerset Council

AVON PENSION FUND COMMITTEE - INVESTMENT PANEL

Minutes of the Meeting held

Wednesday, 4th September, 2013, 11.00 am

Members: Councillor Charles Gerrish (Chair), Ann Berresford, Roger Broughton and Councillor Ian Gilchrist
Advisors: John Finch (JLT Investment Consultancy)
Also in attendance: Tony Bartlett (Head of Business, Finance and Pensions), Matt Betts (Assistant Investments Manager) and Matthew Clapton (Investments Officer)

25 EMERGENCY EVACUATION PROCEDURE

The Chair drew attention to the emergency evacuation procedure.

26 DECLARATIONS OF INTEREST

There were none.

27 APOLOGIES FOR ABSENCE AND SUBSTITUTIONS

Apologies were received from Councillor Mary Blatchford and Councillor Gabriel Batt.

28 TO ANNOUNCE ANY URGENT BUSINESS AGREED BY THE CHAIR

There was none.

29 ITEMS FROM THE PUBLIC - TO RECEIVE DEPUTATIONS, STATEMENTS, PETITIONS OR QUESTIONS

There were none.

30 ITEMS FROM COUNCILLORS AND CO-OPTED AND ADDED MEMBERS

There were none.

31 MINUTES 18 JULY 2013

The public and exempt minutes of the meeting of 18 July 2013 were approved and signed by the Chair.

32 REVIEW OF INVESTMENT PERFORMANCE FOR PERIODS ENDING 30 JUNE 2013

The Assistant Investments Manager presented the report. He drew attention to the RAG report on the Fund's investment managers, which had been included on the agenda for the first time. He invited Members' comments on the RAG report. He also drew attention to the information about the changes within the bond portfolio

contained in section 4 of the covering report. Before completing the rebalancing of the bond portfolio, Officers had investigated whether it would be appropriate to invest in RLAM's ethical fund and concluded that it was not appropriate because of the size of the ethical fund. In addition, because there was less commonality between the two funds than previously assumed, separate tenders may be required.

Mr Finch commented on the JLT report. As the tables on page 3 of the JLT report showed, there had been negative returns amongst a variety of asset classes during the last 3 months, though this was mainly because of market reaction to comments made by the Chairman of the Fed about the future of Quantitative Easing very near the end of the quarter. The last one year and three years showed equities moving up, but bond yields had risen by 50 basis points, which despite having a negative impact on bond returns, was, however, good for the Fund because it reduced liabilities by 10%. It had been good for the Fund to move from gilts to corporate bonds. The US economy was showing improvement, with encouraging job figures. Consumers might now be tempted to make big purchases (the average age of cars was now 8 years). Inflation might be a challenge down the line, but at present it was more of a problem in developing economies. He referred to the aggregate relative performance of managers shown in the tables on pages 9 and 10 of the JLT report (agenda pages 44 and 45) said that it was the best that he had known in his time reporting on the Fund's managers. Over the quarter fourteen managers had delivered returns in line with or over their benchmark. The Fund would soon be disinvesting from Man, one of the managers which had not achieved their benchmark. TT International had not met their three-year target, which admittedly was a challenging one, but had improved recently to become one of the best performing managers. The other four managers who had not met their targets were all hedge funds.

A member noted that Schroder Global Equity had shown improved performance this quarter following a period of underperformance and closer monitoring by the Panel.

A Member said that she felt a little concerned that though Partners and Schroders Property were performing above their benchmark and that the relative performance of Partners was among the best of the Fund's managers, property as an asset class was performing below its assumed strategic return. Mr Finch responded that these managers were performing well in a difficult market, but acknowledged that the assumption had been that property would perform better over the longer term than it had. It was also noted that the reporting would use the updated strategic return assumptions and benchmark once some of the changes to the strategic asset allocations had been made. The Assistant Investments Manager suggested that the performance of individual managers in meeting their performance targets and the long-term performance of the asset classes are both important aspects of investment performance and the reporting should clearly distinguish between both aspects. The Member thought that it was the role of the Panel to help the Committee to judge whether it had the right strategy as well as monitoring the managers' performance.

Before discussing the RAG report (Appendix 3), the Panel passed the following resolution:

RESOLVED that the Committee having been satisfied that the public interest would be better served by not disclosing relevant information, the public shall be excluded from the meeting for the duration of the discussion of exempt appendix 3 of this item,

in accordance with the provisions of section 100(A)(4) of the Local Government Act 1972, because of the likely disclosure of exempt information as defined in paragraph 3 of Part 1 of Schedule 12A of the Act as amended.

Following discussion, it was **RESOLVED** to note the information as set out in the report.

33 WORKPLAN

RESOLVED to note the Panel workplan.

The meeting ended at 11.54 am

Chair(person) ....

Date Confirmed and Signed ....

Prepared by Democratic Services

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By virtue of paragraph(s) 3 of Part 1 of Schedule 12A
of the Local Government Act 1972.

Document is Restricted

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Bath & North East Somerset Council		
MEETING:	AVON PENSION FUND INVESTMENT PANEL	
MEETING DATE:	15 NOVEMBER 2013	AGENDA ITEM NUMBER **8**
TITLE:	Review Of Investment Performance For Periods Ending 30 Sept 2013	
WARD:	ALL	
AN OPEN PUBLIC ITEM		

List of attachments to this report:

Appendix 1 – Fund Valuation

Appendix 2 – JLT performance monitoring report (shortened version)

Exempt Appendix 3 – RAG Monitoring Summary Report

Exempt Appendix 4 – Update on Signet portfolio

Exempt Appendix 5 – Diversified Growth Fund Update

1 THE ISSUE

1.1 This paper reports on the performance of the Fund's investment managers and seeks to update the Panel on routine aspects of the Fund's investments. The report contains performance statistics for periods ending 30 September 2013.

1.2 The report focuses on the performance of the individual investment managers. The full performance report with aggregate investment and funding analysis will be reported to the Committee meeting on 13 December 2013.

2 RECOMMENDATION

That the Investment Panel:

2.1 **Notes the information as set out in the report.**

2.2 **Identifies any issues to be notified to the Committee.**

FINANCIAL IMPLICATIONS

2.3 The returns achieved by the Fund for the three years commencing 1 April 2013 will impact the next triennial valuation which will be calculated as at 31 March 2016.

3 INVESTMENT PERFORMANCE

A – Fund Performance

3.1 The Fund's assets increased by £71m (c. 2.3%) in the quarter, giving a value for the investment Fund of £3,170m at 30 September 2013. Appendix 1 provides a breakdown of the Fund valuation and allocation of monies by asset class and managers.

3.2 Asset class returns were mixed in the quarter with small declines in US and Emerging Market equities. European and UK equity markets performed well over the quarter whilst Gilts and corporate bonds produced modest quarterly gains.

3.3 The main driver for the decline in US and Emerging markets was the Fed's decision to further delay the tapering of quantitative easing with the uncertainty that remains and weak currencies struggling in Emerging Markets. UK and European equity markets were driven by improving GDP data with the Eurozone as a whole emerging from an 18 month recession in Q2.

3.4 The Fund's overall performance relative to benchmarks is unavailable at the time of publishing. Full performance data will be reported to the Pensions Committee on 13 December 2013.

B – Investment Manager Performance

3.5 A detailed report on the performance of each investment manager has been produced by JLT – see pages 15 to 35 of Appendix 2.

3.6 Jupiter, Invesco, Genesis, SSgA Pacific, RLAM, Schroders Property and Partners are all outperforming their three year performance targets.

3.7 Exempt Appendix 3 summarises the latest Performance Monitoring Report used internally to monitor manager performance. The summary report highlights the managers that are rated Amber or Red, detailing the performance and/or organisational issue(s), how they are being monitored and any actions taken by officers and/or the Panel.

3.8 The RAG report highlights the following corporate changes since the last meeting:

(1) The portfolio manager of the Schroder global equity portfolio is has left Schroders. Her replacement will present to the Panel in the workshop following the meeting.

(2) Officers have met with Signet following the acquisition of Signet's fund of hedge fund business by Morgan Creek. An update is provided at Exempt Appendix 4.

In addition to the issues highlighted in the RAG Monitoring summary report, JLT has highlighted that although the SSgA European fund size has increased in size over the quarter; Avon Pension Fund remains practically the only investor. The Fund's share of the SSgA Pacific pooled fund is over c.97%. When the issue was last addressed by the Panel in November 2011, the shares of the funds were

similar. At that time SSgA confirmed the fund was sustainable even if Avon were the only investor. The size of both funds is slightly higher than when the issue was last reviewed.

4 INVESTMENT STRATEGY AND PORTFOLIO REBALANCING

4.1 Changes to the Investment Strategy agreed in March 2013 are in the process of being implemented and progress is as follows:

	Project	Progress
1	DGF Mandates	On track: Selection made. Implementation in process with selected managers. Please see Exempt Appendix 5.
2	Emerging Market Equity Mandate	On track: Tender submissions being evaluated. Due Diligence w/c 18 November Appointment decision due w/c 2 December
3	Restructuring passive equity portfolio	On track: Conversion to income distributing funds to coincide with funding of DGF and EM mandates
4	Rebalancing bond portfolio	Complete: Strategic allocation between UK gilts and corporate bonds implemented 16 August
5	Infrastructure	On Track: Background paper for discussion at this meeting. Committee to be updated at Dec meeting.

4.2 In consultation with the Investment Consultant, Officers undertook rebalancing during the Quarter to reduce the overweight to equities as the allocation was approaching the automatic trigger point for rebalancing. The latest Equity:Bond allocation is 77.6 : 22.4 as at 30 October 2013. This remains within the tactical range for rebalancing. Officers will continue to incorporate any rebalancing considerations as the new strategy is implemented.

5 RISK MANAGEMENT

5.1 The Avon Pension Fund Committee is the formal decision-making body for the Fund. As such it has responsibility to ensure adequate risk management processes are in place. A key risk to the Fund is that the investments fail to generate the returns required to meet the Fund's future liabilities. This risk is managed via the Asset Liability Study which determines the appropriate risk adjusted return profile (or strategic benchmark) for the Fund and through the selection process followed before managers are appointed. This report monitors the performance of the investment managers. The Investment Panel has been established to consider in greater detail investment performance and related matters and report back to the Committee on a regular basis.

6 EQUALITIES

6.1 An equalities impact assessment is not necessary as the report is primarily for information only.

7 CONSULTATION

7.1 This report is primarily for information and therefore consultation is not necessary.

8 ISSUES TO CONSIDER IN REACHING THE DECISION

8.1 The issues to consider are contained in the report.

9 ADVICE SOUGHT

9.1 The Council's Monitoring Officer (Divisional Director – Legal & Democratic Services) and Section 151 Officer (Divisional Director – Business Support) have had the opportunity to input to this report and have cleared it for publication.

Contact person	Matt Betts, Assistant Investments Manager (Tel: 01225 395420)
Background papers	Data supplied by The WM Company
Please contact the report author if you need to access this report in an alternative format	

Bath & North East Somerset Council

Access to Information Arrangements

Exclusion of access by the public to Council meetings

Information Compliance Ref: LGA-1434-13

Meeting / Decision: AVON PENSION FUND INVESTMENT PANEL
Date: 15 November 2013

Author: Matt Betts
Report Title: Review Of Investment Performance For Periods Ending 30 September 2013 Exempt Appendix 3 – RAG Monitoring Summary Report Exempt Appendix 4 – Update on Signet portfolio Exempt Appendix 5 – Diversified Growth Fund Update

The Report contains exempt information, according to the categories set out in the Local Government Act 1972 (amended Schedule 12A). The relevant exemption is set out below.

Stating the exemption: 3. *Information relating to the financial or business affairs of any particular person (including the authority holding that information).*

The public interest test has been applied, and it is concluded that the public interest in maintaining the exemption outweighs the public interest in disclosure at this time. It is therefore recommended that the Report be withheld from publication on the Council website. The paragraphs below set out the relevant public interest issues in this case.

PUBLIC INTEREST TEST

If the Committee wishes to consider a matter with press and public excluded, it must be satisfied on two matters.

Firstly, it must be satisfied that the information likely to be disclosed falls within one of the accepted categories of exempt information under the Local

Government Act 1972. Paragraph 3 of the revised Schedule 12A of the 1972 Act exempts information which relates to the financial or business affairs of the organisations which is commercially sensitive to the organisations. The officer responsible for this item believes that this information falls within the exemption under paragraph 3 and this has been confirmed by the Council's Information Compliance Manager.

Secondly, it is necessary to weigh up the arguments for and against disclosure on public interest grounds. The main factor in favour of disclosure is that all possible Council information should be public and that increased openness about Council business allows the public and others affected by any decision the opportunity to participate in debates on important issues in their local area. Another factor in favour of disclosure is that the public and those affected by decisions should be entitled to see the basis on which decisions are reached.

Weighed against this is the fact that the exempt appendices contains the opinions of Council officers and Panel members. It would not be in the public interest if advisors and officers could not express in confidence opinions which are held in good faith and on the basis of the best information available.

The exempt appendices also contain details of the investment processes/strategies of the investment managers. The information to be discussed is commercially sensitive and if disclosed could prejudice the commercial interests of the investment managers.

It is also important that the Committee should be able to retain some degree of private thinking space while decisions are being made, in order to discuss openly and frankly the issues under discussion relating to the investment managers in order to make a decision which is in the best interests of the Fund's stakeholders.

The Council considers that the public interest has been served by the fact that a significant amount of information regarding the Investment Panel Activity has been made available – by way of the main report.

APPENDIX 1

AVON PENSION FUND VALUATION – 30 SEPTEMBER 2013

	Passive Multi-Asset		Active Equities				Enhanced Indexation		Active Bonds	Funds of Hedge Funds	Property	In House Cash/	TOTAL	Avon Asset Mix %
All figures in £m	Black-Rock	Black-Rock 2*	TT Int'l	Jupiter (SRI)	Genesis	Schroder Global	Invesco	State Street	Royal London		Schroder & Partners	Includes Currency Hedging		
EQUITIES														
UK	327.3	12.4	168.3	143.9		20.8							672.7	21.22%
North America	165.4	11.0				108.8							285.2	9.00%
Europe	146.3					30.7		37.5					214.5	6.77%
Japan	42.5					11.1		38.0					91.6	2.89%
Pacific Rim	52.8					9.0		30.1					91.9	2.90%
Emerging Markets					146.2	17.2							163.4	5.15%
Global ex-UK							223.4						223.4	7.05%
Global inc-UK	317.1												317.1	10.24%
Total Overseas	***724.2***	***11.0***			***146.2***	***176.8***	***223.4***	***105.5***					***1387.1***	**43.99%**
Total Equities	**1051.5**	**23.4**	**168.3**	**143.9**	**146.2**	**197.6**	**223.4**	**105.5**					**2059.8**	**65.23%**
BONDS														
Index Linked Gilts	186.2												186.2	5.87%
Conventional Gilts	93.9	14.0											107.9	3.40%
Sterling Corporate	17.8								196.0				213.8	6.74%
Overseas Bonds	75.8												75.8	2.39%
Total Bonds	**373.7**	**14.0**							**196.0**				**583.7**	**18.41%**
Hedge Funds										221.2			221.2	6.98%
Property											230.1		230.1	7.26%
Cash	4.9	13.6	2.9	8.1		5.7					6.4	33.3	74.9	1.82%
TOTAL	**1430.1**	**51.0**	**171.2**	**151.9**	**146.2**	**203.3**	**223.4**	**105.5**	**196.0**	**221.2**	**236.4**	**33.3**	**3170.0**	**100.0%**

N.B. (i) Valued at BID (where appropriate)
(ii) In-house cash = short term deposits at NatWest managed on our behalf by B&NES plus general cash held at Custodian
(iii) BlackRock 2 * = represents the assets to be invested in property, temporarily managed by BlackRock

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JLT

Avon Pension Fund

Review for period to 30 September 2013

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1 Executive Summary

This report is produced by JLT Employee Benefits ("JLT") to assess the performance and risks of the investment managers of the Avon Pension Fund (the "Fund"), and of the Fund as a whole.

This version of the report has been prepared for the Investment Panel, based on initial manager data. A full version of this report will be reported to the full Committee meeting once the final WM data has been received.

Fund performance

- The value of the Fund's assets increased by £71m over the third quarter of 2013 to £3,170m.

Strategy

- Equity markets were mixed over the last quarter, with the best returns from Europe (+6.9%) and the UK (+5.6%), whereas the USA and Emerging market equities produced small negative returns of -1.0% and -2.2% respectively.
- In equity markets over the last twelve months, Japan and Europe were the best performers with returns of 31.2% and 27.1% respectively. The three year equity returns remained ahead of the assumed strategic return but were lower than in last quarter's report as the strong markets of 2010 fall out of the analysis.
- Gilt and corporate bond markets produced modest quarterly returns as gilt yields stabilised. Over the three year period returns remain ahead of the assumed strategic return.
- The Overseas Fixed Interest return has fallen to 0.1% p.a. over three years. This has been affected by rising yields within European bonds, and more recently by the view that the US Federal Reserve would start 'tapering' its Quantitative Easing.
- Both Hedge funds and Property remain below their assumed strategic returns but there has been some improvement over the last year.

Managers

- Returns from all managers were positive in absolute terms over the last quarter, with the exception of Genesis, who returned -0.8%. The best performing funds were SSgA European equities (7.0%) and TT UK equities (4.3%). All of the other funds returned between 0% and 3%.
- Genesis' longer term returns fell significantly over the last quarter, with their one-year return falling from 10.2% to 3.6%, and their three-year return falling from 6.1% p.a. to 1.8% p.a. This is in line with emerging market equities as a whole and not due to the manager, who continue to meet their objective.
- TT and SSgA Euro outperformed over three years but did not meet their three-year targets. Negative relative returns over three years were produced by Blackrock (albeit not significantly) and the hedge fund managers.
- All of the other managers met their three-year target returns.
- TT made changes in Q4 2011 that have had a positive effect on performance. They have underperformed this quarter but the one and three year returns remain above the benchmark. However their three-year return of 1.3% p.a. above the benchmark is below their target of +3-4% p.a.

- Both the SSgA Europe ex UK and Pacific incl Japan enhanced equity pooled funds remain at a size such that Avon's investment now represents almost all of the pooled fund holdings. However, the Panel has previously concluded that the funds could be sustained even if the Avon Pension Fund was the only investor.

Key points for consideration

- Emerging market equities have underperformed developed market equities significantly over the past three years due to slowing growth in emerging markets and improving sentiment in developed market equities.
  - This short term sentiment provides potential opportunities for long term investors such as the Fund.
- The Fund's returns over the past three years have benefited from a high allocation to equities and from its bond holdings, with both returning significantly above the assumed strategic return over this period.
  - Returns from both asset classes are unlikely to be as high over the following three years given current low bond yields and deleveraging consumers and governments.
  - The Fund's exposure to alternative asset classes and changes being made as a result of the recent strategic review should provide diversification to equities and bonds.
- Whilst the Panel has investigated the issue of the SSgA regional funds being dominated by the Avon investment and is comfortable with this position, it would be prudent to revisit this view on at least an annual basis.

2 Market Background

The figures below cover the three months, 1 year and 3 years to the end of September 2013.

Market Statistics

Yields as at 30 September 2013	% p.a.
UK Equities	3.41
UK Gilts (>15 yrs)	3.41
Real Yield (>5 yrs ILG)	-0.04
Corporate Bonds (>15 yrs AA)	4.32
Non-Gilts (>15 yrs)	4.51

Absolute Change in Yields	3 Mths %	1 Year %	3 Years %
UK Equities	-0.12	-0.23	0.24
UK Gilts (>15 yrs)	-0.02	0.51	-0.44
Index-Linked Gilts (>5 yrs)	-0.01	-0.13	-0.52
Corporate Bonds (>15 yrs AA)	-0.20	0.30	-0.63
Non-Gilts (>15 yrs)	-0.16	0.26	-0.46

Market Returns Bond Assets	3 Mths %	1 Year %	3 Years % p.a.
UK Gilts (>15 yrs)	1.3	-4.4	6.3
Index-Linked Gilts (>5 yrs)	0.5	6.6	8.3
Corporate Bonds (>15 yrs AA)	3.8	0.7	6.6
Non-Gilts (>15 yrs)	3.2	1.3	6.7

Market Returns Growth Assets	3 Mths %	1 Year %	3 Years % p.a.
UK Equities	5.6	18.9	10.1
Overseas Equities	0.8	18.2	9.7
USA	-1.0	19.7	15.4
Europe	6.9	27.1	7.3
Japan	0.1	31.2	8.2
Asia Pacific (ex Japan)	0.6	6.9	3.2
Emerging Markets	-2.2	0.2	-1.7
Property	2.9	6.5	6.2
Hedge Funds	1.7	7.7	5.4
Commodities	-1.9	-4.4	2.7
High Yield	-3.1	8.5	8.2
Emerging Market Debt	1.2	-4.1	4.9
Senior Secured Loans	2.7	9.2	6.7
Cash	0.1	0.4	0.5

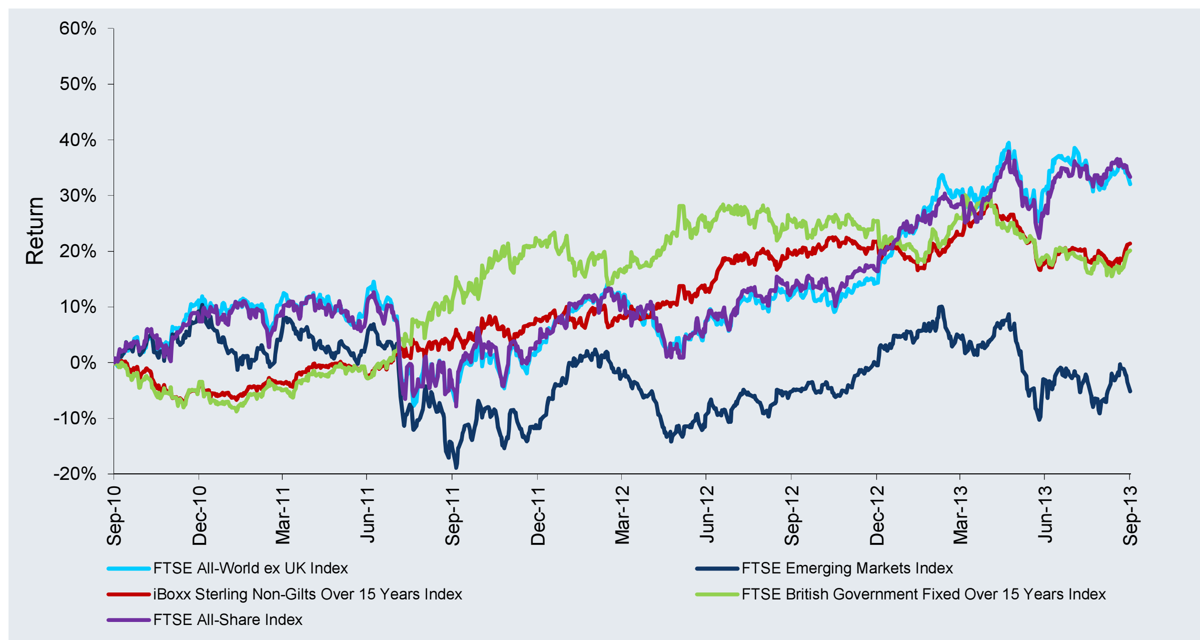
Change in Sterling	3 Mths %	1 Year %	3 Years % p.a.
Against US Dollar	6.8	0.3	0.9
Against Euro	2.5	-4.7	1.2
Against Yen	5.5	26.5	6.5

Inflation Indices	3 Mths %	1 Year %	3 Years % p.a.
Price Inflation – RPI	0.9	3.2	3.8
Price Inflation – CPI	0.7	2.7	3.3
Earnings Inflation *	-0.1	0.7	1.5

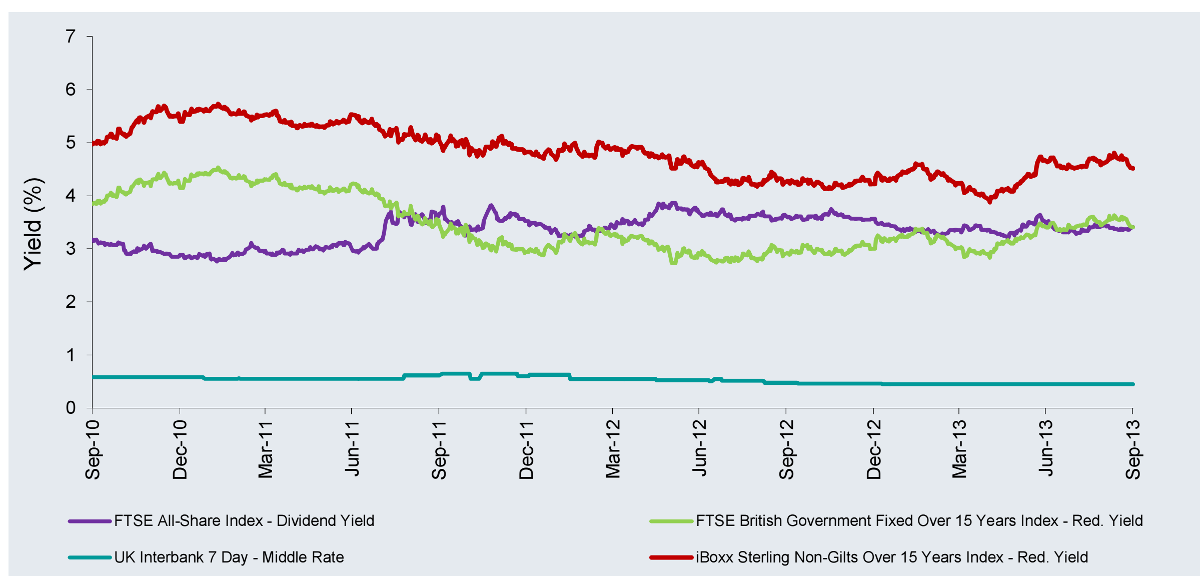
* Subject to 1 month lag

Source: Thomson Reuters and Bloomberg

Market Summary charts



The graph above shows market returns for the last three years; both the medium-term trend and the short-term volatility.



The graph above shows the historic yields for gilts, corporate bonds, UK equities and UK cash over the last three years. The trend over 2011 and 2012 shows falling gilt and corporate bond yields. Apart from cash, yields fell slightly over the last quarter, following rises over the second quarter of 2013.

The table below compares general market returns (i.e. not achieved Fund returns) to 30 September 2013, with assumptions about returns made in the Investment Strategy agreed in 2009.

Asset Class	Strategy Assumed Return % p.a.	3 year Index Return % p.a.	Comment
UK Equities	8.4	10.1	Ahead of the assumed strategic return following strong returns throughout the period apart from mid-2011. This quarter, markets have continued to rise although not as strongly as in Q2 2010 (which has fallen out of the 3-year return), hence returns are lower than in the last report.
Global Equities	8.4	9.7	
UK Gilts	4.7	6.3	Ahead of the assumed strategic return as gilt yields fell significantly during 2011. However the returns are lower than in recent reports as gilt yields have begun to rise or stabilise over the last two quarters.
Index Linked Gilts	5.1	8.3	
UK Corporate Bonds	5.6	6.0	
Overseas Fixed Interest	5.6	0.1	Behind the assumed strategic return, affected by rising yields within European bonds, and more recently by the view that the US Federal Reserve would start 'tapering' its Quantitative Easing.
Fund of Hedge Funds	6.6	2.6	Behind the assumed strategic return following a negative return in 2011. More recent returns have been steady and an improvement on 2011, with return over the last twelve months being 6.5%. Low LIBOR levels could lead to continued low performance.
Property	7.4	6.2	This remains behind the assumed strategic return, but continues to improve as property prices begin to rise.

Source: Statement of Investment Principles, Thomson Reuters.

See appendix A for economic data and commentary.

3 Fund Valuations

The table below shows the asset allocation of the Fund as at 30 September 2013, with the BlackRock Multi-Asset portfolio and the BlackRock property portfolio (assets “ring fenced” for investment in property) split between the relevant asset classes.

Asset Class	30 September 2013 Value £'000	Proportion of Total %	Strategic Benchmark Weight %
UK Equities	672,642	21.2	18.0
Overseas Equities	1,394,664	44.0	42.0
Bonds	583,735	18.4	20.0
Fund of Hedge Funds	221,232	7.0	10.0
Cash (including currency instruments)	67,391	2.1	-
Property	230,061	7.3	10.0
TOTAL FUND VALUE	**3,169,725**	**100.0**	**100.0**

Source: Data provided by WM Performance Services

- The value of the Fund's assets increased by £71m over the third quarter of 2013 to £3,170m. Each asset class (except for Property) contributed to the increase with the majority (£43m) coming from UK Equities.
- In terms of the asset allocation, market movements resulted in a shift towards UK equities, and away from each of the other asset classes. This moved the allocation further away from the strategic benchmark weight apart for overseas equities.
- The Fund remains overweight in equities and underweight in bonds, hedge funds and property.
- The valuation of the investment with each manager is provided on the following page.

Manager	Asset Class	30 June 2013		Net new money £'000	30 September 2013	
		Value £'000	Proportion of Total %		Value £'000	Proportion of Total %
Jupiter	UK Equities	140,717	4.5	-	151,976	4.8
TT International	UK Equities	163,649	5.3	-	171,207	5.4
Invesco	Global ex-UK Equities	221,159	7.1	-	223,388	7.0
Schroder	Global Equities	201,966	6.5	-	203,330	6.4
SSgA	Europe ex-UK Equities and Pacific incl. Japan Equities	101,947	3.3	-	105,517	3.3
Genesis	Emerging Market Equities	147,236	4.8	-	146,181	4.6
MAN	Fund of Hedge Funds	64,160	2.1	-	63,607	2.0
Signet	Fund of Hedge Funds	65,478	2.1	-	65,903	2.1
Stenham	Fund of Hedge Funds	35,591	1.1	-	35,966	1.1
Gottex	Fund of Hedge Funds	55,178	1.8	-	55,755	1.8
BlackRock	Passive Multi-asset	1,418,832	45.8	-	1,430,170	45.2
BlackRock (property fund)	Equities, Futures, Bonds, Cash (held for property inv)	55,380	1.8	-5,500	51,032	1.6
RLAM	Bonds	171,978	5.5	-	196,005	6.2
Schroder	UK Property	135,421	4.4	-	139,246	4.4
Partners	Property	104,279	3.4	500	97,169	3.1
Record Currency Mgmt	Dynamic Currency Hedging	-3,609	-0.1	-	7,877	0.2
Record Currency Mgmt 2	Overseas Equities (to fund currency hedge)	6,832	0.2	-	7,426	0.2
Internal Cash	Cash	12,949	0.4	5,000	17,970	0.6
Rounding		-	-	-	-	-
TOTAL		**3,099,143**	**100.0**	**0**	**3,169,725**	**100.0**

Source: Avon Pension Fund Data provided by WM Performance Services

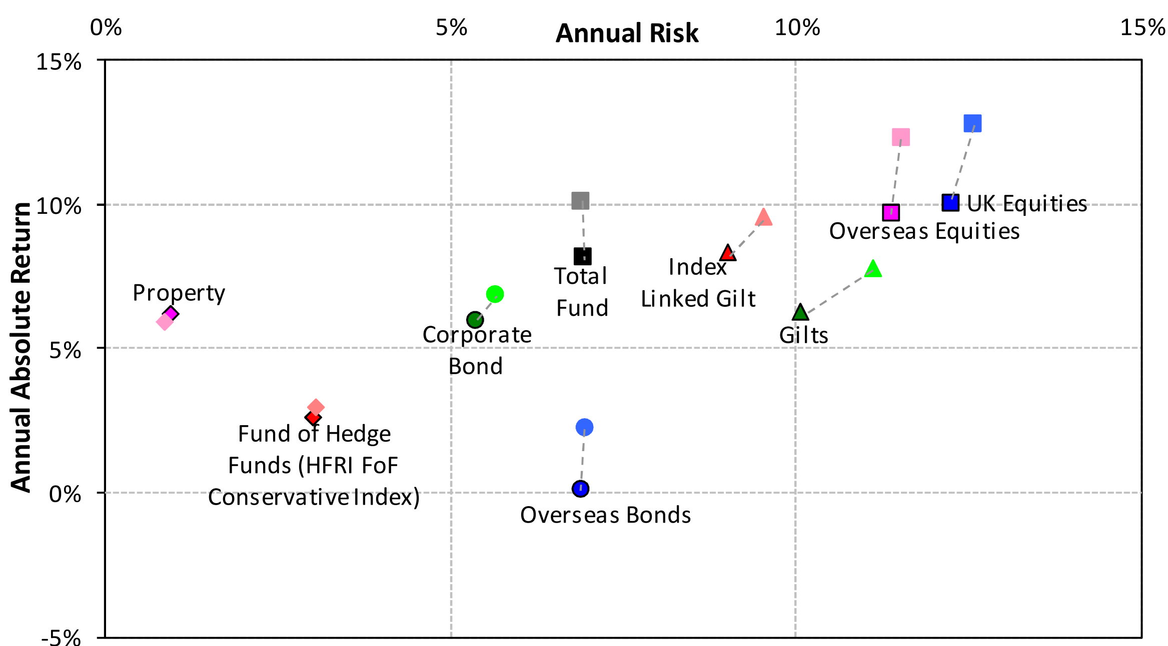
4 Performance Summary

Risk Return Analysis

The chart below shows the 3 year absolute return ("Annual Absolute Return") against the 3 year volatility of absolute returns ("Annual Risk"), based on monthly/quarterly (as available) data points in sterling terms, to the end of September 2013 of each of the underlying asset benchmarks, along with the total Fund strategic benchmark. We also show the position as at last quarter, as shadow points.

- This chart can be compared to the 3 year risk vs return managers' chart on page 14.

3 Year Risk v 3 Year Return to 30 September 2013

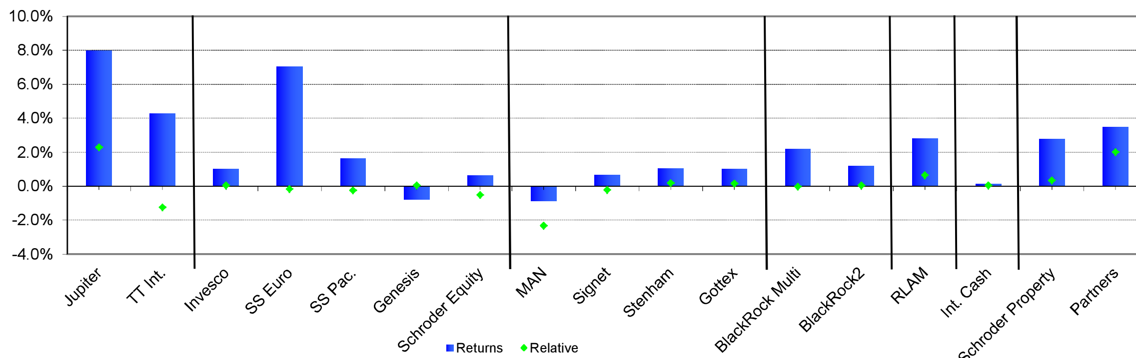


- All of the underlying benchmarks have produced a positive return over the period (3 years p.a.).
- Other than a small increase in the property return, the three year returns have fallen across all asset classes. This was partly due to Q3 2010 falling out of the analysis, in which there were strong bond returns and a rebound in equity markets following their falls of Q2 2010.
- Equities remain the best performing asset class over three years and continued to post positive returns over the last quarter, particularly UK equities. Despite this, the three-year equity returns reduced by 2.7% p.a. for both UK and overseas.
- The Property return has increased slightly.
- Hedge funds continue to produce steady returns, improving to 6.5% over the last year compared to 2.6% in the year to September 2012 and a negative return in 2011.
- Gilts, index-linked and corporate bonds 3-year returns fell as yields stabilised over the last quarter, leading to a low return.
- In terms of risk, the three-year volatility has decreased for each of the asset classes except property as the volatile returns of 2010 are replaced by steadier returns.
- The three-year return on equities, gilts, index-linked gilts and corporate bonds are above their assumed strategic return. Property, overseas fixed interest and hedge funds remain below their assumed strategic return.

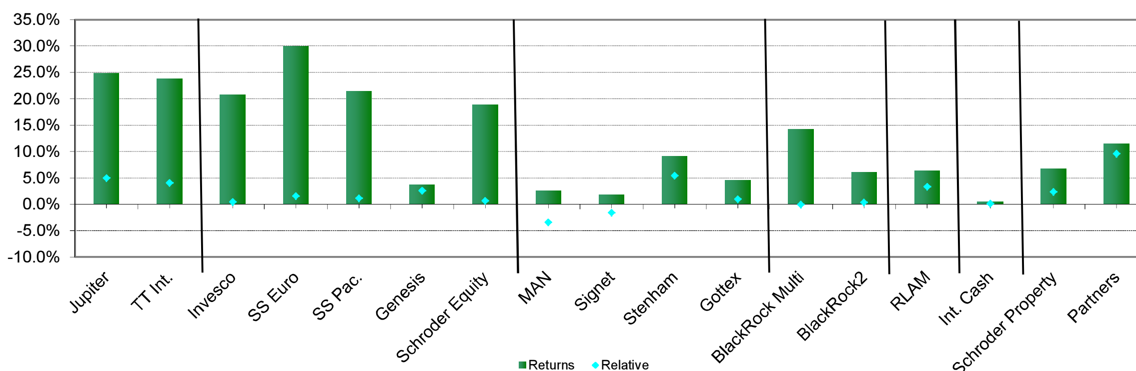
Aggregate manager performance

The charts below show the absolute return for each manager over the quarter, one year and three years to the end of September 2013. The relative quarter, one year and three year returns are marked with green and blue dots respectively.

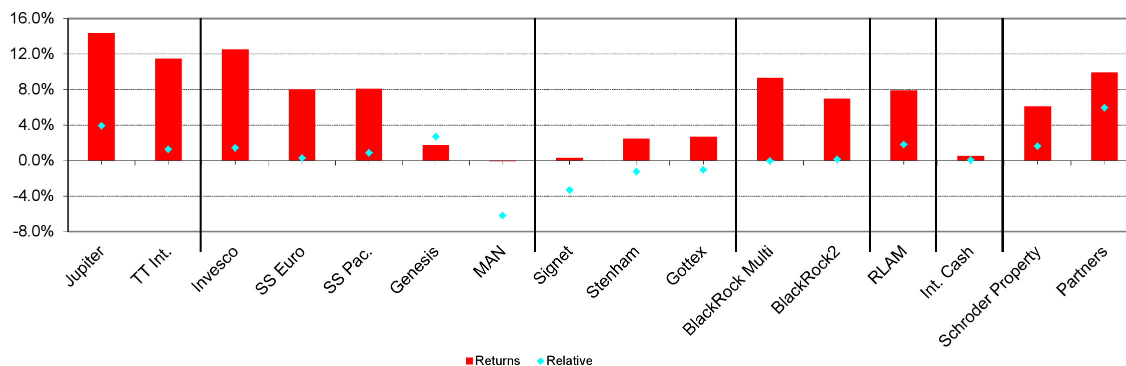
Absolute and relative performance - **Quarter to 30 September 2013**



Absolute and relative performance - **Year to 30 September 2013**



Absolute and relative performance – **3 years to 30 September 2013**



Source: Data provided by WM Performance Services

The table below shows the relative returns of each of the funds over the quarter, one year and three years to the end of September 2013. Returns in blue text are returns which outperformed the respective benchmarks, red text shows an underperformance, and black text represents performance in line with the benchmark.

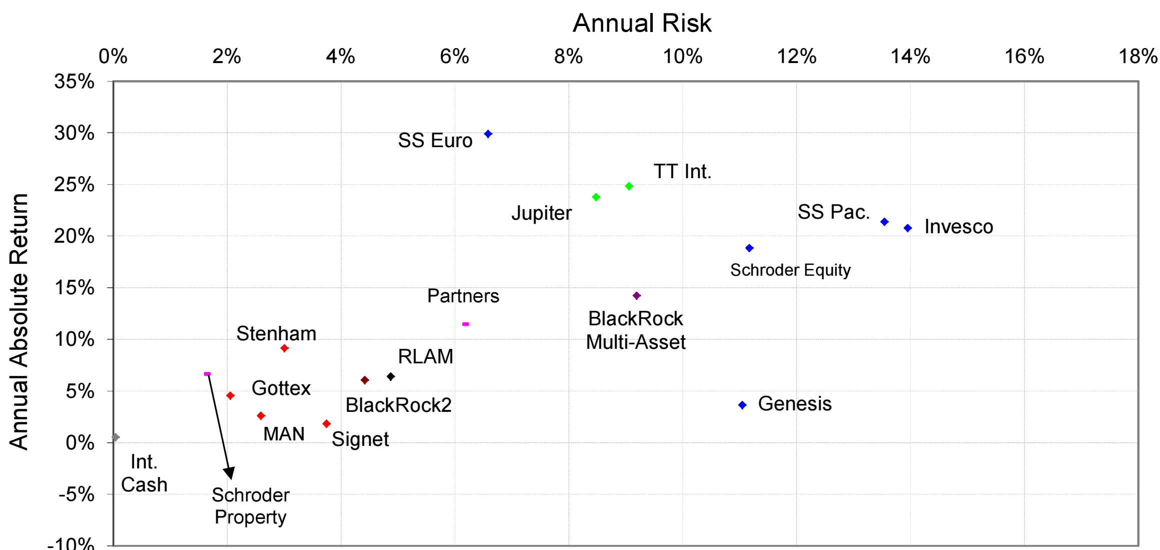
Manager / fund	3 months (%)	1 year (%)	3 years (% p.a.)	3 year performance versus target
Jupiter	+2.3	+5.0	+3.9	Target met
TT International	-1.3	+4.1	+1.3	Target not met
Invesco	0.0	+0.5	+1.4	Target met
SSgA Europe	-0.2	+1.5	+0.3	Target not met
SSgA Pacific	-0.3	+1.2	+0.9	Target met
Genesis	0.0	+2.6	+2.7	Target met
Schroder Equity	-0.5	+0.7	N/A	N/A
Man	-2.3	-3.4	-6.2	Target not met
Signet	-0.2	-1.6	-3.3	Target not met
Stenham	+0.2	+5.4	-1.2	Target not met
Gottex	+0.2	+1.0	-1.0	Target not met
BlackRock Multi - Asset	0.0	-0.1	-0.1	Target not met
BlackRock 2	0.0	+0.4	+0.1	Target met
RLAM	+0.6	+3.4	+1.8	Target met
Internal Cash	0.0	+0.1	+0.1	N/A
Schroder Property	+0.3	+2.3	+1.6	Target met
Partners Property	+2.0	+9.6	+6.0	Target met

Source: Data provided by WM Performance Services

Manager and Total Fund risk v return

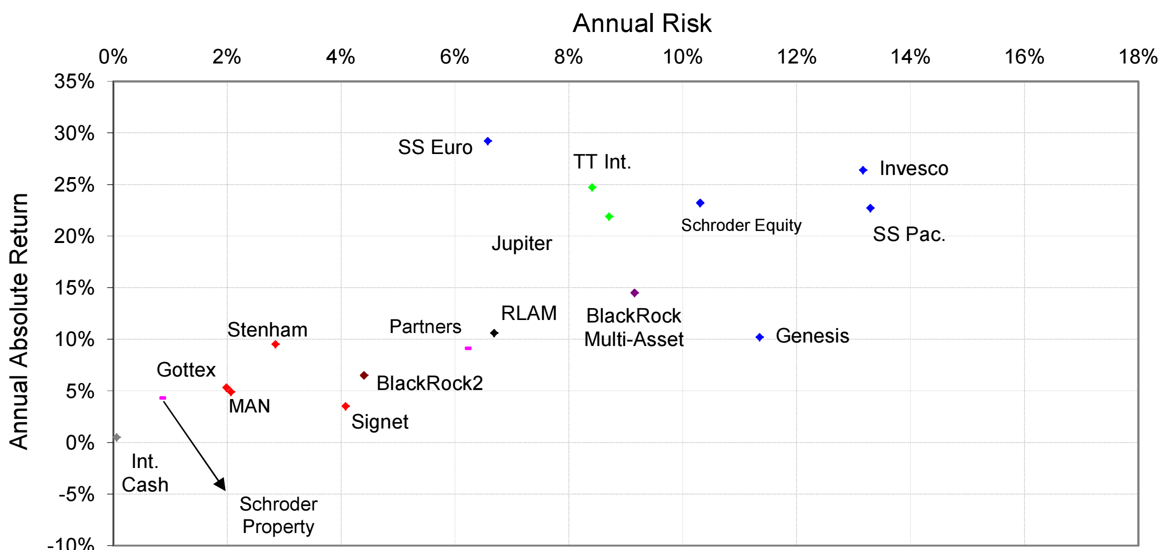
The chart below shows the 1 year absolute return ("Annual Absolute Return") against the 1 year volatility of absolute returns ("Annual Risk"), based on monthly/quarterly (as available) data points in sterling terms, to the end of September 2013 of each of the funds. We also show the same chart, but with data to 30 June 2013 for comparison.

1 Year Risk v 1 Year Return to 30 September 2013



Source: Data provided by WM Performance Services

1 Year Risk v 1 Year Return to 30 June 2013

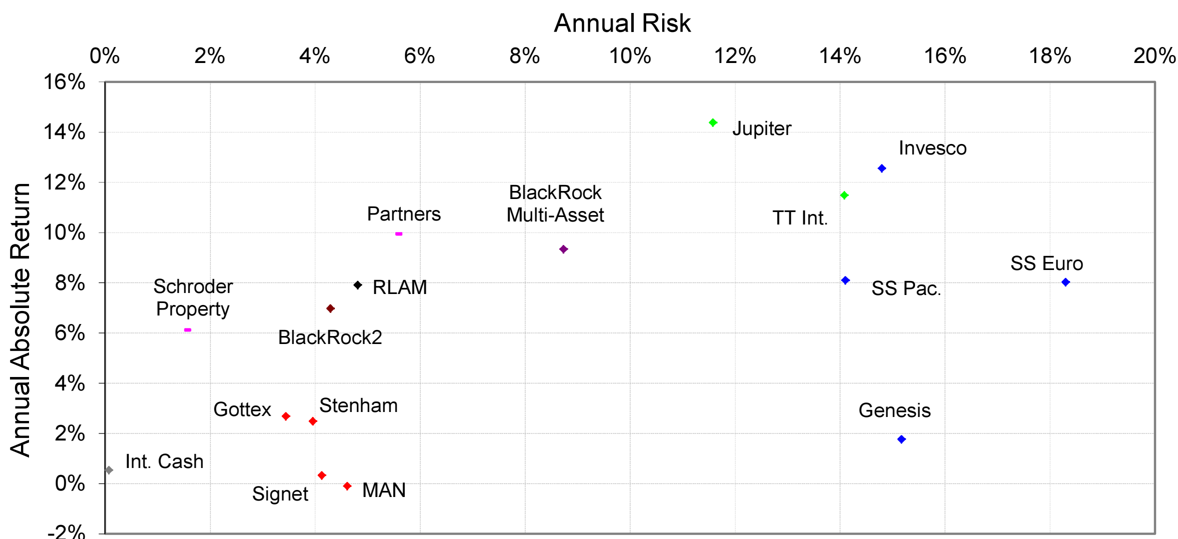


Source: Data provided by WM Performance Services

- The managers are colour coded by asset class, as follows:
  - Green: UK equities — Blue: overseas equities
  - Red: fund of hedge funds — Black: bonds
  - Maroon: multi-asset — Brown: BlackRock No. 2 portfolio
  - Grey: internally managed cash — Pink: Property
  - Green Square: total Fund
- The one-year returns of each of the developed equity managers have remained above 20%, apart from Schroders.
- The Genesis emerging equity return has fallen from 10.2% to 3.6%, with RLAM's one-year return falling from 10.6% to 6.4%.
- Each of the hedge fund managers has seen their one-year returns decrease.
- The one year-risk figures have generally increased slightly, with the notable exception of RLAM corporate bonds.

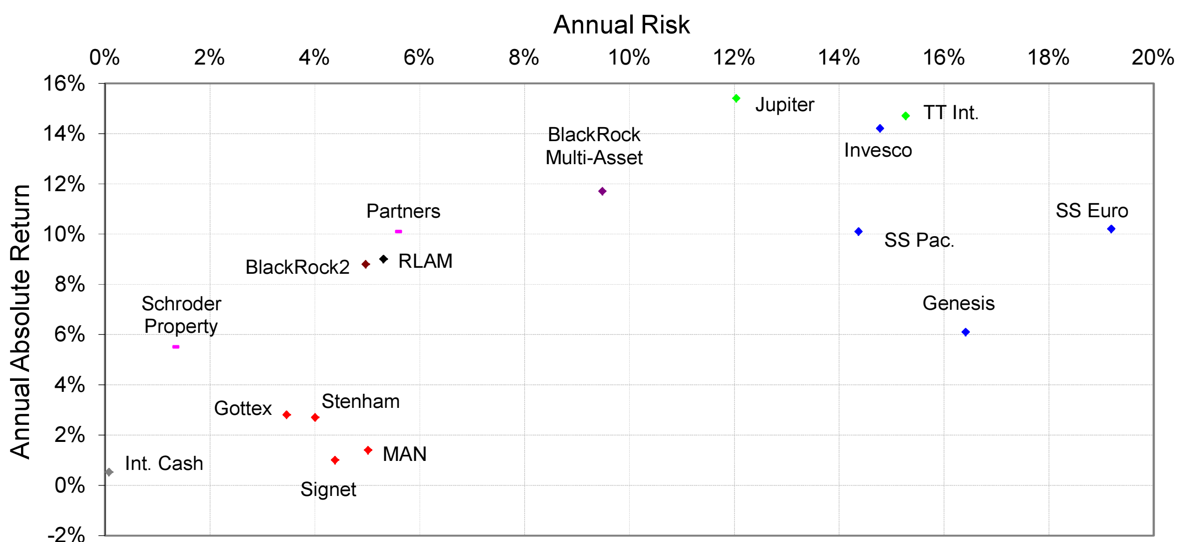
The chart below shows the 3 year absolute return ("Annual Absolute Return") against the 3 year volatility of absolute returns ("Annual Risk"), based on monthly/quarterly (as available) data points in sterling terms, to the end of September 2013 of each of the funds. We also show the same chart, but with data to 30 June 2013 for comparison.

3 Year Risk v 3 Year Return to 30 September 2013



Source: Data provided by WM Performance Services

3 Year Risk v 3 Year Return to 30 June 2013



Source: Data provided by WM Performance Services

- The managers are colour coded by asset class, as follows:
  - Green: UK equities — Blue: overseas equities
  - Red: fund of hedge funds — Black: bonds
  - Maroon: multi-asset — Brown: BlackRock No. 2 portfolio
  - Grey: internally managed cash — Pink: Property
  - Green Square: total Fund
- There has been a fall in the three-year returns for all managers except Schroder Property.
- Most notable are the equity funds, in particular TT's return has fallen from 14.7% p.a. to 11.5% p.a., and Genesis' return has fallen from 6.1% p.a. to 1.8% p.a.
- The three-year risk figures have fallen slightly for all managers, again except for Schroder Property. As would be expected, the equity-based funds have the highest volatility and hedge funds, property and fixed interest the lowest, in line with the market returns chart on page 8.

Conclusion

- The strongest returns over the one year period are from the equity and Blackrock Multi-asset funds. The one-year return from all managers was positive in absolute terms.
- Over three years, the best performer remains Jupiter at 14.4% p.a. Hedge fund returns remain the lowest at 0-3% p.a.
- Generally returns were broadly consistent with those seen last quarter, with the exception of Genesis which has seen its one and three year return fall sharply as a result of underperformance from the emerging markets relative to developed equities.
- The Fund of Hedge Fund and property managers continue to provide low volatility over both the 1 and three year period. However, over the longer three year period they have each underperformed their assumed strategic return. Each of the equity-based funds has outperformed the assumed strategic return over three years.

5 Individual Manager Performance

This section provides a one page summary of the key risk and return characteristics for each investment manager. An explanatory summary of each of the charts is included in the Glossary in Appendix A, with a reference for each chart in the chart title (e.g. #1). A summary of mandates is included in Appendix B, which shows the benchmark and outperformance target for each fund.

Key points for consideration

- Emerging market equities have underperformed developed market equities significantly over the past three years due to slowing growth in emerging markets and improving sentiment in developed market equities.
  - This short term sentiment provides potential opportunities for long term investors such as the Fund.
- The Fund's returns over the past three years have benefited from a high allocation to equities and from its bond holdings, with both returning significantly above the assumed strategic return over this period.
  - Returns from both asset classes are unlikely to be as high over the following three years given current low bond yields and deleveraging consumers and governments.
  - The Fund's exposure to alternative asset classes and changes being made as a result of the recent strategic review should provide diversification to equities and bonds.
- Whilst the Panel has investigated the issue of the SSgA regional funds being dominated by the Avon investment and is comfortable with this position, it would be prudent to revisit this view on at least an annual basis.

5.1 Jupiter Asset Management - UK Equities (Socially Responsible Investing)

Mandate	Benchmark	Outperformance Target	Inception Date
UK equities (Socially Responsible Investing)	FTSE All Share	+2%	April 2001

Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Clear and robust approach to evaluating SRI factors within the investment process ■ Dedicated team of SRI analysts to research SRI issues and lead engagement and voting activities ■ Corporate commitment to SRI investment approach within a more mainstream investment team

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£151,976	4.8	3.6%	N/A

Relative returns [#1]

Tracking error, Information ratio, Turnover [#4]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	8.0	24.8	14.4
Benchmark	5.6	18.9	10.1
Relative	+2.3	+5.0	+3.9

Source: Data provided by WM Performance Services, and Jupiter.

Comments:

- Jupiter are outperforming their 3 year performance target.
- The Fund's allocation to Cash (5.1%) has decreased slightly from the last quarter and remains below the 7% limit.
- The industry allocation has continued to remain considerably different to the benchmark allocation (as expected from Socially Responsible Investing), so the variability of relative returns (tracking error) is expected to be high. Over Q3 2013, Jupiter was significantly underweight in Oil & Gas, Consumer Goods and Basic Materials, with significant overweight positions in Consumer Services and Industrials.
- The rise in information ratio over the last quarter is a result of their three-year relative return increasing from +2.3% p.a. to +3.9% p.a. Tracking error has continued to fall.

5.2 TT International – UK Equities (Unconstrained)

Mandate	Benchmark	Outperformance Target	Inception Date
UK equities (unconstrained)	FTSE All Share	+3-4%	July 2007

Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Favoured the partnership structure that aligns managers and Fund's interests. ■ Focussed investment activity and manages its capacity ■ Clear, robust stock selection and portfolio construction process

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£171,207	5.4	2.5%	60

Relative returns [#1]

Information ratio and Turnover [#4]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	4.3	23.8	11.5
Benchmark	5.6	18.9	10.1
Relative	-1.3	+4.1	+1.3

Source: Data provided by WM Performance Services, and TT International.

Comments:

- The Fund has underperformed this quarter but the one and three year returns remain above the benchmark.
- The Fund held an overweight position in Industrials by 4.1% and was underweight in Oil & Gas and Utilities, by 2.5% and 2.3% respectively, at the end of the quarter.
- Turnover, over the third quarter, decreased to 17.2% compared to the last quarter's number of 19.8%. This is a higher turnover than Jupiter but is in line with expectations for TT's approach.
- The 3 year tracking error (proxy for risk relative to the benchmark) has remained broadly consistent over the last few quarters, to stand at 2.48%. However, there has been a consistent decrease since Q3 2010, when it was 3.12%.
- The 3 year information ratio decreased by 0.16 to 0.61, demonstrating a decline in the relative return.

5.3 Schroder – Global Equity Portfolio (Unconstrained)

Mandate	Benchmark	Outperformance Target	Inception Date
Global Equities (Unconstrained)	MSCI AC World Index Free	+4%	April 2011

Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Clear philosophy and approach ■ Long term investment philosophy aligned with Fund's goals, commitment to incorporating ESG principles throughout the investment process ■ Evidence of ability to achieve the Fund's performance target

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£203,330	6.4	N/A	N/A

Relative returns #1

4.0%
3.0%
2.0%
1.0%
0.0%
-1.0%
-2.0%
-3.0%
-4.0%
-5.0%
12.0%
9.0%
6.0%
3.0%
0.0%
-3.0%
-6.0%
-9.0%
-12.0%
-15.0%
Q4 10 Q1 11 Q2 11 Q3 11 Q4 11 Q1 12 Q2 12 Q3 12 Q4 12 Q1 13 Q2 13 Q3 13
Quarterly relative return
Since inception relative return (% p.a. after 1 year)
Since inception benchmark return (% p.a. after 1 year) [right axis]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	0.6	18.8	N/A
Benchmark	1.2	18.0	N/A
Relative	-0.5	+0.7	N/A

Source: Data provided by WM Performance Services, and Schroders.

Comments:

- The return was below the benchmark over the quarter but above benchmark over the 1 year period.
- The belief that the US Federal Reserve would imminently taper its quantitative easing programme dampened investors' risk appetite in August, causing emerging markets equities to fall in particular. This hurt their stocks exposed to certain emerging market countries, which was the main contributor to the fund's underperformance.
- The strongest positive contributor was energy stocks, helped by the rise in oil price following the escalation of the Syrian conflict. These rises were concentrated in North America and the UK.
- Information technology was the largest detractor at a sector level, with Microsoft underperforming due to slower desktop sales and weaker profitability in its Windows division.
- Schroder continue to pursue companies which should benefit from longer-term global trends. The portfolio is balanced between defensive stocks (e.g. a stock which is not dependent on economic conditions such as stocks in pharmaceuticals or food) and more cyclical industries (those stocks that are sensitive to movements in the economic cycle such as Financials).
- Overall Schroder expect the global economy to improve as we go through 2013 and into 2014. They think that the slight slowdown in emerging market growth might ultimately be positive as it will help put the region on a more sustainable growth path so that it can fulfil its long-term potential.

5.4 Genesis Asset Managers – Emerging Market Equities

Mandate	Benchmark	Outperformance Target	Inception Date
Emerging Market equities	MSCI EM IMI TR	-	December 2006

Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Long term investment approach which takes advantage of evolving growth opportunities ■ Niche and focussed expertise in emerging markets ■ Partnership structure aligned to delivering performance rather than growing assets under management

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£146,181	4.6	3.3%	165

Relative returns [#1]

Tracking error, Information ratio, Turnover [#4]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	-0.8	3.6	1.8
Benchmark	-0.8	1.0	-0.9
relative	0.0	+2.6	+2.7

Source: Data provided by WM Performance Services, and Genesis.

Comments:

- Genesis have achieved significant outperformance of the benchmark over 3 years.
- The Fund is overweight to India, South Africa and Russia, while underweight to South Korea and China, although note that the over and underweights are a result of Genesis' stock picking approach, rather than taking a view on countries.
- The three year tracking error (proxy for risk relative to the benchmark) declined slightly to 3.3% in Q3 2013. The three year information ratio (risk adjusted return), has remained unchanged to 0.8.
- The allocation to Cash (1.9%) increased slightly compared to the previous quarter (1.1%).
- On an industry basis, the Fund is overweight Consumer Staples (+6.7%), Materials (+4.9%), Health Care (+2.6%), Information Technology (+1.9%) and Financials (+0.7%). The Fund is underweight to Consumer Discretionary (-5.3%), Energy (-4.5%), Telecom Services (-4.4%), Industrials (-2.3%) and Utilities (-2.3%).

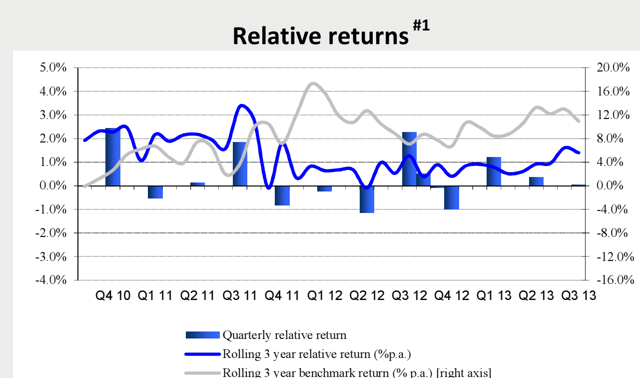
5.5 Invesco – Global ex-UK Equities (Enhanced Indexation)

Mandate	Benchmark	Outperformance Target	Inception Date
Global ex-UK equities enhanced (En. Indexation)	MSCI World ex UK NDR	+0.5%	December 2006

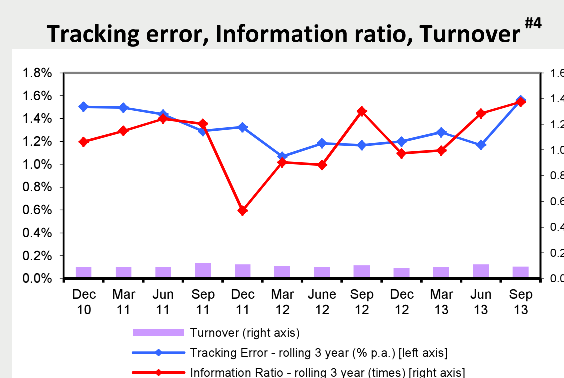
Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Robust investment process supported by historical performance record, providing a high level of assurance that the process could generate the outperformance target on a consistent basis ■ One of few to Offer a Global ex UK pooled fund

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£223,388	7.0	1.6%	350

Relative returns [#1]



Tracking error, Information ratio, Turnover [#4]



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	1.0	20.8	12.6
Benchmark	1.0	20.2	11.0
relative	0.0	+0.5	+1.4

Source: Data provided by WM Performance Services, and Invesco.

Comments:

- Over the last quarter, sector selection contributed positively but this was offset by stock selection.
- The absolute volatility has increased to 11.0% at the end of the third quarter of 2013 compared to 9.0% at the end of the second quarter of 2013, reflecting the increase in market volatility over the period.
- The turnover for this quarter of 9.3% decreased from 11.1% in the previous quarter. The number of stocks (350) decreased compared to the previous quarter. It remains an appropriate number for the enhanced indexation approach.
- The industry allocation is relatively in line with the benchmark industry allocations. All industry allocations were broadly within +/- 1.0% of benchmark weightings except for Financials and Industrials.
- Despite performing in line with the benchmark over the quarter, Invesco's three year performance has moved further above the benchmark and remains above their outperformance target.

5.6 SSgA – Europe ex-UK Equities (Enhanced Indexation)

Mandate	Benchmark	Outperformance Target	Inception Date
Europe ex-UK equities (enhanced indexation)	FTSE AW Europe ex UK	+0.5%	December 2006

Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Strength of their quantitative model and process, and ongoing research to develop the model. ■ Historical performance met the risk return parameters the Fund was seeking. ■ 2 Funds (European and Pacific) to achieve the Fund's customised asset allocation within overseas equities

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£37,453	1.1	N/A	212

Relative returns [#1]

Tracking error, Information ratio, Turnover [#4]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	7.0	29.9	8.0
Benchmark	7.2	27.9	7.7
relative	-0.2	+1.5	+0.3

Source: Data provided by WM Performance Services, and SSgA.

Comments:

- France, Germany and Switzerland make up over 60% of the fund's benchmark - it is overweight in all three countries.
- The total pooled fund size on 30 September 2013 was £37.52m, increasing over the last quarter and falling significantly since the size of £306.12m on 31 March 2011. This means that the Fund is practically the only investor, although the Panel has previously concluded that the Fund could be sustained even if the Avon Pension Fund was the only investor. Performance of the SSgA Europe ex UK Enhanced Equity Fund does not appear to have been affected by its reduction in size.
- Turnover has increased from 30.7% to 34.2%, closer to that previously seen. The tracking error has almost remained in line with the previous quarter.
- The information ratio has broadly remained the same as compared to the previous quarter.

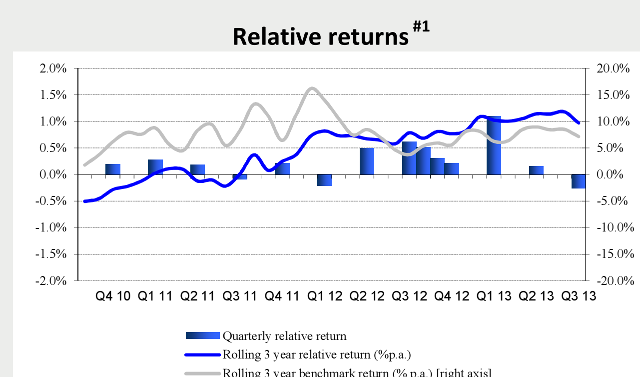
5.7 SSgA – Pacific incl. Japan Equities (Enhanced Indexation)

Mandate	Benchmark	Outperformance Target	Inception Date
Pacific inc. Japan equities	FTSE AW Dev Asia Pacific	+0.5%	December 2006

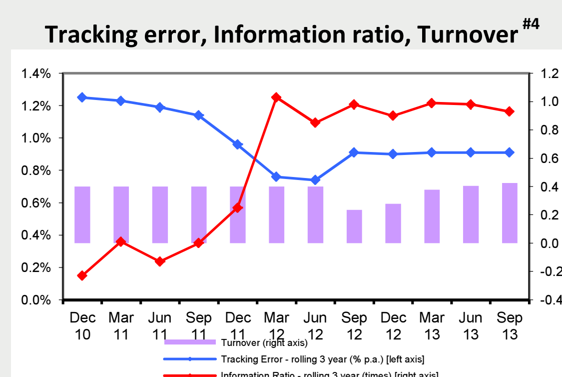
Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified equity portfolio	■ Strength of their quantitative model and process, and ongoing research to develop the model. ■ Historical performance met the risk return parameters the Fund was seeking. ■ 2 Funds (European and Pacific) to achieve the Fund's customised asset allocation within overseas equities

Value (£'000)	% Fund Assets	Tracking Error	Number of Holdings
£68,064	2.2	N/A	N/A

Relative returns #1



Tracking error, Information ratio, Turnover #4



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	1.6	21.4	8.1
Benchmark	1.9	20.0	7.2
Relative	-0.3	+1.2	+0.9

Source: Data provided by WM Performance Services, and SSgA.

Comments:

- In terms of country allocation, there are no significant deviations away from the benchmark. Just over half of the fund (55.8%) is invested in Japan.
- The pooled fund size is £69.90m of which Avon hold £68.06m. This is a higher proportion of the fund than as at the end of June 2013, but again the conclusion was that the Fund could be sustained even if the Avon Pension Fund was the only investor.
- Although the fund underperformed over the quarter, it remains ahead over the one and three year periods.
- The tracking error and turnover information has not been received in time for this initial report. The tracking chart above is from our last report.
- Turnover has further increased to 42.6% after an increase in the previous quarter as well.
- The information ratio (+0.93) has slightly decreased compared to the previous quarter (+0.98).
- The tracking error of the fund has remained the same as it was last quarter.

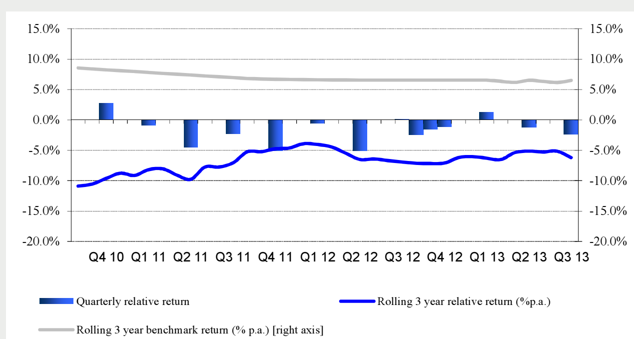
5.8 MAN – Fund of Hedge Funds

Mandate	Benchmark	Portfolio Volatility (3 yr p.a.)	Inception Date
Fund of Hedge Funds	3 month LIBOR +5.75%	5.4%	August 2007

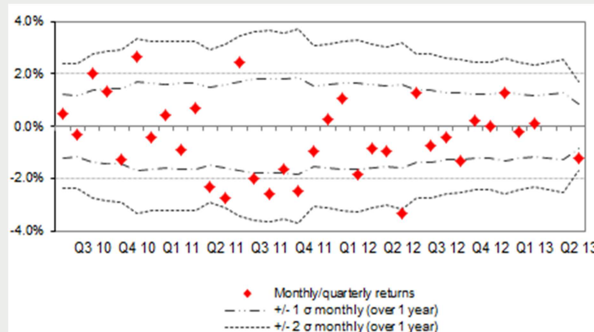
Reason in Portfolio	Reason Manager Selected
To reduce the volatility of the Growth portfolio and increase diversification	■ Institutional infrastructure and resources (not common within hedge funds at time of appointment) ■ Resources to provide multi-strategy investment approach ■ Higher return and volatility target to complement lower return target of other funds within the hedge fund portfolio

Value (£'000)	% Fund Assets	Number of Funds Over Quarter	
£63,607	2.0	46	

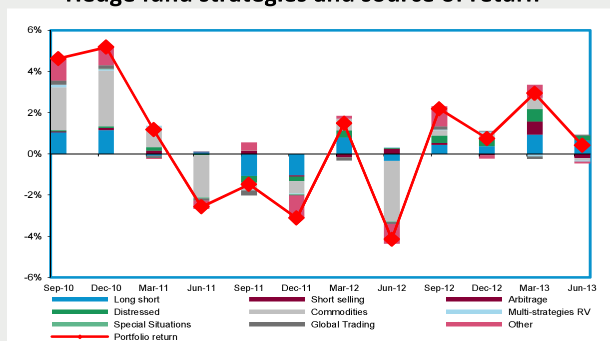
Relative returns [#1]



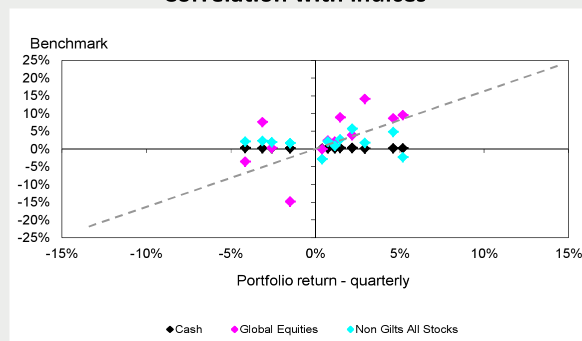
Monthly relative returns [#2]



Hedge fund strategies and source of return [#6]



Correlation with indices [#7]



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	-0.9	2.6	-0.1
Benchmark	1.5	6.2	6.5
relative	-2.3	-3.4	-6.2

Source: Data provided by WM Performance Services, and MAN.

- Commentary on the performance drivers from MAN has not been received in time for this report. The 'source of return' and monthly returns chart above are not updated.

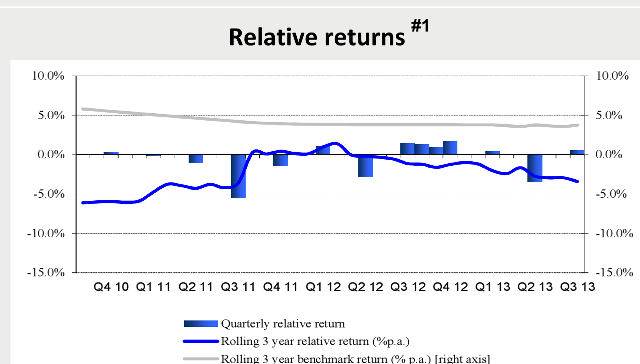
5.9 Signet – Fund of Hedge Funds

Mandate	Benchmark	Portfolio Volatility (3 yr p.a.)	Inception Date
Fund of Hedge Funds	3 month LIBOR +3.0%	4.8%	August 2007

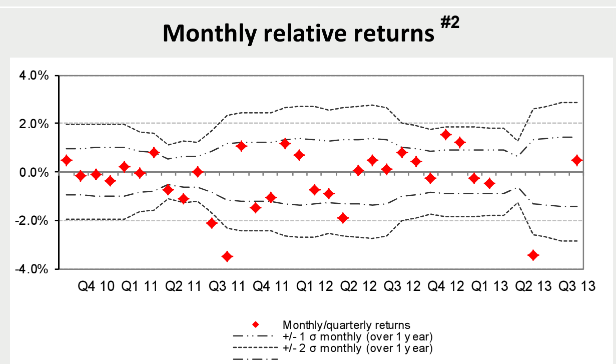
Reason in Portfolio	Reason Manager Selected
To reduce the volatility of the Growth portfolio and increase diversification	■ Niche fixed income strategy focus ■ Established team with strong track record ■ Complemented other funds in portfolio

Value (£'000)	% Fund Assets	Number of Funds
£65,903	2.1	N/A

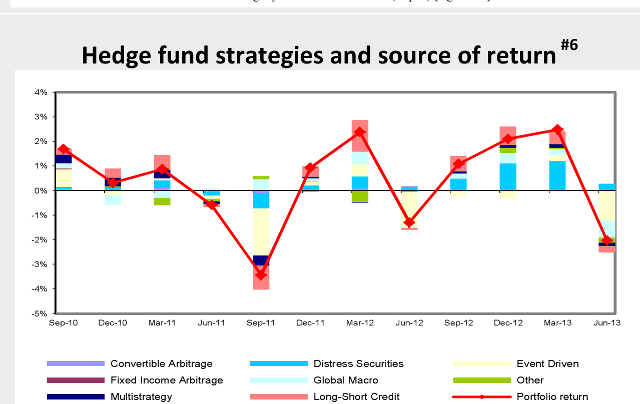
Relative returns #1



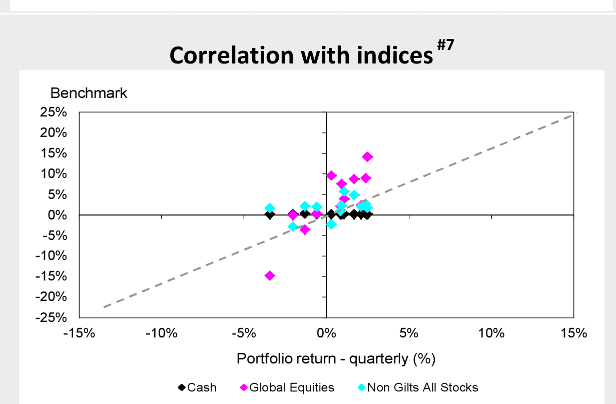
Monthly relative returns #2



Hedge fund strategies and source of return #6



Correlation with indices #7



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	0.7	1.8	0.3
Benchmark	0.9	3.5	3.8
relative	-0.2	-1.6	-3.3

Source: Data provided by WM Performance Services, and Signet.

Comments:

- Commentary on the performance drivers from Signet has not been received in time for this report. The 'source of return' chart above is not updated.
- There is little correlation between this Fund and cash or non gilt bonds, but a weak correlation with global equities. This suggests that this Fund acts as a good diversifier to other asset classes.

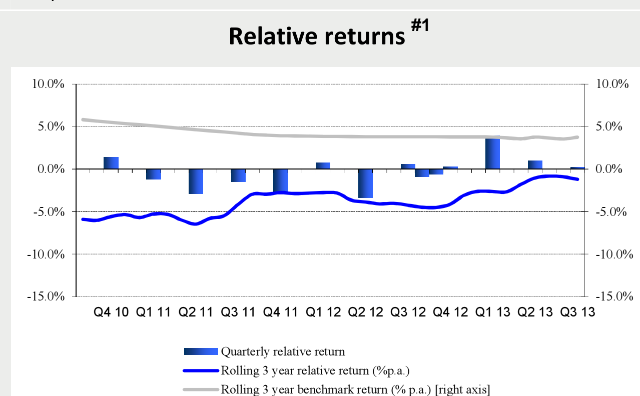
5.10 Stenham – Fund of Hedge Funds

Mandate	Benchmark	Portfolio Volatility (3 yr p.a.)	Inception Date
Fund of Hedge Funds	3 month LIBOR +3.0%	3.5%	August 2007

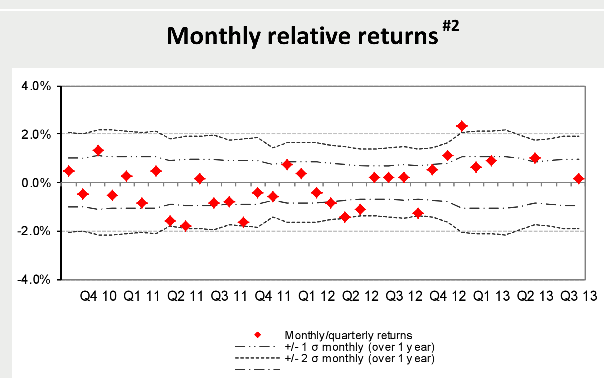
Reason in Portfolio	Reason Manager Selected
To reduce the volatility of the Growth portfolio and increase diversification	■ Focussed multi-strategy approach, concentrating on long / short equity, global macro and event driven strategies ■ Established team, strong track record at selecting managers ■ Complemented other funds in portfolio

Value (£'000)	% Fund Assets	Number of Funds Over The Period
£35,966	1.1	17

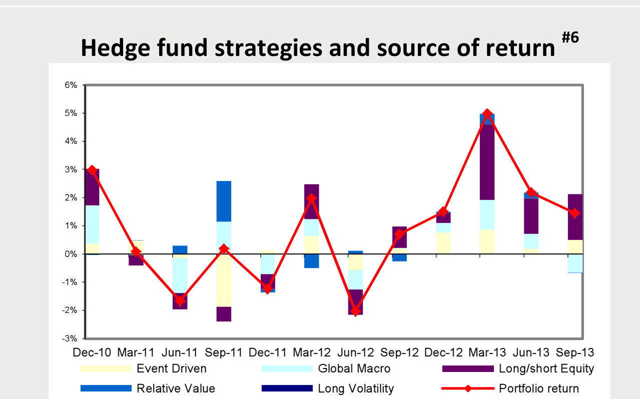
Relative returns [#1]



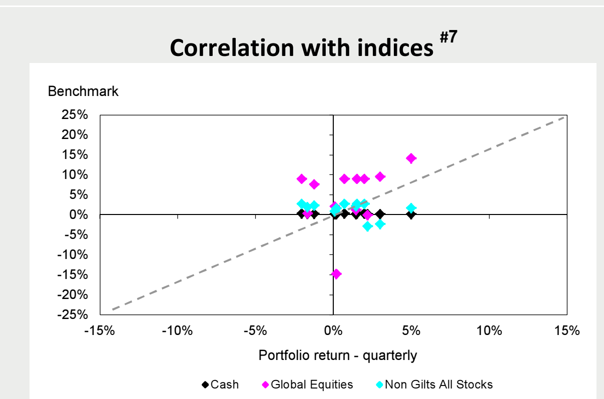
Monthly relative returns [#2]



Hedge fund strategies and source of return [#6]



Correlation with indices [#7]



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	1.1	9.1	2.5
Benchmark	0.9	3.5	3.8
Relative	+0.2	+5.4	-1.2

Source: Data provided by WM Performance Services, and Stenham.

Comments:

- Stenham has recently changed the focus of its business strategy, focussing away from growing its institutional business to focus on existing investors and strategic acquisition and joint venture projects.
- There has been stronger performance since Stenham adopted a more positive outlook and returned to confidence in fundamentals as a driver of returns. Stenham have outperformed their target over one year but are still behind over the three year measure.
- The positive contribution to performance came from Event Driven (0.5%) and Long/short Equity (1.6%) strategies. Long Volatility was neutral while Global Macro (-0.7%) and Relative Value (-0.01%) contributed negatively.
- The allocation to the Global Macro and Long / Short Equity strategies made up 70.0% of the total Fund allocation. The allocation to Cash remained the same over the quarter.
- The number of funds have remained the same at 17.
- There is no clear correlation between this Fund and cash, global equities or non gilt bonds. This suggests that this Fund acts as a good diversifier to the Avon Pension Fund's other asset classes.

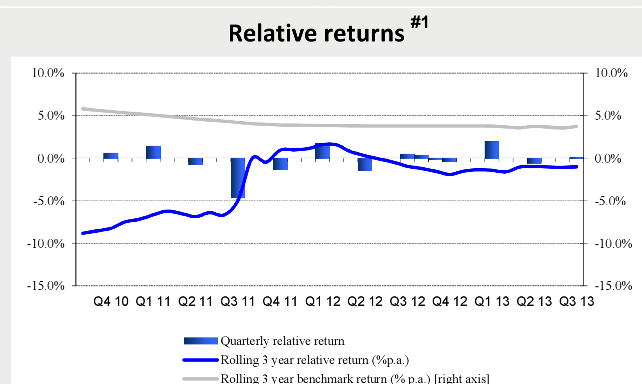
5.11 Gottex – Fund of Hedge Funds

Mandate	Benchmark	Portfolio Volatility (3 yr p.a.)	Inception Date
Fund of Hedge Funds	3 month LIBOR +3.0%	2.7%	August 2007

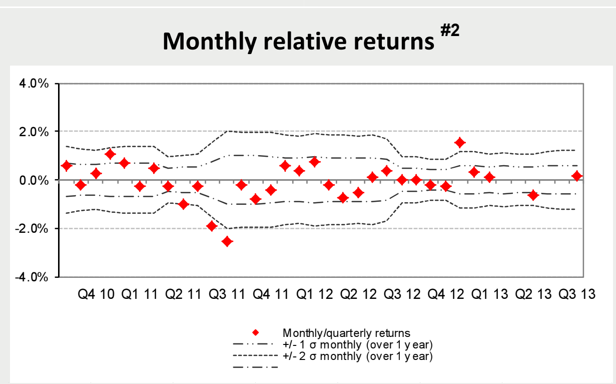
Reason in Portfolio	Reason Manager Selected
To reduce the volatility of the Growth portfolio and increase diversification	■ Niche market neutral investment strategy ■ Established team, strong track record ■ Complemented other funds in portfolio

Value (£'000)	% Fund Assets	Number of Funds
£55,755	1.8	Not available

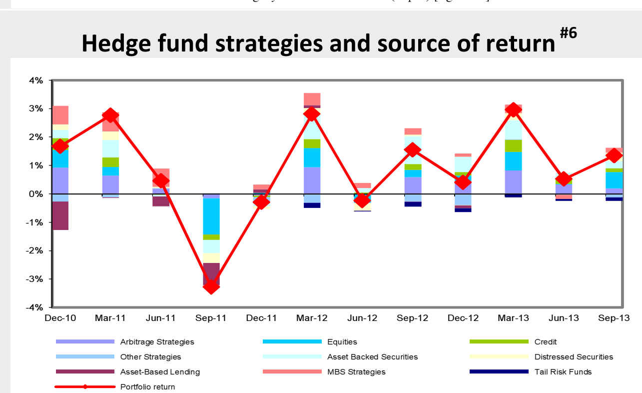
Relative returns #1



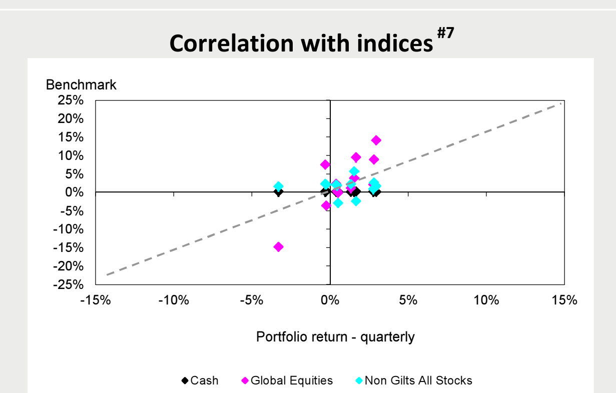
Monthly relative returns #2



Hedge fund strategies and source of return #6



Correlation with indices #7



Performance

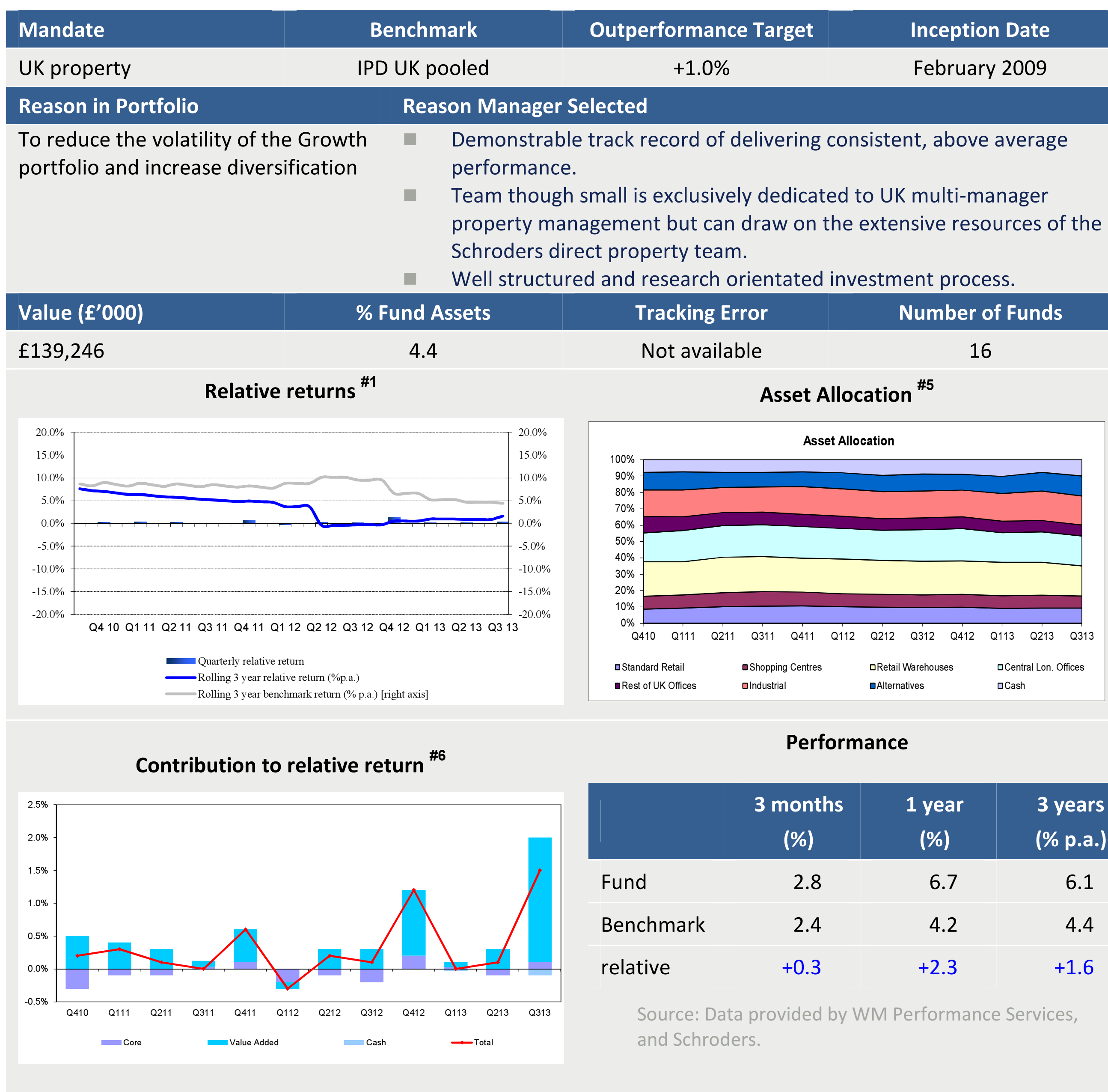
	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	1.0	4.5	2.7
Benchmark	0.9	3.5	3.8
relative	+0.2	+1.0	-1.0

Source: Data provided by WM Performance Services, and Gottex.

Comments:

- The Fund has a diverse range of strategy exposures, with continued major exposures to Asset Backed Securities, Mortgage Backed Securities and Fundamental MN Equity strategies. Allocations remained broadly in line with those in the previous quarter.
- Gottex have outperformed their target over 12 months but remain behind over 3 years.
- There is no clear correlation between this Fund and cash or non-gilt bonds, and a weak correlation with global equities. This suggests that this Fund acts as a good diversifier to the Avon Pension Fund's other asset classes.

5.12 Schroder – UK Property



Mandate	Benchmark	Outperformance Target	Inception Date
UK property	IPD UK pooled	+1.0%	February 2009

Reason in Portfolio

To reduce the volatility of the Growth portfolio and increase diversification

Reason Manager Selected

- Demonstrable track record of delivering consistent, above average performance.
- Team though small is exclusively dedicated to UK multi-manager property management but can draw on the extensive resources of the Schroders direct property team.
- Well structured and research orientated investment process.

Value (£'000)	% Fund Assets	Tracking Error	Number of Funds
£139,246	4.4	Not available	16

Relative returns #1

Asset Allocation #5

Contribution to relative return #6

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	2.8	6.7	6.1
Benchmark	2.4	4.2	4.4
relative	+0.3	+2.3	+1.6

Source: Data provided by WM Performance Services, and Schroders.

Comments:

- Schroder were appointed to manage UK Property on a segregated, multi-manager basis. The investments held within the underlying funds are primarily direct, although some managers might use listed securities for diversification.
- Over the quarter, the fund slightly outperformed the benchmark. As last quarter, the value add style funds made the greatest positive contribution to performance, with core funds detracting from relative returns.
- The West End continues to produce significant outperformance due to strong investment demand and moderate rental growth in the West End office market.
- The portfolio has outperformed its benchmark over all time periods and is exceeding its long term performance target.
- Cash in the portfolio was higher than normal at the quarter-end following redemption of the M&G UK Property Fund shortly before the quarter end. They plan to allocate the proceeds into Metro PUT, a new product targeting mispriced smaller assets. The holding of cash in anticipation of this purchase detracted slightly from relative returns over the quarter.
- They continue to be overweight in the office and industrial sectors and underweight in retail, although they expect opportunities to emerge in the retail sector in the coming years away from traditional high street shops.

5.13 Partners – Overseas Property

Reason in Portfolio	Reason Manager Selected
To reduce the volatility of the Growth portfolio and increase diversification	■ Depth of experience in global property investment and the resources they committed globally to the asset class. ■ The preferred structure for the portfolio was via a bespoke fund of funds (or private account) so the investment could be more tailored to the Fund's requirements.

- The mandate awarded to Partners by the Fund commenced in August 2009, although draw downs are being made gradually over time, and the full extent of the Fund's commitment has not yet been invested.
- Partners invest in direct, primary and secondary private real estate investments on a global basis.

Portfolio update

To date, Partners have drawn down approximately £105 million, or approximately 59% of the Fund's intended commitment of approximately £178 million. A total of £6.34 million was drawn down over the quarter, across all of the funds listed below apart from Asia Pacific and Emerging Market Real Estate 2009 and Global Real Estate 2008. The draw downs commenced in September 2009.

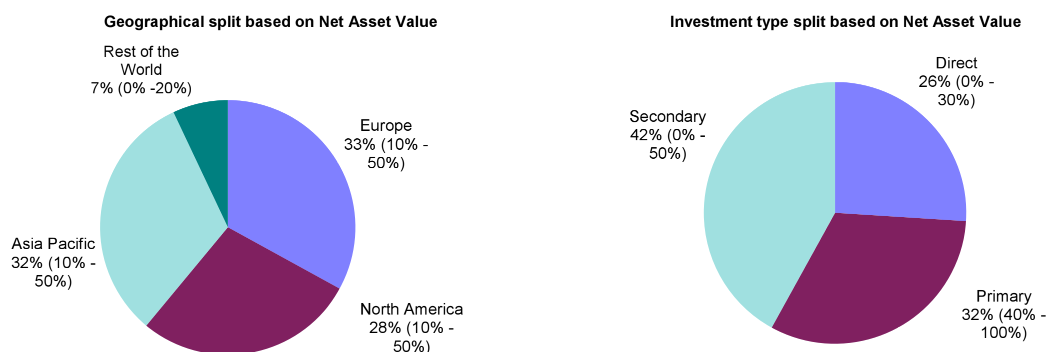
The funds invested to date have been split by Partners as follows:

Partners Fund	Net Drawn Down (£ Million)	Net Asset Value as at 30 September 2013 (£ Million)	Since Inception Net IRR
Real Estate Secondary 2009	14.15	14.91	11.9
Global Real Estate 2008	30.37	28.04	8.2
Asia Pacific and Emerging Market Real Estate 2009	11.98	12.25	7.7
Distressed US Real Estate 2009	14.76	13.33	10.2
Global Real Estate 2011	19.09	18.47	7.1
Direct Real Estate 2011	9.47	10.02	7.6
Real Estate Secondary 2013	3.40	3.22	n/a
Global Real Estate 2013	0.62	0.59	n/a
Total	**103.58**	**100.30**	**8.6**

Source: Partners. (adjusted for cash flows), the above is Partners' valuation as at 30 September 2013.

The Net IRR is as expected, and in line with the mandate expectation.

The investments in the funds noted above have resulted in a portfolio that was, as at 30 September 2013, split regionally as shown in the chart on the left below, and across different investment types as shown on the right. We show in brackets for each region the current guideline allocations to each region that are in place for the Fund's portfolio.



Source: Partners

The allocation to the geographical allocation and investment type remains similar to the previous quarter. Europe has increased by 2%, with Asia Pacific reducing by 2%.

The exposure to Primary has increased by a further 2% this quarter, but continues to be below the guidelines. Short-term deviation from the allocation restrictions in place are expected whilst the amount drawn-down is still significantly below target and we do not believe the current positioning to be of concern. In total, 50% of the commitments are allocated to primary investments.

Performance

Distributions since inception total £20.81m, with distributions worth £5.88m over the most recent quarter. Performance of Partners is lagged by 1 quarter. Over Q2 2013, the manager produced a return of 3.5% compared to the benchmark of 1.4%.

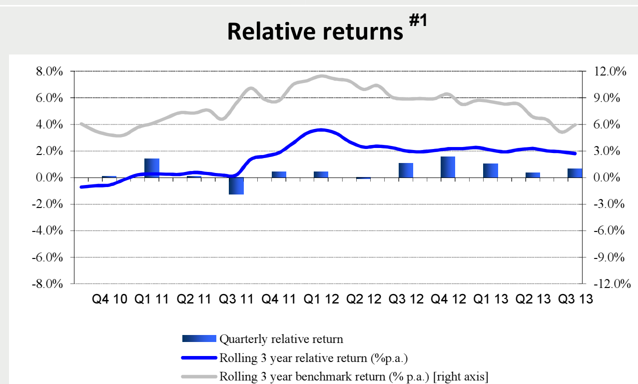
5.14 Royal London Asset Management – Fixed Interest

Mandate	Benchmark	Outperformance Target	Inception Date
UK Corporate Bonds	iBoxx £ non-Gilts all maturities	+0.8%	July 2007

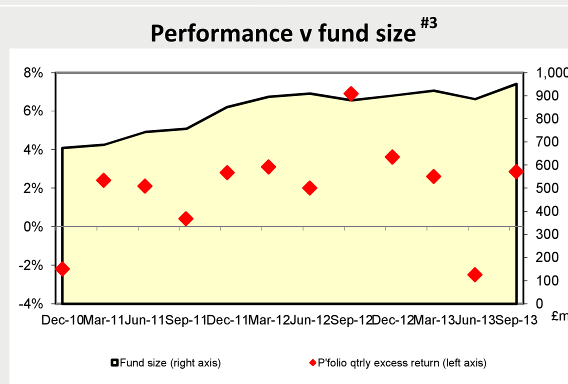
Reason in Portfolio	Reason Manager Selected
To maintain stability in the Fund as part of a diversified fixed income portfolio	■ Focused research strategy to generate added value ■ Focus research on unrated bonds provided a "niche" where price inefficiencies more prevalent ■ Product size means can be flexible within market

Value (£'000)	% Fund Assets	Number of Holdings
£196,005	6.2	266

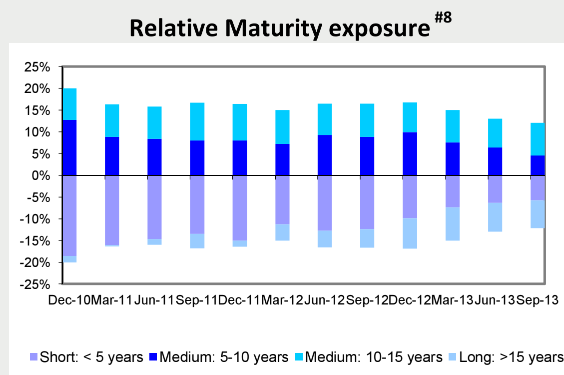
Relative returns [#1]



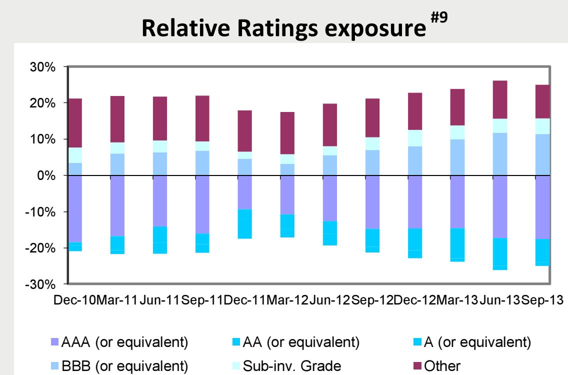
Performance v fund size [#3]



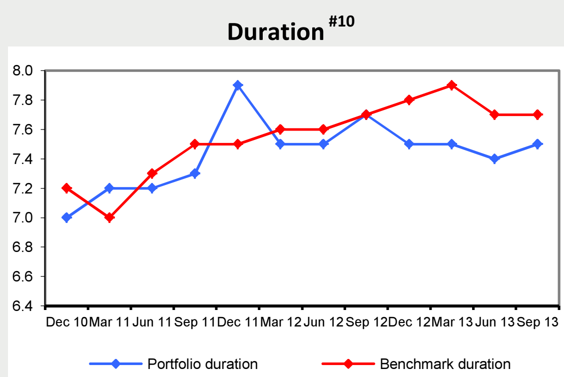
Relative Maturity exposure [#8]



Relative Ratings exposure [#9]



Duration [#10]



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	2.8	6.4	7.9
Benchmark	2.2	3.0	6.0
relative	+0.6	+3.4	+1.8

Source: Data provided by WM Performance Services, and RLAM

Comments:

- RLAM have maintained a consistent philosophy for some time - the Fund remains significantly underweight to AAA and to a lesser extent AA and A rated bonds, and overweight BBB and unrated bonds. This has benefited performance and resulted in significant outperformance at the high end of expectations for a mandate of this type.
- Similarly, RLAM favour medium term maturity bonds. This quarter they have moved to a less underweight position in long (over 15 year) bonds.
- Performance relative to the benchmark may be volatile in the short term due to RLAM's allocation to unrated bonds. These investments are not necessarily riskier or "junk status" and RLAM place their own rating on the bonds using their own research.

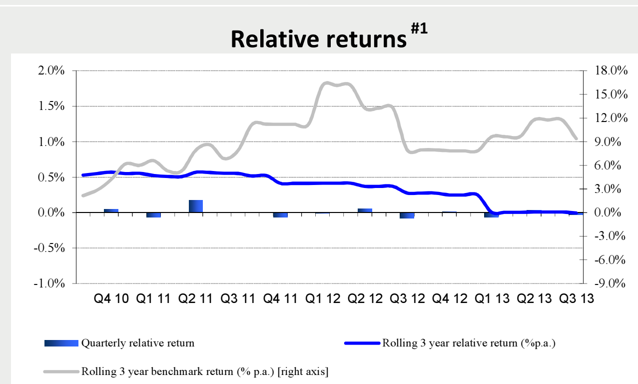
5.15 BlackRock – Passive Multi-Asset

Mandate	Benchmark	Outperformance Target	Inception Date
Passive multi-asset	In line with customised benchmarks using monthly mean fund weights	0%	April 2003

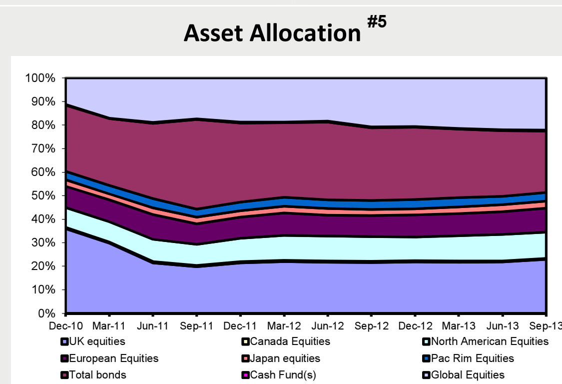
Reason in Portfolio	Reason Manager Selected
To provide asset growth as part of diversified portfolio	■ To provide low cost market exposure across multi asset classes ■ Provide efficient way for rebalancing between bonds and equities within a single portfolio

Value (£'000)	% Fund Assets
£1,430,170	45.2

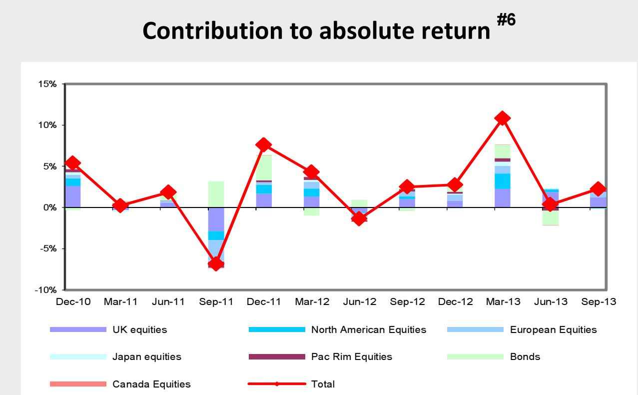
Relative returns #1



Asset Allocation #5



Contribution to absolute return #6



Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	2.2	14.2	9.3
Benchmark	2.2	14.3	9.4
relative	0.0	-0.1	-0.1

Source: Data provided by WM Performance Services, and BlackRock

Comments:

- Being a passive mandate, with a customised benchmark based on the monthly mean fund weights, there is nothing unusual arising in risk and performance.
- The magnitude of the relative volatility in the portfolio remains small.

5.16 BlackRock No.2 – Property account ("ring fenced" assets)

Mandate	Benchmark	Outperformance Target	Inception Date
Overseas property	Customised benchmarks using monthly mean fund weights	0%	September 2009

Reason in Portfolio	Reason Manager Selected
This portfolio was created to hold the assets intended for investment into Property.	■ BlackRock were the Fund's passive provider and 'swing fund' and offered the most efficient solution at the time the portfolio was created.

Value (£'000)	% Fund Assets
£51,032	1.6

Relative returns [#1]

Performance

	3 months (%)	1 year (%)	3 years (% p.a.)
Fund	1.2	6.1	7.0
Benchmark	1.2	5.7	6.8
relative	0.0	+0.4	+0.1

Source: Data provided by WM Performance Services, and BlackRock

Comments:

- Over the quarter, the Fund's holding in Cash decreased by 6.7%. This was invested in UK Equities (+2.8%), UK Gilts (+2.5%) and US Equities (+1.3%).
- UK Gilts and UK Equity Futures generated positive absolute returns, while US Equities generated a negative return.

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It is important to understand that this is a snapshot, based on market conditions and gives an indication of how we view the entire investment landscape at the time of writing. Not only can these views change quickly at times, but they are, necessarily, generic in nature. As such, these views do not constitute advice as individual client circumstances have not been taken into account. Please also note that comparative historical investment performance is not necessarily a guide to future performance and the value of investments and the income from them may fall as well as rise. Changes in rates of exchange may also cause the value of investments to go up or down. Details of our assumptions and calculation methods are available on request.

Appendix 1: Market Events

Asset Class	What happened?	
	Positive Factors	**Negative Factors**
UK Equities	■ The new BoE Governor, Mark Carney, in his forward guidance policy reaffirmed his commitment to maintain rates at low levels at least until unemployment falls below 7%. ■ The UK economy posted a strong quarter in Q2, with growth at 0.7%. This was led by construction and manufacturing, suggesting recovery in the economy continues. ■ According to Markit and the Chartered Institute of Purchasing & Supply, August 2013 Purchasing Managers' Index (PMI) rose to a two-and-a-half year high of 57.2, up from July's figure of 54.8. ■ UK equity dividend yields remain comfortably in excess of government bond yields while UK equities remain the cheapest developed equity market globally on a P/E (price to earnings) basis.	■ The UK trade deficit doubled in the month of July to £3.1 billion from £1.3 billion in June, due to falling exports to countries outside European Union. ■ The equity market continues to be nervous about the extent to which the US Federal Reserve will "taper" its programme of asset purchases. ■ Towards the end of the quarter, markets became concerned about a possible escalation of the conflict in Syria that could destabilise the wider region.
Overseas Equities:		
North America	■ The US Federal Reserve refrained from any tapering of QE and assured the markets that a hike in interest rates will follow only when jobless rate falls below 6.5% and the outlook for inflation is no higher than 2.5%. These comments led to a decrease in the 10-Year Treasury bond yield by 15 basis points and equity markets touching a new high. ■ The underlying fundamentals in terms of consumer spending, housing and business confidence are slowly improving, making equities look inexpensive. ■ Positive earnings growth and accelerating economic momentum suggest stronger performance from US equities.	■ Uncertainty over the starting date of Fed's "taper" of quantitative easing, and concerns over potential conflict in Syria, led to a fall in the US equity markets. ■ Revised US GDP forecasts by the Fed reflected a decrease in the growth rate by 0.3%. The GDP is set to increase by 2.0% to 2.3% in 2013, down from a June projection of 2.3% to 2.6% growth. ■ Though employment figures look reassuring, the rate of growth in jobs and the quality of new jobs remains a concern. ■ The acrimonious debate on the raising of the debt ceiling is a growing cause for concern.

Asset Class	What happened?	
	Positive Factors	**Negative Factors**
Europe	▪ The Eurozone emerged from an 18 month recession in the second quarter, as GDP grew by 0.3% for the 17-nation currency area. Germany and France showed the strongest signs of recovery with Q2 growth rates of 0.7% and 0.5%, respectively. ▪ Business activity in the Eurozone, as measured by the Purchasing Managers' Index (PMI), rose to its highest level since June 2011. ▪ The European Central Bank President, Mario Draghi, assured the markets that the ECB would be willing to extend its long-term bank lending programme in order to keep short term interest rates low. ▪ The ECB left its main refinancing rate at a historic low of 0.5%, staying true to its commitment to keep rates at current or lower levels for "an extended period".	▪ Standard and Poor's Ratings Services downgraded Italy's sovereign credit rating by one notch, citing the country's worsening economic prospects. S&P lowered the country's rating two levels above junk territory, from BBB+ to BBB. ▪ IMF estimates see the output gap peaking in 2013 at 3%, as unemployment rates remained at an all time high of 12.1% in the month of August. Youth unemployment continued to edge higher, up from 23.3% a year ago to 23.4%. ▪ According to the IMF, Greece has a shortfall of €11 billion cash in its second bailout and Eurozone governments need to fill half of that gap before the end of this year.
Japan	▪ Japan's consumer price index has now risen for three consecutive months, rising at the fastest pace in almost five years in August 2013, by 0.9%. This represents good progress towards achieving the targeted annual inflation of 2% in the next two years. These rises have fuelled hopes that the economy is pulling out of deflation. ▪ Japan's economy expanded at an annualised rate of 3.8% in Q2, largely driven by strong consumer spending. This shows the benefits of Mr Abe's reflationary policies and the Bank of Japan's aggressive monetary stimulus.	▪ In an attempt to ease the nation's colossal debt, Mr Abe has confirmed the raising of sales tax to 8% in April 2014 and further to 10% in Oct 2015, from 5% as of today. Although this increase will be paired with new stimulus spending, economists fear that this move will derail the nascent economic recovery in the short term. ▪ Slowing growth in emerging markets is affecting demand for exports, whilst a weaker yen has hit importers.
Asia Pacific	▪ In an attempt to boost economic growth, the Reserve Bank of Australia (RBA) cut interest rates by 0.25% to a record low of 2.5%. ▪ Upbeat Chinese trade and inflation data brought cheers to the Asian equity markets. August inflation was benign at 2.6% while export growth of 7.2% created the highest August trade surplus for the country since 2008.	▪ Rising capital costs and currency depreciations have negatively affected most Asian economies. Those with large current account deficits such as India have fared particularly poorly, seeing their currencies depreciate significantly. ▪ Slower commodity demand from key economies such as China still affects the wider region.

Asset Class	What happened?	
	Positive Factors	**Negative Factors**
Emerging Markets	▪ Buying opportunities can be seen in emerging markets as equity valuations look cheap after recent falls. ▪ Higher consumer demand from the developed economies, coupled with a weak currency, is supporting the growth of emerging economies which are export oriented.	▪ During the quarter, we have seen emerging economies struggle with weak currencies and dependency on foreign capital inflows to fund their current-account deficits. ▪ Mexico has cut its 2013 GDP growth forecast to 1.8%, down from the 3.1% that was forecast back in July, on the back of an unexpected drop of 0.7% in the Q2 GDP figures. ▪ Most emerging market economies are still facing some headwinds due to inflation pressures and are raising their interest rates to combat high prices. Brazil has raised its interest rates for the fourth time since April, while Indonesia has raised interest rates to the highest level since 2009.
Gilts	▪ With the release of the August Inflation Report, the MPC adopted formal forward rate guidance, stating that it did not intend to increase interest rates until the unemployment rate has fallen to at least 7%.	▪ Gilt yields continued to rise until the final week of the quarter, with the 10-year yield peaking at a two year high above 3% due to the growing view that the Federal Reserve would begin to 'taper' its monthly asset purchases.
Index Linked Gilts	▪ Post a positive response for the new 2068 index-linked gilts, the Debt Management Office (DMO) has offered to issue an extra £750 million of inflation-linked bonds over the current financial year.	▪ In an environment where central banks are able to control inflation within a target range, there is a limited upside to the return expectations on these instruments.
Corporate Bonds	▪ Spreads over Government Bonds remained 'tight' over the quarter and prices have tended to follow movements in Government bonds. ▪ Corporations continue to maintain healthy balance sheets.	▪ The corporate bond market still suffers from a lack of liquidity while uncertainty looms over a rise in the interest rate.
Property	▪ Commercial real estate values rose for the fourth straight month in August 2013. The retail sector saw growth for the first time since October 2011. ▪ Mortgage approvals in the UK rose to a five year high in July 2013. Demand in housing is supported by policy measures such as the Funding for Lending Scheme and Help to Buy. ▪ The construction PMI grew at the fastest pace in six years in August 2013 amid a revival in the housing market, adding to signs the economic recovery is gaining traction.	▪ Over H1 2013, 77,686 homes were approved for construction which is still well short of the 220,000 per year needed to meet housing demand.

Economic statistics

	Quarter to 30 September 2013			Year to 30 September 2013		
	UK	Europe[1]	US	UK	Europe[1]	US
Real GDP growth	0.8%	n/a	n/a	1.5%	n/a	n/a
Unemployment rate	7.7%	11.1%[4]	7.3%	7.7%	11.1%[4]	7.3%
Previous	*7.8%*	*11.2%*	*7.6%*	*7.9%*	*10.7%*	*7.8%*
Inflation change[2]	0.7%	0.1%	0.4%[4]	2.7%	1.1%	1.5%[4]
Manufacturing Purchasing Managers' Index	56.7	51.1	56.2	56.7	51.1	56.2
Previous	*52.5*	*48.8*	*50.9*	*48.4*	*46.1*	*51.5*
Quantitative Easing / LTRO[3]	£375bn	€1,018bn	$3,539bn	£375bn	€1,018bn	$3,539bn
Previous	*£375bn*	*€1,018bn*	*$3,284bn*	*£375bn*	*€1,018bn*	*$2,694bn*

Source: Thomson Reuters, market, Institute for Supply Management, Eurostat, United States Department of Labor, US Bureau of Economic Analysis. All figures to 30 September 2013 unless otherwise stated. "Previous" relates to data as at the previous quarter or year end.

(1) 15 Country Euro area; (2) CPI inflation measure; (3) Refers to amounts announced and therefore ignores changes due to debt maturing. LTRO refers to the European Central Bank's Long Term Refinancing Operation; (4) As at Aug 2013.

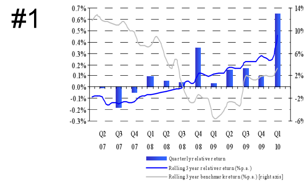
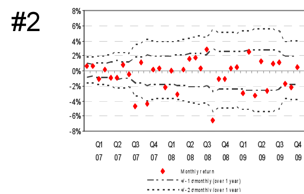
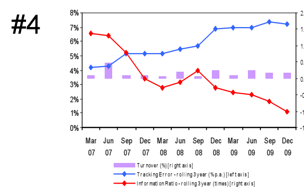
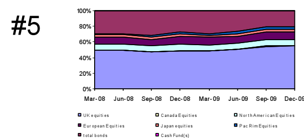
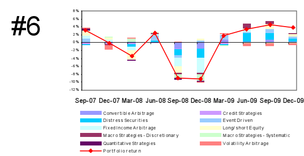
Appendix 2: Glossary of Terms

Term	Definition
Absolute Return	The actual return, as opposed to the return relative to a benchmark.
Annualised	Figures expressed as applying to 1 year.
Bond Assets	Assets held in the expectation that they will exhibit a degree of sensitivity to yield changes. The value of a benefit payable to a pensioner is often calculated assuming the invested assets in respect of those liabilities achieve a return based on UK bonds.
Growth Assets	Assets held in the expectation that they will achieve more than the return on UK bonds. The value of a benefit payable to a non-pensioner is often calculated assuming the invested assets in respect of those liabilities achieve a return based on UK bonds plus a premium (for example, if holding equities an equity risk premium may be applied). The liabilities will still remain sensitive to yields although the Growth assets may not.
Duration	The weighted average time to payment of cashflows (in years), calculated by reference to the time and amount of each payment. It is a measure of the sensitivity of price/value to movements in yields.
Funded Liabilities	The value of benefits payable to members that can be paid from the existing assets of the plan (i.e. those liabilities that have assets available to meet them).
High Yield	A type of bond which has a lower credit rating than traditional investment grade corporate bonds or government bonds. These bonds pay a higher yield than investment grade bonds.
Market Statistics Indices	The following indices are used for asset returns: UK Equities: FTSE All-Share Index Overseas Equities: FTSE AW All-World ex UK UK Gilts (>15 yrs or >20 yrs): FTSE Brit Govt Fixed Over 15 (or 20) Years Index Corporate Bonds(>15 yrs AA): iBoxx £ Corp 15+ Years AA Index Non-Gilts (>15 yrs): iBoxx £ Non-Gilts 15+ Years Index Index Linked Gilts (>5yrs): FTSE Brit Govt Index Link Over 5 Years Index Hedge Funds: CS/Tremont Hedge Fund Index Commodities: S&P GSCI Commodity GBP Total Return Index High Yield: Bank Of America Merrill Lynch Global High Yield Index Property: IPD Property Index (Monthly) Cash: 7 day London Interbank Middle Rate Price Inflation: All Items Retail Price Index Earnings Inflation: UK Average Weekly Earnings Index - Whole Economy excluding Bonuses
Market Volatility	The impact of the assets producing returns different to those assumed within the actuarial valuation basis, excluding the yield change and inflation impact.

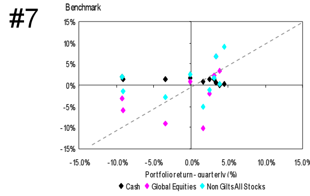
Term	Definition
Mercer Gilt Yield	An estimate of the yield available on a notional portfolio of UK Government conventional gilt stocks whose cashflows approximately match the Fund's estimated benefit cashflows
Money-Weighted Rate of Return	The rate of return on an investment including the amount and timing of cashflows.
Non-Pensioner Liability	The value of benefits payable to those who are yet to retire, including active and deferred members.
Pensioner Liability	The value of benefits payable to those who have already retired, irrespective of their age.
Relative Return	The return on a fund compared to the return on another fund, index or benchmark. For IMAGE purposes this is defined as: Return on Fund less Return on Index or Benchmark.
Scheme Investments	Refers only to the invested assets, including cash, held by your investment managers.
Surplus/Deficit	The estimated funding position of the Scheme. This is not an actuarial valuation and is based on estimated changes in liabilities as a result of bond yield changes, asset movements and, if carried out, output from an asset liability investigation (ALI). If no ALI has been undertaken the estimate is less robust.
Three-Year Return	The total return on the fund over a three year period expressed in percent per annum.
Time-Weighted Rate of Return	The rate of return on an investment removing the effect of the amount and timing of cashflows.
Unfunded Liabilities	The value of benefits payable to members that cannot be paid from the existing assets of the Scheme (i.e. those liabilities that have no physical assets available to meet them). These liabilities are effectively the deficit of the Scheme.
Yield (Gross Redemption Yield)	The return expected from a bond if held to maturity. It is calculated by finding the rate of return that equates the current market price to the value of future cashflows.

Appendix 3: Glossary of Charts

The following provides a description of the charts used in Section 6 and a brief description of their interpretation.

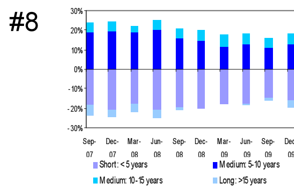
Reference	Description
#1 	This chart shows the quarterly relative return (blue bars) and rolling 3 year relative return (blue line) for the manager over 3 years/since inception. This shows the ability of the manager to achieve and outperform the benchmark over the medium term. The rolling 3 year benchmark absolute return (grey line) is overlaid to provide a context for relative performance, e.g. consistent underperformance in a falling market.
#2 	This chart shows the relative monthly returns for 3 years/since inception. It shows the level of fluctuation about the zero axis, i.e. the level of volatility of monthly returns and any tendency for positive or negative returns. The dotted lines show the standard deviation of returns over 1 year periods - this is a standard measure of risk which shows the magnitude of fluctuations of monthly returns. Under common **assumptions**, being within the inside dotted lines (i.e. 1 standard deviation) is roughly likely to occur 2/3rds of the time, while being within the outside lines is roughly likely to occur 1 in 20 times (i.e. 2 standard deviation - which is considered unlikely).
#4 	This chart shows the 3 year annualised tracking error (this is the standard deviation of returns which shows the magnitude of the fund returns compared to the benchmark) and the 3 year information ratio (this is the excess return divided by the tracking error). If tracking error increases, the risk taken away from the benchmark increases, and we would expect an increase in the excess return over time (albeit more variable). The turnover is provided to show if any increase in risk is reflected in an increase in the level of active management, i.e. purchases/sales in the portfolio.
#5 	This chart shows the absolute asset allocation or hedge fund strategy allocation over time. This helps to identify any significant change or trends over time in allocation to particular asset allocations/hedge fund strategies.
#6 	These charts show the breakdown of the return provided by each of the different hedge fund strategies or asset classes over time - this provides a profile of where the returns come from, and should be compared with the volatility chart above to see if risk taken is being rewarded accordingly. The total portfolio return is also shown.

#7



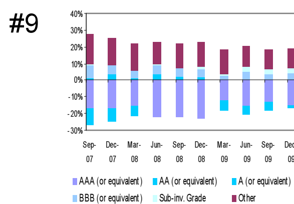
This chart plots the quarterly returns of the fund against quarterly returns of various indices. Any plots on the diagonal line represent the fund and the index achieving the same quarterly return - any below the line represents underperformance relative to the index, above the line represents outperformance. This is to highlight any apparent correlation between the fund returns and any particular index. If a fund is used as a diversifier from, say equities, we would expect to see a lack of returns plotted close to the diagonal line.

#8



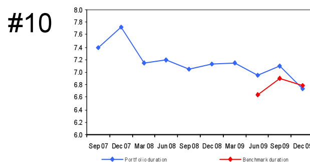
This chart shows the holding in short, medium and long maturity bonds relative to the benchmark. Over/underweight positions expose the fund to changes in the yield curve at different terms.

#9



This chart shows the holding in bonds with different credit ratings. AAA is the highest grading (usually for government or supranational organisation bonds) while below BBB is sub-investment grade and has a considerably higher risk of default. The lower the grade the higher the risk and therefore the higher the return expected on the bond.

#10



This chart shows the duration of the fund against the benchmark duration. It shows whether the fixed interest fund manager is taking duration bets against the benchmark.

Appendix 4: Summary of Mandates

Manager	Mandate	Benchmark	Outperformance target (p.a.)
Jupiter	UK Equities (Socially Responsible Investing)	FTSE All Share	+2%
TT International	UK Equities (Unconstrained)	FTSE All Share	+3-4%
Invesco	Global ex-UK Equities Enhanced (En. Indexation)	MSCI World ex UK NDR	+0.5%
Schroder	Global Equities (Unconstrained)	MSCI AC World Index Free	+4%
SSgA	Europe ex-UK Equities (Enhanced Indexation)	FTSE AW Europe ex UK	+0.5%
SSgA	Pacific inc. Japan Equities (Enhanced Indexation)	FTSE AW Dev Asia Pacific	+0.5%
Genesis	Emerging Market Equities	MSCI EM IMI TR	-
MAN	Fund of Hedge Funds	3M LIBOR + 5.75%	-
Signet	Fund of Hedge Funds	3M LIBOR + 3%	-
Stenham	Fund of Hedge Funds	3M LIBOR + 3%	-
Gottex	Fund of Hedge Funds	3M LIBOR + 3%	-
BlackRock	Passive Multi-asset	In line with customised benchmarks using monthly mean fund weights	0%
BlackRock	Overseas Property	Customised benchmarks using monthly mean fund weights	0%
RLAM	UK Corporate Bond Fund	iBoxx £ non-Gilts all maturities	+0.8%
Schroder	UK Property	IPD UK pooled	+1.0%
Partners	Global Property	IPD Global pooled	+2.0%
Cash	Internally Managed	7 day LIBID	

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Bath & North East Somerset Council		
MEETING:	**AVON PENSION FUND INVESTMENT PANEL**	
MEETING DATE:	**15 NOVEMBER 2013**	**AGENDA ITEM NUMBER**
TITLE:	**INFRASTRUCTURE ALLOCATION**	
WARD:	ALL	
AN OPEN PUBLIC ITEM		
List of attachments to this report: Appendix 1 – JLT Infrastructure Report		

1 THE ISSUE

1.1 The revised investment strategy allocates 5% of assets to infrastructure within the "growth" or return seeking portion of the Fund. The allocation is funded by a reduction in the allocation to hedge funds.

1.2 Following the September Panel meeting Hermes gave an educational presentation on infrastructure. This report builds on that session. JLT's report (Appendix 1) sets out the main drivers of infrastructure as an investment opportunity, the issues to be considered when investing in infrastructure and a proposed investment framework that will meet the Fund's investment objective.

1.3 The Panel are asked to recommend the proposed framework to be presented at the December committee meeting for approval. There will be a pre-Committee meeting session for Committee members that wish to understand JLT's report in greater detail.

2 RECOMMENDATION

That the Panel

2.1 **Recommends the proposed policy framework (in section 6) be presented to the Committee for approval at the December 2013 committee meeting.**

2.2 **Agrees to delegate the tender process to Officers who will consult the Panel as required.**

3 FINANCIAL IMPLICATIONS

3.1 There is provision in the 2013/14 budget for investment advice relating to investing in infrastructure.

4 BACKGROUND

4.1 The Fund's revised investment strategy agreed in March 2013 included a new allocation to Infrastructure of 5% of Fund assets.

4.2 An allocation to infrastructure meets the Fund's investment objectives as follows:

(1) Provides a source of returns as part of growth portfolio

(2) Reduces risk and increases diversification of returns within the investment portfolio

(3) Provides predictable income with a link to inflation

(4) Can generate income to meet the Fund's cashflow requirements

4.3 The proposed framework identifies how the investment in infrastructure should be structured to best achieve these objectives, and represents the start of the process to implement the allocation to infrastructure.

5 INVESTING IN INFRASTRUCTURE

5.1 JLT's report at Appendix 1 restates the role of infrastructure in the Fund, the characteristics of infrastructure investments, how investors can access infrastructure investments and the issues to consider.

5.2 The report recommends the framework as set out in Section 6 below.

5.3 It should be noted that an investment in Infrastructure attracts higher levels of manager fees than other more traditional asset classes, as the process of making investments in unlisted infrastructure is more resource intensive than equity or bond mandates. Expectations for fee levels are discussed in JLT's report.

5.4 The proposed framework delegates all decisions to invest in individual infrastructure assets or projects to the appointed investment manager. The investment manager will decide whether the Fund invests in local infrastructure projects, determined by any such project meeting the investment criteria set by the manager. The manager's evaluation of all projects will be based on the risk return characteristics of each project and the role each project plays in the portfolio to diversify and manage overall risk. For this reason, there is no specific allocation for investment in local infrastructure.

5.5 Infrastructure is potentially the asset class for which environmental, social and governance ('ESG') factors form an intrinsic part of the investment analysis that evaluates each particular project. For example, construction is expected to utilise the best technology to ensure efficient buildings complying with latest environmental regulations – not doing so represents certain risks to the portfolio.

Therefore a specialist ESG fund is not required to ensure these factors are considered.

6 PROPOSED POLICY FRAMEWORK

6.1 To meet the strategic objectives of the Fund, the proposed investment in infrastructure should incorporate the following characteristics:

(1) Target a return of gilts +2.5% p.a., as set out in the SIP; (this is currently equivalent to a 7% return p.a. over the long term)

(2) Invest in an unlisted fund investing in unlisted infrastructure assets, based on the low correlation with equity markets and to take advantage of the illiquidity premium;

(3) Implement a global mandate giving the infrastructure manager the discretion to select where investments are made (geographically) to take advantage of all opportunities based on the risk/return characteristics of each deal (albeit with an expectation that the majority of exposure is in developed markets and in core investments)

(4) Invest across core, value-add and opportunistic assets to ensure a steady and predictable yield whilst still meeting the return target of gilts +2.5%;

(5) Diversify across sectors to reduce sector concentration risk within the portfolio;

(6) Allow greenfield investments in addition to brownfield in order to meet return target of gilts +2.5% p.a.

(7) Allow debt to be considered under manager discretion for effective risk management of the portfolio.

(8) To be managed by a single investment manager either in a direct / co-direct fund structure or a fund of funds structure

7 ISSUES NEEDING FURTHER CONSIDERATION

7.1 **Tender Process:** As infrastructure investing is often implemented via a private investing model, the investment may be made via pooled funds, which would mean OJEU requirements are not applicable. The flexibility of a non-OJEU process could be beneficial in this instance where it will be necessary to evaluate a broad range of potential tender responses. In addition, the Fund will want to consider all fund raising opportunities, not just those funds raising funds at the time of the tender. However, the Fund will apply the same level of rigour to the tender analysis and evaluation even if the OJEU process is not applied.

7.2 **Potential collaboration:** In addition, Officers will consider the potential to collaborate with other LGPS funds that are looking to invest in infrastructure with a view to sharing some of the costs of the selection process. Any collaboration will not impact the mandate specification or evaluation criteria chosen by the Fund.

7.3 **Implementation:** Implementation of the tender process will be delegated to Officers, who will consult the Investment Panel as required.

8 RISK MANAGEMENT

8.1 The Avon Pension Fund Committee is the formal decision-making body for the Fund. As such it has responsibility to ensure adequate risk management processes are in place. It discharges this responsibility by ensuring the Fund has an appropriate investment strategy and investment management structure in place that is regularly monitored. The creation of an Investment Panel further strengthens the governance of investment matters and contributes to reduced risk in these areas.

9 EQUALITIES

9.1 An equalities impact assessment is not necessary as the report contains only recommendations to note.

10 CONSULTATION

10.1 N/a

11 ISSUES TO CONSIDER IN REACHING THE DECISION

11.1 This report is for information only.

12 ADVICE SOUGHT

12.1 The Council's Monitoring Officer (Divisional Director – Legal and Democratic Services) and Section 151 Officer (Divisional Director – Business Support) have had the opportunity to input to this report and have cleared it for publication.

Contact person	Liz Woodyard, Investments Manager 01225 395306
Background papers	
Please contact the report author if you need to access this report in an alternative format	

Avon Pension Fund

Infrastructure concept report

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1 Introduction

This report has been provided for the Avon Pension Fund ('the Fund') by JLT Employee Benefits ('JLT') following the investment strategy review earlier in 2013 which resulted in the agreement that an investment in infrastructure should be made, targeting 5% of the Fund's overall portfolio. The purpose of this report is to restate the rationale for including infrastructure within the Fund's investments, and explain the characteristics of the various options available within the infrastructure universe.

We believe that infrastructure assets are a genuine alternative to global equities and diversified growth funds ('DGFs') as part of a pension scheme's growth strategy, and should be embraced in a disciplined framework to form a core part of a pension scheme's overall investment strategy. The diversification away from typical equity markets and the predictable, index-linked cashflows that are available from infrastructure investments have attracted inflows from institutional investors. The return profile is also particularly attractive to those defined benefit pension schemes which have/are expected to become cashflow negative in the near future, such as many of the Local Government Pension Schemes ('LGPS').

The Fund does not currently invest in infrastructure and so an allocation will diversify its growth assets from current holdings in UK and overseas equity funds as well as fund of hedge funds and property alongside the new allocation to DGF's. Infrastructure is evolving as an asset class and will continue to evolve over time and any approach taken by the Fund will need to take this into account. We would also refer you to our glossary of terms that are specific to infrastructure investing in section 7.

Throughout this report, we will be referring to infrastructure equity – the real assets; infrastructure debt – the bonds that are issued to finance the purchasing of the real assets; and, listed equity – the assets available for purchase on stock markets. For the avoidance of doubt, when equity is referred to throughout the report, it will be pre-fixed with either infrastructure or listed.

Summary of conclusions

During the investment strategy review that was conducted in 2012 and 2013, the following extracts from the Fund's Statement of Investment Principles ('SIP') were highlighted:

1. Investment objective
The investment objective is to achieve a return on the assets, consistent with an acceptable level of risk that will enable the Fund to meet its pension liabilities over time, that is, to achieve 100% funding in line with the funding strategy. The investment strategy must therefore generate returns that will help stabilise and minimise employer contribution rates in the long term as well as reflect the balance between maximising returns consistent with an appropriate level of risk, protecting asset values and matching liabilities. The investment strategy will reflect the Fund's appetite for risk and its willingness to accept short term volatility within a longer term strategy.
3. Asset allocation and expected long term returns on investment
The Committee is responsible for setting the strategic asset allocation for the Fund which in turn must be consistent with the investment return assumed in the funding strategy. The investment strategy reflects the medium to long term nature of the liabilities but must also provide flexibility to manage short term volatility in markets. In addition, the investment strategy must take account of possible changes to cash flows as the membership profile of the Fund or the benefits structure changes. The investment strategy reflects the differing return and risk profiles of each asset class. However, long term expectations are not consistently generated over all time frames and, for all asset classes, there can be periods of under or out performance compared to the long term expectations.

Source: Avon Pension Fund Statement of Investment Principles

When looking to appoint an infrastructure manager, it is important that the objectives of the appointed manager(s) are consistent with the objectives highlighted in the SIP. In reference to these objectives, this report concludes that:

- **Expected return:** An investment in infrastructure can produce a sufficient return over the long term consistent with that required by the Fund to meet its liabilities:
  - The SIP defines this expected return from infrastructure as the return on Gilts + 2.5% p.a.;
  - The majority of the investment should be in infrastructure equity rather than debt to meet these objectives:
    - Although discretion to invest in debt should be allowed to manage risk;
  - Investment across all stages (e.g. greenfield, brownfield, fully operational) will need to be considered to meet the target returns;
  - There should be an ability to seek opportunities at a global level rather than just in the UK;
  - There should be an ability to source opportunities across the risk spectrum to target the optimal risk / return profile.
- **Risk reduction and diversification:** Investment in infrastructure can offer real diversification benefits to investing in listed equities and other growth assets:
  - There are genuinely different drivers for the returns from infrastructure investment compared to investing in equities and other growth asset classes;
  - This is expected to provide diversification from equity investment and from other growth asset classes;
  - However, investment should be in unlisted (i.e. not quoted on the stock market) infrastructure projects to achieve the required level of diversification.
- **Interest rate and inflation risk:** Infrastructure does not provide an immediate direct link to the long term interest rates and inflation expectations that cause volatility in the value placed on the liabilities in the way that, for example, an index-linked gilt does:
  - However, the relatively predictable (compared to equities, for example) cashflows that are often linked to inflation provide a link over the long term to the nature of the Fund's liabilities.
- **Cashflow risk:** An investment in infrastructure can help the Fund to meet its cashflow requirements:
  - The strategic review showed that the Fund will need to use an increasing amount of investment income and possibly the sale of assets to meet the cashflow requirements arising from its liabilities;
  - Whilst infrastructure is illiquid, it is expected to produce investment income over the medium to long term:
    - Just because an asset is liquid, it does not mean it is suitable to regularly meet the Fund's cashflow requirements, as it could result in selling assets at a relative low point.

Next steps

Infrastructure forms a key part of the Fund's revised investment strategy. Following this report, we recommend that the next steps taken are to:

- Decide upon the broad criteria for any manager search(es);
- Consult with other LGPS regarding any potential collaboration to align any similar search activity and potentially share costs;
- Undertake any manager search(es);
- Update the Fund's SIP to reflect any changes in investment strategy, including the production of a letter to satisfy Section 36 of the Pensions Act 1995. This letter consolidates the investment advice that is required to be taken from an individual who is authorised by the Financial Conduct Authority ('FCA') to give advice.

Within this report we do not provide wider advice on the overall asset allocation or on the Scheme's other assets, as these were provided in the 2012 investment strategy review.

2 The infrastructure concept

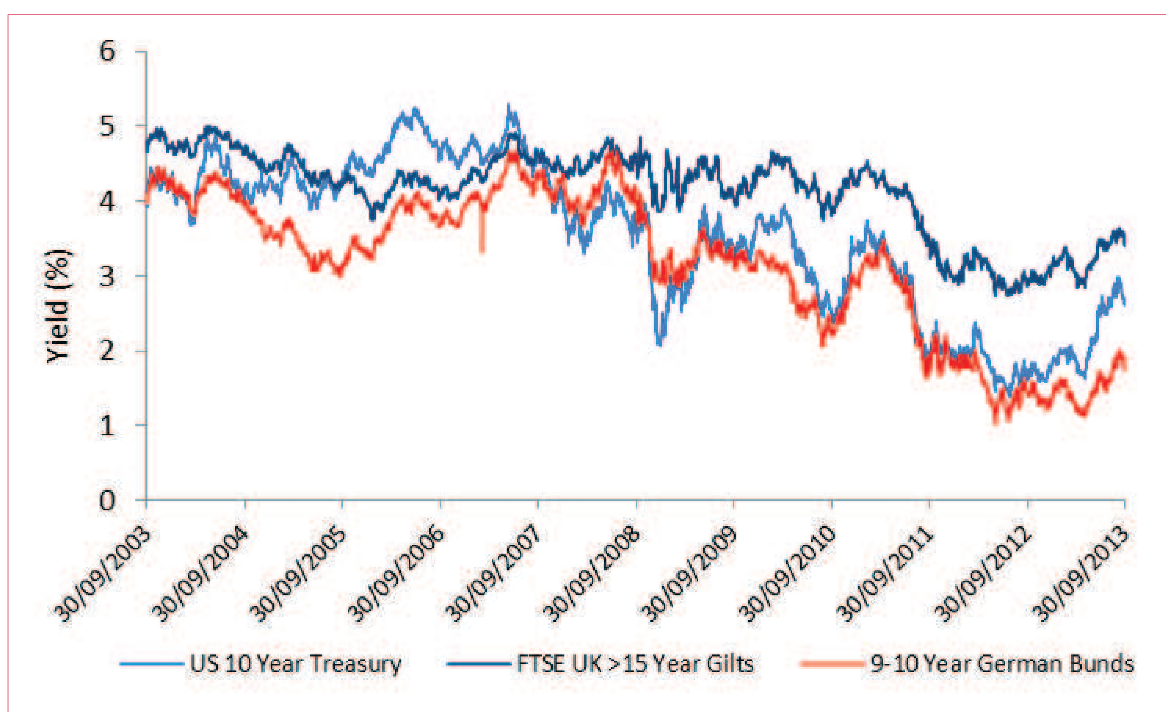
2.1 What is infrastructure?

As an asset class, infrastructure has a very broad remit and can encompass anything from an individual hospital or prison, all the way through to a wind turbine, oil pipeline or water company. As diverse as these assets may seem, they do in fact have some features in common, which is how we define infrastructure. We believe that infrastructure assets are assets which are essential within the global environment, often operating within regulated sectors, and providing monopolistic-like opportunities to allow long-term operating contracts with secure revenue streams.

Infrastructure has come to the forefront of private investments in recent times for a variety of different reasons. With the increasing population worldwide, and the rise in those moving out of poverty and into the middle classes, there has become a much greater need for infrastructure on a global basis to further facilitate growth. Whilst in developed regions there is also a need to some extent to replace and/or upgrade existing infrastructure assets which are no longer as efficient or demand has increased since original construction.

The UK Government's National Infrastructure Plan, November 2011, highlights over 500 projects 'in pipeline' that will require investments of more than £200bn by 2020. When the figures are looked at on a global scale, the gargantuan size of the investment requirement becomes clear. A 2007 OECD report estimates that the total spending requirement for world infrastructure to 2030 (incl. additions and renewals) is over $71 trillion. Despite this, there has been a significant shortfall in the funding as a result of the 2008 financial crisis, and governments worldwide cutting back on expenditure. As a result, the private sector has taken up some of this shortfall. Investors are required to take on certain risks but, most importantly, it is the capital that institutional investors are able to deploy, and the long term nature with which they can make allocations, that has led to the opportunity for pension schemes to invest in infrastructure.

Another side effect of the financial crisis in 2008 has been the flight to safety of many investors. This severely reduced the yields of government bonds around the world, as can be seen in the graph below.



Source: Bloomberg, JLT Employee Benefits

With yields at near historic lows, pension schemes and other investors around the world have turned to alternative assets to meet the yield requirements of their portfolio. Yield and stable cashflows are two of the characteristics which make infrastructure such an attractive investment opportunity to pension schemes.

As well as the search for yield that investors have been undertaking, there is the need to hedge liabilities against the possibility of future inflation rises. Whilst this can be done through index-linked bonds, the market for these is very small relative to the inflation-linked part of the UK pension schemes' liabilities.

The demand for these index-linked bonds, can be seen with the recent issuance of UK Index-linked gilts which was more than twice oversubscribed which drives up the price and further depresses the gilt yield. There is also a corporate index-linked bond market; however, this is still very small with about 70 UK companies having c. £35bn in issue.

As such, we believe that pension schemes need to look elsewhere for index-linked cashflows, and infrastructure fits into this category.

2.2 Drivers of return

The drivers of return for infrastructure assets are somewhat different to those of typical equity assets. A number of these are explained below:

- Assets are monopolistic in nature, with high barriers to entry:
  - This is beneficial for an investor, as the assets are more likely to remain in use, with less competition – making the cashflow more predictable over time.
- Economies of scale:
  - These can be achieved throughout the construction phase of an infrastructure project, as well as in the operation and management of the asset. It enhances the return to the investor.
- Inelastic demand for services:
  - This allows for greater returns for the investor, as an increase in price of a service would not typically lead to a corresponding drop in usage;
  - It therefore also means that there is less inherent volatility than, for example, the equity market which is heavily driven by business and consumer sentiment.
- Regulation of infrastructure sector:
  - Typically, infrastructure assets are within sectors which are highly regulated (such as water companies). This strong regulation increases the certainty of returns and makes them more predictable.
- Period of time that the asset is operational:
  - The majority of fixed costs of the assets are needed in the early stages of the projects life. However, the factors noted provide greater certainty of the cashflows over the longer term.
- Inflation-linked income:
  - Many sub-sectors of infrastructure have contracts in which revenue is directly linked to inflation. Any increases in inflation would therefore lead to a corresponding increase in the payments received, hence providing a link to the liability profile of the Fund.
- Foot fall:
  - Assets are able to generate additional revenue if the foot fall is greater than that which was forecast. This links the returns to how the economy is faring. However, it is important to note that infrastructure managers tend to prefer availability payment mechanisms (fixed payments that do not depend on the level of usage), as they prefer certainty of returns as opposed to the potential variability in returns from changes in foot fall.

The above shows that the drivers of returns of infrastructure show some genuinely different characteristics compared to equities. Whilst some of these drivers between these asset classes will be correlated, there is genuine diversification from equities in making an investment in infrastructure. It is still necessary to take risk, as explained later, to achieve the required equity like returns over the longer term, but the diversification helps to address a key objective of the Fund's investment strategy, of reducing risk.

2.3 Risks associated with investments into infrastructure

There are inherent risks with infrastructure investing that are very different to that of an investment in a typical equity fund. A description of the most common risks in infrastructure investing are provided below;

- Reputational risk:
  - An example would be adverse media coverage following an operational malfunction. Such potential risks can be mitigated as far as possible by having the correct governance in place, to ensure these errors do not occur.
- Operational risk:
  - Operational risks can be more of an issue if the fund does not have a controlling stake in the asset, as they would not be responsible for the management. As long as those with a controlling stake install the correct management, and the business is well governed, these risks can be managed.
- Political risk:
  - This is a very important risk to consider when investing in infrastructure, as an unstable political economy, with exposure to unstable regulation, could have a major impact on the returns of an asset.
- Financing risk:
  - Given that infrastructure managers use leverage on a deal basis when investing in infrastructure, there is a risk involved with having to re-finance at higher costs at a future date. In addition the infrastructure manager will need to manage the financial risk when planning an exit from an asset.
- Construction risk:
  - Construction risk is applicable during the initial phase of development as often there are a lot of unknown factors in relation to the build time and the cost. This can have a severe effect on the return of the asset, as its effective life could be greatly reduced. This construction risk explains why greenfield investments are typically higher up the risk-return spectrum.
- Throughput risk:
  - This is a risk that would be specific to a certain asset, and would arise if the forecasted expectation of use was less than estimated prior to investment. Infrastructure managers typically like to invest in such assets on an availability payment basis, whereby they are paid a fixed amount irrespective of usage. Whilst this may reduce the potential returns of a high use, successful asset, it allows for more stable, predictable cashflows.
- Counterparty risk:
  - Similar to the throughput and construction risks, this is a risk that is specific to an individual asset. This would arise from one of the stakeholders (typically the asset operator) breaking a contract that had been agreed upon. This is minimised through due diligence that would be carried out by the infrastructure manager prior to any investment being made.

2.4 Sub-sectors

The table below looks at the various sub-sectors that are within the infrastructure sector. The characteristics within table are discussed fully in section 4. A description of each of the sub-sectors, and the types of investment within each is considered after the table.

	Capital intensive	High barriers to entry	No demand risks	Regulated	GDP correlated	Monopolistic	Direct inflation linkage*	Long term offtake contracts**
Water and wastewater infrastructure	✓	✓	✓	✓	×	✓	✓✓	×
Gas and electricity transmission	✓	✓	✓	✓	×	✓	✓✓	✓
Toll roads	✓	✓	✓/×	×	✓	×	✓	×
Airports	✓	✓	×	✓/×	✓	×	✓	×
Oil/gas/chemical storage	✓	✓	✓	✓	×	×	✓	✓
Car parks	✓	✓	×	✓/×	✓	×	×	×
Ports	✓	✓	×	×	✓	×	×	×
Rail	✓	✓	✓/×	✓/×	✓/×	×	✓	×
Telecommunications	✓	✓	✓/×	✓/×	×	✓/×	×	×
Renewables	✓	✓	✓/×	✓/×	×	×	✓✓	✓/×
Social infrastructure	✓	✓	✓	✓/×	×	×	×	✓

Source: First State, JLT Employee Benefits

* ✓✓ - strong, direct inflation linkage; ✓ - some inflation linkage; × - no inflation linkage

** an agreement between a producer of a resource/service and a buyer, to purchase/sell units of future production.

In summary, there is significant diversity between the characteristics of the different infrastructure sub-sectors. We believe that all of these sub-sectors are appropriate for the Fund when considering an infrastructure investment, as each deal within each sub-sector will be unique, and the infrastructure manager should have the ultimate discretion when it comes to portfolio construction, albeit with certain concentration and risk limits, and diversification requirements. An infrastructure manager would not invest in a sub-sector unless there was sound investment reasoning behind it and this should be evaluated during any selection process.

Water and wastewater infrastructure

The provision and management of water and wastewater facilities are typically highly regulated. As such, these assets offer more visible and predictable cashflows and return, and are operated on a monopolistic basis with very high barriers to entry. The cashflow profiles of these assets are usually linked to inflation, and they typically have capital investment programmes that are taking place on a long term basis.

Gas and electricity transmission

Typically, these assets have been operated and provided by the state; however, more recently there has been an increase in supply from the private sector. One such example of this is the increase in Master Limited Partnership ("MLP") investment opportunities in North America. A MLP is a publically traded limited partnership, that typically invests in the transportation and processing of oil and gas. The benefit of investments such as these is that they typically have stable operating cashflows, and low correlation to both equities and commodities.

Toll roads

When it comes to the operation of toll roads, there are a number of different structures which can be used. These include:

- Pay for use – each driver pays a toll for use of road;
- Shadow toll – government contribution for each driver who uses the toll road;
- Availability payments – government contributions, but no traffic risk.

A toll road investment normally involves taking a stake in the toll road operating company, which then owns, operates and maintains the asset. The benefits of a toll road investment in the long-term include inflation linked cashflows with limited operational risk. Typically, an infrastructure manager would prefer to receive availability payments, as this transfers the traffic risk onto the government, providing a more visible cashflow profile of the asset.

Airports

Similar to toll roads, an investment in an airport would typically be made through the operating company which owns, operates and maintains the assets according to the terms of a government lease. Unlike toll roads they have a more diversified income stream with income from air travel as well as retail and property. This reduces the volatility of the asset, though airports are still highly correlated with GDP and passenger growth/capacity.

Oil/gas/chemical Storage

An investment in oil, gas or chemical storage would typically comprise of owning the physical assets such as pipelines, storage tanks, or the vaporisers required for safe storage of liquefied natural gas. Revenues within this sector are normally generated from long-term capacity utilisation agreements, and can be heavily regulated if the chemical or commodity is viewed as strategically important within the region the infrastructure is required.

Investments within this sector can provide long-term inflation linked cashflows with the opportunity of capital growth.

Car parks

Within car parks, there are two very different sectors; on street and off street. On street parking is typically a very labour intensive operation, with low margins, whereas off street parking is capital intensive and often requires the ownership of the physical infrastructure on an outright basis (or long-term concession contract), dependent on the geographic location.

Similar to the cashflow profile of airports, car parks are highly correlated to GDP, but they also offer strong inflation linked cashflows.

Ports

An investment in a port typically involves taking a stake in the physical assets that are required for the handling of cargo to and from commercial vessels. The revenue of ports is often supported by transport and export companies taking out long term leases of berths and container facilities within the port. Ports also offer the prospect of capital growth and income diversification from developing land surrounding the port facilities.

The monopolistic nature of ports means they offer an attractive investment opportunity in certain circumstances, and there is also portfolio diversification from unique, long term cash flows whilst remaining correlated to GDP.

Rail

Rail investments are a very popular investment for infrastructure managers, and they usually comprise investments in the physical assets on which the rolling stock is run, both passenger and freight services. Revenue from rail services is often supported by rail companies entering into long term agreements for use. Due to the very high barriers to entry, and regulation within the rail sector, the assets are typically monopolistic in nature, although face tough substitution competition from other forms of transport.

Telecommunications

An investment in telecommunications would involve purchasing the physical assets such as underground cables or wireless towers. The cashflow profile is typically not linked to inflation, and the investment relies more on capital growth for returns. This capital growth is achieved as a result of the business proving it is able to generate stable revenues and risk management.

There is the risk within the telecommunications sector that other infrastructure assets do not normally face in their expected life, of becoming obsolete as technology advances and as innovation occurs within the sector.

Renewables

Given the tariffs that have been available to those who invest, this has been a relatively high growth area for infrastructure managers in the last few years. The pre-defined tariffs and regulations within industries such as wind and solar energy allow managers to obtain visibility of their cashflows into the future, which are also linked to inflation. Typically, these types of assets are also uncorrelated with economic cycles.

As well as solar and wind power, we have also seen interest around biomass, geothermal and hydroelectric energy. Investments such as these fit very well alongside environmental, social and corporate governance ('ESG') and socially responsible investing ('SRI') policies.

Social infrastructure

Social infrastructure includes the construction and operation of hospitals, schools and prisons, and may include social housing. Historically, these typically used to be provided by the public sector, but are now increasingly being provided in partnership with the private sector. These assets tend to be more longer term in nature than other infrastructure assets, and typically have a lower return profile – although do typically come with lower risk.

Social housing

Social housing is essentially the provision of affordable accommodation to people on low incomes. In the UK there are approximately 1,700 housing associations covering around 2.5 million homes. However, a social housing study conducted by Barclays in Q3 2012 estimates that there is unsatisfied demand for a further 1.8 million homes.

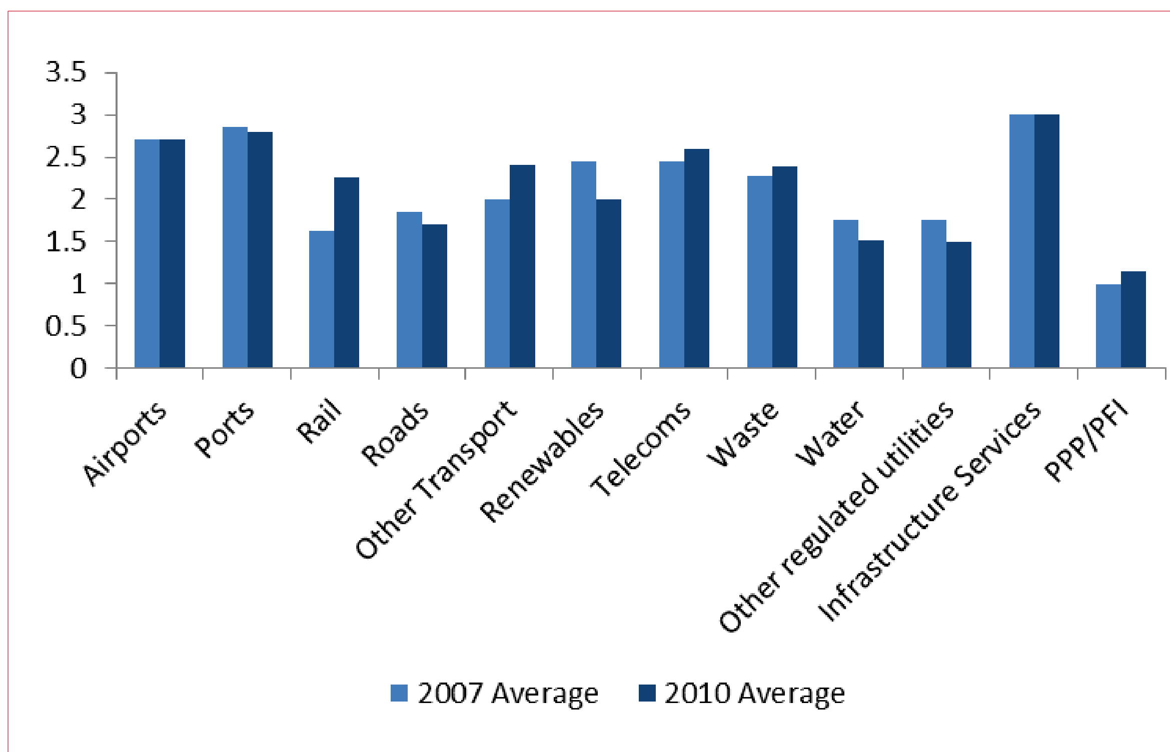
When referring to social housing, it is important to know exactly what it is we are referring to, as social housing could fit in different parts of a portfolio based on the way exposure is gained. There are three primary ways that exposure is gained:

- Index-linked social housing bonds are typically bonds issued by the housing associations in order to build, develop or maintain their social housing projects. As such, we would suggest these are categorised within a bond portfolio. The Fund's Corporate Bond portfolio with Royal London currently invests in bonds issued by housing associations.
- A development partnership is a direct investment via a special purpose vehicle in a housing association that is usually fully leveraged. These funds would typically be used to build new homes, and as such there are significant risks that need to be taken into account such as construction risk and other risks surrounding the development phases of the project. These do, however, offer investors greater potential returns, but we believe these would not fit in a core infrastructure portfolio and are rather more like private equity investments in nature.
- A sale and leaseback approach to investing in social housing would involve purchasing the existing assets of the housing association and then renting them back to the association over the long term. We believe that an investment such as this would fit within the property portfolio of the Fund, given the opportunities' characteristics. Schroder (who manage the Fund's UK Property portfolio) actively evaluate such opportunities as they arise.

Whilst there are many ways to invest in social housing and the index-linked characteristics that they have, we do not believe that they are suitable for an explicit allocation within an infrastructure portfolio. We believe that any investments into social housing should be left to the appointed infrastructure manager(s) discretion, based on whether the investment characteristics meet the investment strategy.

Relative sub-sector returns

The internal rate of return ('IRR' – see glossary) expectations from a survey by Deloitte for the different sub-sectors can be found in the graph below. These are not absolute IRR expectations, and are scaled from zero to three, with 3.0 being high and 0.0 low. As such, they will not tie-in with the IRR expectations within the table on page 17. This is one attempt at a direct comparison between the expectations for the returns of the different sub-sectors.



Source: Deloitte, The fork in the road ahead: An in-depth analysis of the current infrastructure funds market, 2011

There are two categories within the above chart which require further explanation as follows:

Infrastructure services are categorised as being the operational and management entities which are responsible for upkeep and maintenance of electricity transmission plants, gas and oil pipelines and renewable energy projects such as wind farms.

Public Private Partnerships ('PPP') are contractual agreements between public bodies, local authorities or central government, and private companies to deliver a public, social or economic infrastructure project. Private Finance Initiatives ('PFI') are a form of PPP developed by the UK government, whereby private companies carry out construction work and maintenance on projects, which are then rented back to the public sector.

3 The role of infrastructure within the Fund

3.1 Why invest in infrastructure?

There are a number of different reasons why infrastructure assets are relevant to Avon Pension Fund's strategy, the main ones include:

Diversification

Infrastructure assets can provide predictable cashflows and returns through all market cycles, which is more important with ever increasing market volatility. The assets and returns also have low correlations with global equity markets.

Inflation hedge & liability matching tool

Any increase in prices within an economy are often directly priced into the income of an infrastructure project due to the contracts underpinning the cashflows. Providing there is strong regulation, this is the case for assets on a global basis, as well as in the UK. This will offer protection against possible future increases in inflation. Whilst the Fund's liabilities are sensitive to UK inflation, an increasing globalised world means that UK inflation is increasingly influenced by global inflation and therefore exposure to global inflation is a reasonable proxy for the Fund's UK inflation sensitive liabilities. These cashflows make infrastructure ideal for matching the long-term inflation linked liabilities of the Fund.

Cashflows

These are usually predictable due to the monopolistic nature of the infrastructure assets. Large portions of the cashflows are agreed by the contract. High barriers to entry also help maintain stable cashflows over the length of the investment which assists a pension scheme investor with its cashflow management. Distributions to investors are often made quarterly or bi-annually.

Illiquidity premium

Due to the long-term nature of infrastructure assets, pension schemes are able to benefit from the lack of liquidity in this market. This goes hand-in-hand with the long term nature of pension scheme liabilities, particularly in the case of LGPS which remain open to new members and future accrual.

Responsible investing

In the same way that an active equity manager must take account of the risks from environmental, social and governance ('ESG') factors in assessing the opportunity a stocks presents, an infrastructure manager must also satisfy himself that these factors have been suitably taken into account when assessing a project. For example, construction is expected to utilise the best technology to ensure efficient buildings – not doing so represents certain risks to the portfolio. It is not expected that a specialist ESG fund is required to ensure these factors are considered.

3.2 The investment needs of the Fund

Income requirements

The need for income within the Fund is becoming more important given its cashflow negative position (excluding investment income). Infrastructure provides a very good return profile based on this need, as a large portion of the return (often c.50-70%) comes from income, with the remainder coming from capital appreciation of the underlying assets. This percentage is dependent upon the exact nature of the asset, as well as it's expected life time. This stable income can then be used rather than to sell assets in order to cover the Fund's cashflow requirements. Compare this to otherwise raising income by liquidating the Fund's equities: whilst equities are liquid, they are volatile which means relying on them to meet cashflow could result in selling at a relative low point and therefore compromising the Fund to meet its long term objectives.

The predictable, stable, cashflows generated by infrastructure assets are more often than not linked to inflation (CPI or RPI). These are an excellent hedge against potential inflation increases in the future. However, when looking at inflation-linked cashflows, it is important not to consider them in isolation. If the factors related to operating an asset are also tied to inflation, then the real cashflow may not in fact increase as expected.

Investment objectives

Therefore infrastructure meets the Fund's investment objectives as follows:

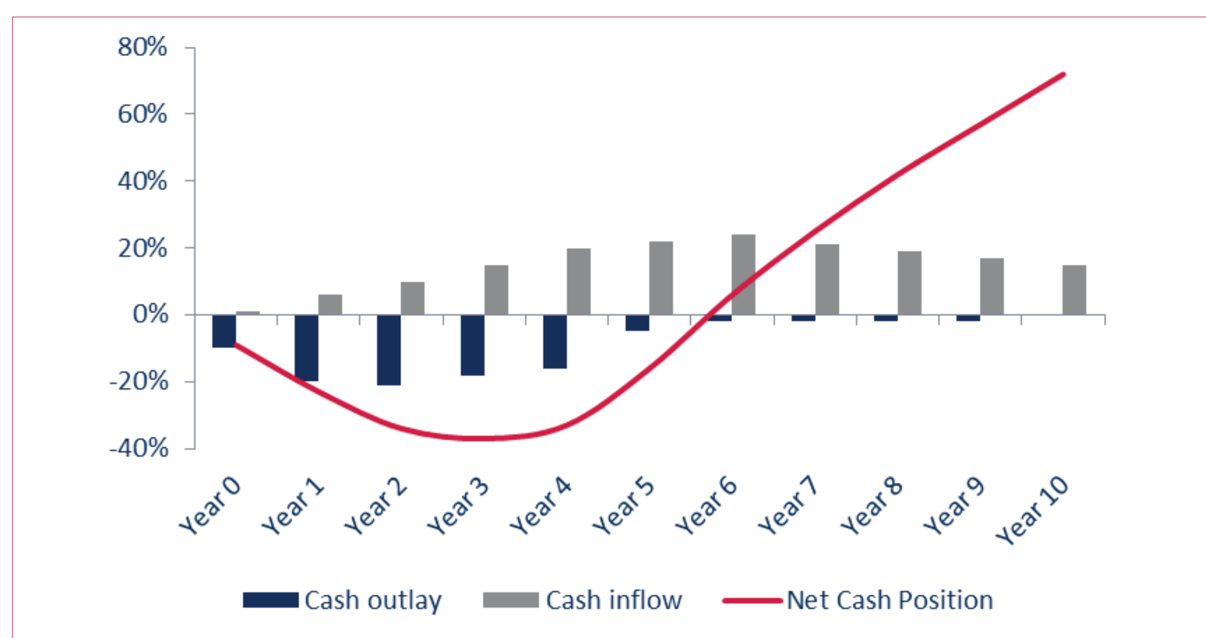
Required return	The requirement for infrastructure investment in the economy (both UK and overseas) and the need to attract capital from institutional investors means that an equity like return is possible from infrastructure investment, thus consistent with the Fund's required rate of investment growth from the assets. The level of return available is discussed in more detail in the next section. The previous sections also show how there are different drivers of returns for infrastructure compared to equities and it is reasonable that the Fund access as many opportunities as is reasonable possible.
Managing risk	Whilst some infrastructure projects can be as risky or even riskier than certain equity investments, the fact that there are different drivers of returns leads to genuine diversification and therefore there is an expectation that infrastructure will not be perfectly correlated to equities (i.e. it will not fall and rise at exactly the same time). Furthermore, diversification across different sub-sectors, different risk profiles and different regions will further enhance diversification.

Liability profile	The focus on stable, index-linked cashflows shows how an investment in infrastructure can help satisfy the need that the Fund's assets better reflect its liability profile. However, it should be remembered that the value of the infrastructure assets will not move directly inline with changes to the value placed on the liabilities (which are affected by long term interest rates and inflation expectations). Therefore whilst this investment is made with the liability profile in mind, it belongs in the growth rather than stabilising portfolio.
Liquidity profile	It is important to understand that an investment infrastructure can be extremely illiquid. Indeed, the "illiquidity premium" is expected to be a source of returns. However, it is sensible to allow part of the Fund to be invested in illiquid assets given the long term nature of the Fund's investment strategy. The Fund will require readily realisable assets and investment income to meet its cashflow needs – infrastructure is expected to help in the latter of these (investment income).

4 Characteristics of infrastructure investments

4.1 Private investment model

When investing in infrastructure, it is important to understand exactly how committed capital will be invested, as it is not as simple as investing in a traditional equity fund. Similar to investing in private equity structures (as per the Global overseas property mandate managed by Partners Group) the return profile will follow a j-curve, with investments being drawn down over a number of years, and the subsequent positive cashflow also taking a number of years to develop. The chart below shows the life of an infrastructure asset, from the construction phase with cash outflows to the operational phase with cash inflows. The chart is an example of how the j-curve works, with the blue bars representing cashflows into the investment (i.e. out of the Fund) in a particular year and the grey bars representing cashflows out of the investment (i.e. back into the Fund) in a particular year. The red line shows the net cash position at any particular point (i.e. the sum of the total cashflows in and out of the investment over the entire period to date).



Source: JLT Employee Benefits

By diversifying an investment between multiple infrastructure investments via a fund, the likelihood is the drawdown period and therefore cash inflow requirements will be ‘lumpy’. As such, cashflows will need to be carefully managed to minimise the need to realise assets from other parts of the Fund’s investment portfolio in order to meet any cash calls from the infrastructure investments.

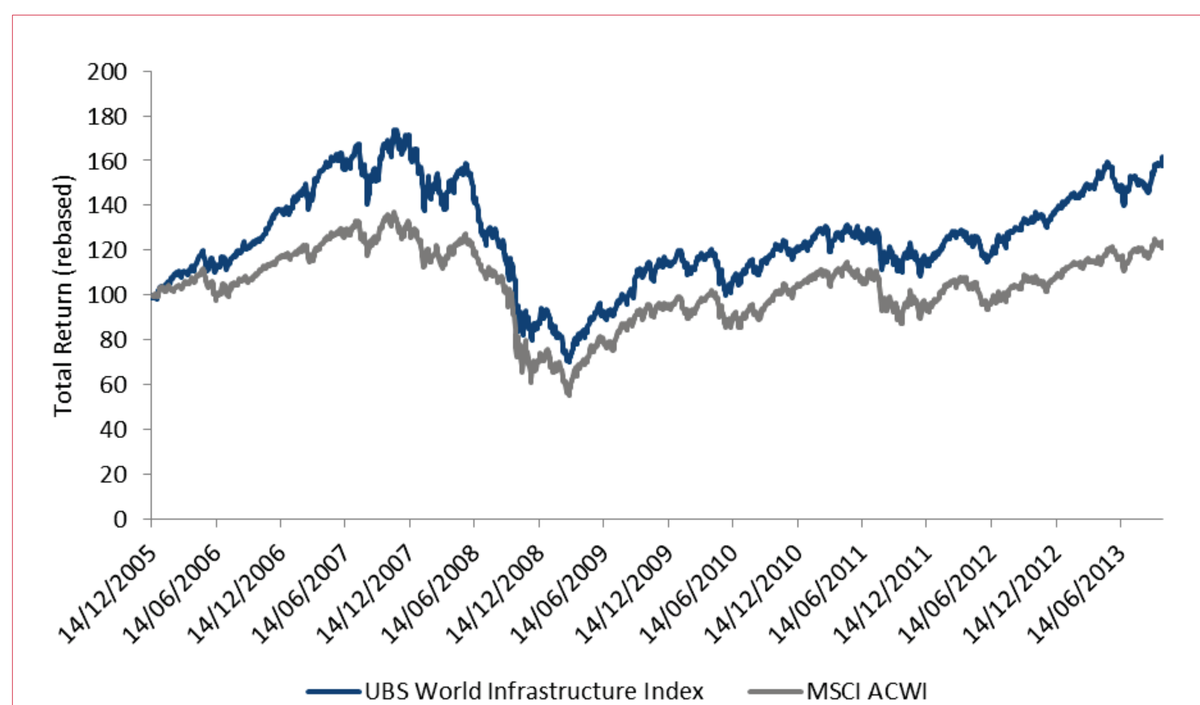
As well as investing via more than one fund, there are a number of different ways to invest in order to shallow out, and minimise the negative part of the j-curve in order to start receiving an instant yield (cash outflow). One approach is to invest in funds that are already past their first close, with one or two investments already made. Another way would be to invest in an open-ended fund, where there is already an existing pool of assets that the investor would receive a yield from. The third approach would be to invest into secondary funds, which would typically already have invested in assets, making the fund more visible. The difference between closed-ended and open-ended funds is looked at more closely in section 5.

4.2 Considerations when investing in infrastructure

Listed vs. unlisted

There are two main ways in which exposure to infrastructure can be gained; through either the listed or unlisted approach. The first fundamental decision that must be made is whether to invest via a listed or unlisted product. A listed product typically invests in the publically traded shares of infrastructure companies. This is an option which provides the most liquidity; however, listed infrastructure investments do typically have very high correlations with equity markets.

The graph below shows the returns of the UBS World Infrastructure Index, just one of a number of such listed infrastructure indices, against the MSCI All Counties World Index, with both being rebased on 14 December 2005.



Source: Bloomberg, JLT Employee Benefits

Although the UBS World Infrastructure Index has outperformed the MSCI ACWI over this period, there has been a correlation between the two indices of 0.85, so it does not really achieve one of the main aims of the infrastructure investment – to diversify the portfolio away from equities. As such, we believe that the best way to gain exposure to infrastructure assets is through private markets, where you can achieve better diversification along with the additional benefit from the illiquidity premium.

Equity vs. debt

Once the decision on whether to invest in a listed or unlisted product has been made, the next decision is whether to invest in equity (the real assets within a fund) or debt (the bonds issued to finance the purchase of assets) – if the unlisted approach is taken.

The reasons for investing in infrastructure equity have been set out in section 3 of this report and, whilst similar, there are a few different arguments for investing in infrastructure debt.

Infrastructure Debt is similar to equity in that the assets typically have a long life, which supports the long term nature of the Fund with its long term liabilities. The capital market dislocation of 2008 and the drying-up of bank funding for infrastructure debt vehicles has resulted in an increased risk adjusted return available to investors. As well as these factors (set out in section 3) which are analogous with the infrastructure equity, there is also the stability of ratings, with infrastructure debt typically having a strong historical rating from the rating agencies. Historical records show that along with the low record of default, there have also been high recovery rates – a beneficial combination for investors.

Infrastructure debt is typically a better match to the liabilities of a pension scheme, based on the contractually fixed return that is guaranteed. It is therefore a lower risk investment for the lender. However, unlike infrastructure equity, there is not the same opportunity for capital appreciation. Given the return characteristics of infrastructure debt, we believe that this would be a better match for the stabilising part of the portfolio as opposed to the illiquid growth portfolio, as we do not believe that a portfolio of infrastructure debt alone will meet the return objective of equity-like returns. That said, infrastructure debt can act as a good diversifier within an infrastructure portfolio, and any inclusion for either diversification or risk management reasons should be at the discretion of the manager, and they should be permitted to have a small allocation to infrastructure debt within the overall fund.

Core, value-add or opportunistic

Within the infrastructure equity asset class, we believe that opportunities can be grouped into three distinct categories, each of which has its own distinguishing characteristics. The expected return characteristics and yield are our prudent, realistic expectations of what is obtainable within the asset class, and may differ slightly from the views of infrastructure managers.

	Core	Value-add/core plus	Opportunistic
Expected net IRR (return p.a.)	6-8%	10-12%	15%+
Yield (p.a.)	4-5%	5-6%	6-7%
Characteristics	High yield with strong inflation protection, limited use of leverage and lower potential for capital gains	Medium yield with some inflation linkage, relatively higher levels of leverage and some potential for capital gains	Low yield with little inflation linkage. Much higher volatility but targeting significantly higher returns from capital appreciation

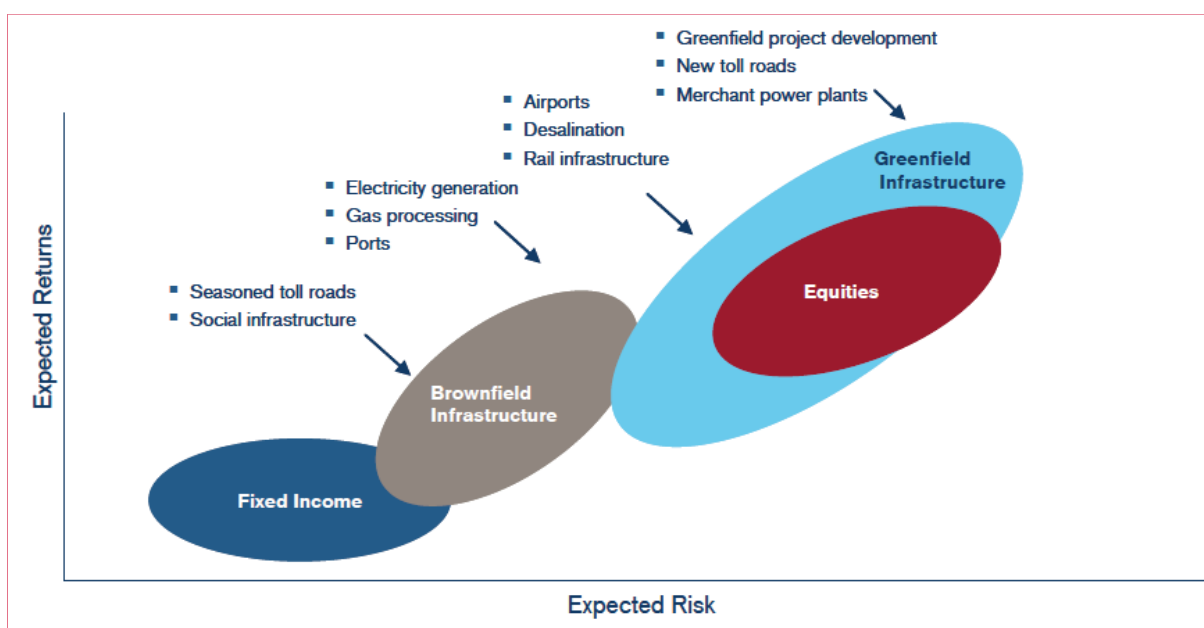
UK vs. global

There are some very important considerations that need to be taken into account when looking at the geographical remit to invest in infrastructure. Whilst we believe that a global opportunity set is the best way to approach the infrastructure investment issue, there are a number of reasons why infrastructure managers focus on UK, US, European and Australian assets. The main reason is the regulation in these developed regions is significantly stricter than would be found in the developing countries – allowing more accurate investment assumptions to be made, and less risk to be taken. We do, however, believe that there are opportunities outside of Europe and North America, and as such, a global mandate would be the best way to capture all of the possible opportunities as it would allow the selected infrastructure manager(s) to use their discretion in terms of geographical allocation. This being said, a cautious approach should be taken when it comes to potential investments in emerging markets, as the risks of investing in infrastructure projects in these regions are significantly greater.

Brownfield vs. greenfield

Infrastructure investments are mainly considered to be either brownfield or greenfield investments; Brownfield is defined as previously developed infrastructure projects and typically invests in fully operational assets where there is a track record of operation and a yield is earned immediately. One specific risk with a brownfield investment is whether there are any disposal costs to consider at the end of the useful life of the asset. These assets typically have a moderate level of return but with lower risk. Greenfield investments involve investing at the development stage of a project. This can therefore include both planning and construction risk, and a yield is not earned until post commissioning of the asset(s). The return is expected to be higher than brownfield investment due to greater capital appreciation potential but there is greater risk, as well as a period of time where there is no yield from the asset. In between greenfield and brownfield sits another category often referred to as 'yellowfield' where existing Infrastructure assets require work to either upgrade or replace the asset. Although construction work is involved it is considered lower risk than greenfield as more information is available to evaluate risk (such as operational history, revenue and 'foot fall' for example).

The chart below looks at a number of different sub sectors within the infrastructure asset class, and also shows the two stages (brownfield and greenfield) on an expected risk vs. expected return basis. The chart also includes where classic fixed income and traditional equity asset classes would fit into the graph, to allow a full comparison between the asset classes.



Source: Credit Suisse Asset Management, for illustrative purposes only

Also note that assets within the same sector can behave differently depending on for example, the contracts, and therefore move further along the risk spectrum. As well as the contract affecting the behaviour of the returns, there are also other factors which can influence the risk-return profiles of investments within the same sector.

The capital structure used to invest in the asset can play a very important role in this. For instance, if leverage is used alongside equity to make the investment, then you would expect to move up and to the right on the above graph, as that leverage should hopefully supplement the returns compared with not using leverage.

Another factor which can affect the return is geography, and more importantly the political, economic, and regulatory environment stability. For instance, an investment in an electricity generation plant in the UK is likely to have a far lower risk-return profile than the same asset in central Africa. Assets in countries with

greater political instability are going to be higher risk, and command greater returns as a result; and, it is typically these countries that have weaker regulatory environments.

The foot fall of an asset can also affect the expected return of an asset, if the experienced foot fall is different to that which was forecast. However, as mentioned in section 2.2, infrastructure managers tend to prefer availability payment mechanisms as this reduces the variability of returns and provides a contractually agreed return.

Management of assets

Once an asset has been purchased, or a contract for the lease has been agreed, there are two ways in which the asset can be managed; passively or actively. The infrastructure manager would typically only partake in passive management if it was a minority shareholder in the investment, and so would have no involvement in managing the asset. The infrastructure manager is more likely to want to undertake active management as the controlling shareholder, as this gives them much greater control and autonomy when it comes to managing and operating the asset.

Once an infrastructure asset has been purchased, and contracts agreed, the asset then needs to be managed. This is almost as important for the potential return of the asset as the contract negotiations guaranteeing return are. As a result of this, the majority of infrastructure funds hire specialists within each sector to run the assets, as the expertise is key to ensuring the asset is operated and maintained in the most efficient manner. When investing on a global basis, it is important that those who are managing the assets have local knowledge to facilitate a smooth and efficient operation of the asset.

We believe that active management is the preferred method of managing the assets once they have been purchased, as this allows for greater control over the risks which could arise from mismanagement and poor governance. However, if a manager was to invest as a minority shareholder - and therefore not have the ability to manage the asset actively - we would expect that the manager would only invest alongside another investor that it had conducted due-diligence on and was happy to invest alongside, based on their ability to manage the asset and ensure good governance.

Size of Assets

The size of the deal within any of the sub-sectors will vary on a deal-by-deal basis, as a general rule, the most expensive assets will be those which are monopolistic in nature, have very high barriers to entry, and serves vast portions of the population.

In terms of deal flow of an infrastructure manager, we would expect them to have a number of small deals (tens of millions of pounds), increasing to a few deals worth billions of pounds, dependent on the size of the fund. The size of the fund is an important consideration when looking at the assets, as a £2bn fund will not use 25% of its capital for one deal/asset, so will restrict potential opportunities to invest in £500m+ deals. A fund of this size would typically make investments from £50m to £400m.

We believe that the sweet-spot for the majority of infrastructure managers is deals in the hundreds of millions (£100-£400m, depending on fund size), as this allows sufficient diversification without spending significant amounts of time negotiating a lot of very small deals.

The largest 'core' deals (which are typically established assets with a steady yield) are likely to be expensive and moving more into the private equity buy-out world. This will push up the price valuations of these assets and reduce the overall return to investors.

Summary

The investment in infrastructure must be structured appropriately to ensure it has the desired characteristics to meet the investment objectives. From the analysis above, we believe that in order to meet the strategic objectives the Fund should look for investments with the following characteristics:

- Invest via the unlisted approach with real assets:
  - This is essential to ensure true diversification from the Fund's listed equity investments;
- Invest in infrastructure equity (i.e.; fund's which purchase real assets)
- To manage risk and dampen volatility, allow an element of debt at the manager's discretion
  - In general, infrastructure debt is not expected to meet the required return of the Fund's growth assets over the longer term;
    - However, from time to time there may be opportunities that allow a superior return to be achieved than normal from debt with a much lower corresponding level of risk than an infrastructure equity investment;
    - There may also be times when the return or risk from available projects is not appropriate for investment and an investment in debt could provide a suitable alternative
  - In the above way, the tactical use of debt at the manager's discretion can help to dampen the volatility of the infrastructure investment
- A broad mandate is needed, allowing access to core/value-add/opportunistic in order to achieve equity-like returns
  - Similar to some of the reasons for allowing the infrastructure manager to allocate to debt, it is important to allow the manager to allocate between the different broad risk categories to meet the objective, albeit with some limits for the asset allocation to ensure the overall risk profile remains appropriate
  - The attractiveness of opportunities will vary over time and allowing as wide an opportunity set as possible for the investment manager, subject of course to some limits, allows them to use their judgement and skill to enhance returns and manage risk
- Ability to invest on a global basis to take advantage of all opportunities within the market
  - The need for infrastructure investment and the opportunity set within the UK is strong. However, the reasons why an infrastructure investment is suitable for the Fund, as highlighted, mean that investing in opportunities on a global basis is appropriate
  - At different times, there may be attractive and superior opportunities overseas. Allowing a skilled infrastructure manager with the required research capabilities can add significant value.
  - It also provides diversification from the UK environment which could suffer unique regulatory issues or, given the interest in this asset class, insufficient opportunities.
- Consider investment in greenfield assets in order to meet return target
  - Greenfield investment is considered riskier than brownfield investment due to the risks in the construction phase. There is also potentially a longer period before the asset begins to provide a return.
  - However, there is expected to be a premium from this additional risk and therefore allowing a skilled investment manager to make select investments in greenfield projects to compliment investments made at other stages will help the infrastructure manager and therefore the Fund's allocation to meet the required returns.

In summary, it will be important for any mandate to be properly specified in terms of limits on the types of investments to ensure the required risk and return profile can be met. Within this though it is important to offer a wide opportunity set to the investment manager(s), by region, asset class (equity vs debt), target return and stage of project to allow the infrastructure manager to manage risk as well maximise the probability of meeting the return objectives.

5 How to access infrastructure funds

Closed-ended vs. open-ended

There are two common vehicle structures that can be used by an infrastructure manager; an open ended vehicle and a closed ended vehicle. These have slightly different characteristics, each with benefits and disadvantages.

Whereas a closed ended vehicle has a set lifetime (typically c. 10-15 years for infrastructure), an open ended fund has no set lifetime and offers periodic windows where investors are able to invest or redeem units, subject to the liquidity of the fund. This is the primary advantage of the open ended structure, as investors are able to redeem their money far more regularly than possible with a closed ended structure. By not having a set lifetime, the infrastructure manager is then also able to decide when to purchase and sell assets, rather than being forced to sell at the end of the fund's life under the closed ended structure. This can be a benefit in the instances where the vehicle holds an asset which is appreciating and providing a stable inflation linked cashflow that the Fund may wish to remain invested in. An open ended structure also allows for the investor to see cashflows from a much earlier time, as they are investing in a vehicle that already has money invested in a visible portfolio, minimising the drawdown on the j-curve.

However, there are also many advantages to the illiquid, fixed lifetime structure that is offered within a closed ended vehicle. As liquidity is less of an issue, the infrastructure manager is able to invest in opportunities which are generally more high risk and, as a result, gives higher returns as investors are unable to redeem their investments on a monthly basis. This allows the manager to focus on investing to maximise returns for the investor, rather than ensuring there is sufficient liquidity within the fund to allow investors to redeem contributions.

When the costs and benefits of each are weighed up against one another, there is an argument for investing in both the closed ended and open ended structures. However, over time, the closed ended structure has become the primary strategy that infrastructure managers have preferred when setting up infrastructure funds, as they are generally simpler and more efficient when it comes to administration.

Direct vs. Primary vs. Secondary

Within the individual funds, there are also three main ways in which exposure to infrastructure assets can be gained; direct or co-direct investments, primary fund investments, and secondary fund investments. Each of these methods of investing requires a team with a slightly different skill-set, as each method is not alike.

Direct and co-direct investments involve the infrastructure manager sourcing individual deals, and investing in them by themselves, or alongside another manager. In these types of investments, the infrastructure manager would also be responsible for ensuring the asset is properly maintained and operated. In many instances, rather than purchasing the real asset, the manager will negotiate a contract which entitles it to the returns of the asset, making the contract negotiations a key part of the investment process. This is typically the most cost effective way to invest, however requires the greatest level of due-diligence and also poses the greatest risk. Investing in this way would also reduce diversification within the portfolio, however we believe there are funds that invest in direct and co-direct investments that are of sufficient size to ensure that diversification is not an issue.

An investment in a primary fund involves becoming a Limited Partner ('LP'), and investing in a General Partner ('GP'). This requires a different skill-set, as rather than sourcing the deals directly and negotiating contracts, this is left to the GP. As such, the research into the GP is the most important factor in a primary fund investment. A primary fund investment is typically more expensive than a direct investment; however, the risk

is greatly reduced. As an LP, you are only liable for the amount of money you have invested. This approach allows for a moderate level of diversification, as the GP would be investing in numerous assets.

The third approach is an investment in a secondary fund. This involves purchasing units of a fund from pre-existing investor commitments. Whilst there is a market for secondary investments, it is not as large as the market for primary investments. However, there are a number of benefits. As the funds are typically more mature than a primary fund, there is a greater visibility on the assets that are being purchased. This also allows for faster yield generation and has a shallowing affect on the j-curve. There is also the potential to purchase units at a discount to Net Asset Value ('NAV') on the secondary market, which has the potential to boost returns.

We believe that the best structure for Avon to invest in infrastructure would be via either a single pooled fund, or a fund of funds. Whilst a fund of funds structure would allow for greater diversification, this comes with an additional layer of fees. Whilst we believe that there are infrastructure funds investing in direct an co-direct investments that are of sufficient magnitude to achieve adequate diversification, with the benefit of lower fees, both this method and a fund of funds structure that invests in primary and secondary funds remain viable options and both should be considered in fulfilling the brief that is outlined in the following section.

Vintage year exposure

The time frame of when money will actually be invested is a very important factor to consider when reviewing infrastructure investments, similar to private equity. The reason for this is that the deals that would have been available in 2007-2008 for example are very different to those that are available today. There will be inherent 'vintage year' diversification within any investment into a closed ended infrastructure fund based upon the length of the investment period to final close.

In order to further diversify the vintage years that investors are exposed to, there are a number of options that could be considered. The first option would be to have an allocation to a secondaries fund (or a fund which considers secondaries as part of its investment strategy), as a vehicle such as this would take vintage years into account to ensure a diversified portfolio.

The second option to be considered when looking to diversify the vintage year of the underlying assets is to consider investing in a fund of funds product. These types of funds typically look at primary and secondary investments in other funds, so any investment would be spread throughout a much greater number of infrastructure assets which have been invested over many different vintages. The downside with an investment in a fund-of-fund investment is the added layer of fees, which should be considered alongside the potential benefits and the expected net return.

Fund Availability

One primary difference between an infrastructure fund and a typical equity fund, is the availability of funds to invest in at the time each investor is looking to invest. When tendering for an infrastructure manager, it is very unlikely that all known infrastructure managers will be able to participate in the process. The opportunity set for the tender will be defined by those infrastructure managers that are raising funds at the time of the search. Fundraising often lasts for 12 months or more.

Dry Powder

Dry powder relates to the amount of money which has been committed to infrastructure managers, but which is yet to be invested. Preqin, the data provider estimates that as at September 2013, the total level of dry powder within unlisted infrastructure is $90bn. This is well over double the level of dry powder in December 2006 (pre- global financial crisis) that was estimated at $40bn. The primary reason for this has been a weak deal flow pipeline as a result of the global financial crisis, which has provided a hangover with all the additional money unable to be invested. With such high levels of surplus cash, there is pressure for infrastructure

managers to invest, and this has pushed up the competition, and price, for infrastructure assets. It can also lead to a cash-drag on performance as the money remains un-invested.

Limited Partnership structure

The traditional ownership structure of an infrastructure vehicle is via a limited partnership agreement ('LPA'). The limited partner investor (i.e.; The Avon Pension Fund) is typically protected by law from losing anything but the original capital invested, and the general partner ('GP') retaining the liability of the overall fund and its underlying assets which it manages.

We believe that a LPA is the preferred vehicle for investing in infrastructure though, as it removes any of the liabilities from the investor.

Leverage

One factor that needs to be considered when making an investment in infrastructure is leverage. The purpose of the leverage is to supplement equity when purchasing the assets, in order to supplement returns. This is beneficial to the infrastructure manager and the investor based on the ability to borrow at a low cost.

Inherently within the underlying infrastructure transactions there is leverage, but this would be on a deal-by-deal basis rather than the fund as a whole being leveraged. Given the demand for infrastructure assets, often the only way to be able to compete is by including leverage on deals for the assets that are purchased. Leverage is also used at the asset level in order to enhance returns and is often the most tax efficient way to finance infrastructure purchases. We believe leverage is only appropriate for individual deals and not at the fund level.

Fees

Given the structure of infrastructure funds, there is also a difference in the way that fees are applied when compared to a more traditional equity fund. There are a wide variety of fee models used within each type of investment method i.e. an open ended fund, closed ended fund and a fund of funds, and the comments below can apply to all. With a fund of funds structure, there will of course be the fees at the underlying fund level and those fees payable to the fund of funds manager, so there could be a variety of fee structures within the Fund's allocation.

Typically, an infrastructure fund will charge a management fee on all committed capital, including that which is undrawn. There is typically a performance fee, which is usually based upon the NAV of the fund, but which is also subject to a hurdle rate and a high watermark, with some form of catch-up. What this essentially means is that a performance fee will be calculated using the NAV – assuming that a certain return is being generated (the hurdle). This hurdle would typically be different based on whether the fund was core, value add/core plus or opportunistic, so as to not just incentivise the infrastructure manager to go into the riskiest assets to maximise their profit.

A high watermark is in place to ensure that the manager is not rewarded for good performance unless the fund is above a critical NAV that has been previously reached - i.e. if the fund was to fall in value by 30%, the manager would not receive any performance related fee until the previous value of the fund is reached. This is again to incentivise the infrastructure manager to achieve predictable, long-term growth.

The catch-up rate refers to the way in which the fees are proportioned beyond the hurdle rate. This can vary, but if the catch-up rate was 50% to both the investor and the manager, then for profits above the hurdle rate the investor and the manager would split, 50/50, the profits above the hurdle rate, until they have reached a pre-agreed upon profit split or 'carry'.

It should be noted that fees to invest in Infrastructure are typically more expensive than other asset classes due to the high level of management resources required. This may include the hiring of skilled people with local knowledge, the cost in financing an asset through structuring leverage deals, the operational

management of the asset and the management of exit strategies. Headline investment management fees can vary from around 0.5% p.a. to 1.25% p.a., typically with core investment at the lower end and value add at the higher end. Over the lifetime of an investment, the overall fees for a balanced portfolio, including performance fees and the operational fees, could be in excess of 2% p.a.

Risks associated with fee structure

The inherent risk involved with such fee structures, where the manager remuneration is based on the NAV of the fund, is that the fund manager will wish to ensure they are above the preferred return, as this will make their 'carry' available to them, and therefore when approaching the performance hurdle the potential incentives mean that their actions may not be completely aligned with those of investors. However, high watermark, escrow and claw-back arrangements ensure that risk is maintained at a sensible level, as losses would be detrimental, not only to the investor but also to the GP, as some of their profit share could be withdrawn. Overall, we believe that there are sufficient incentives in place within the typical infrastructure vehicle fee structure to mitigate against misaligned risk taking.

Another risk within infrastructure funds is disposal risk. If the fund was hovering just below the hurdle rate, there is the risk that the infrastructure manager may dispose of an asset in order to boost return and their profit share as a result. Within a closed ended fund there is also the possibility that the manager will behave differently as he knows that he will definitely have to dispose of the asset at the end of the infrastructure vehicle's life.

NAPF's Pension Infrastructure Platform

The Pensions Infrastructure Platform ('PIP') has been in the pipeline for sometime, and deadlines have been passing with no further information being released. From our conversations with fund managers, we believe that the PIP will face a strong headwind from its launch, based solely on the mandate that it has set itself. The PIP has a target size of £2bn, and is expected to invest solely in core UK infrastructure assets, which are mature to avoid construction risk. It is also expected to operate at low levels of leverage, with no more than 50% on a deal by deal basis. These are the assets that are typically very highly contested for, within the infrastructure market due to their low risk and stable return characteristics.

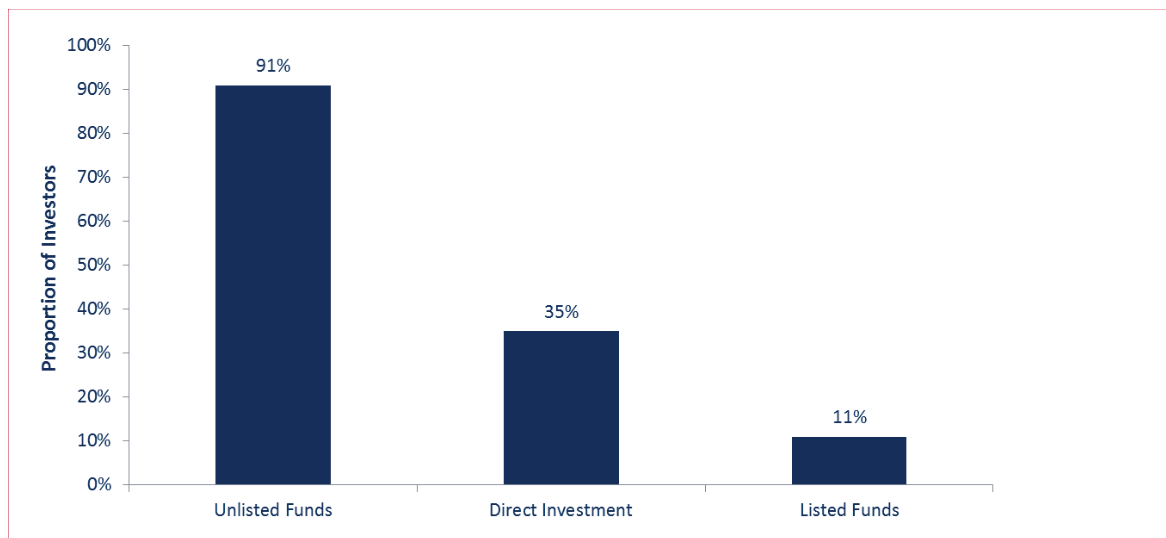
Given the above factors, further details released at the NAPF Annual Conference & Exhibition in October 2013 pointed to the fact that the PIP is likely to be open to construction risk, as there are now sufficient ways to manage this, and that it would be a 10 year vehicle. It was also said that an infrastructure manager was very close to being appointed, and the expectation was that the first investments would be made by the end of 2013.

The NAPFs PIP may be eligible to tender for the Fund's mandate should it feel that it is in a position to satisfy the criteria set out by the Fund, but we do not believe that the Fund should delay the tender process to allow time for the PIP to develop.

It should be noted that the PIP model may potentially provide a cheaper way to access UK Infrastructure for investors. However as the full details of the scheme are not yet known we do not know whether it would meet our mandate criteria.

Current preferred route to market

The graph below, taken from a recent survey conducted by Preqin, shows the preferred route to market of worldwide investors searching for new infrastructure investments in the second half of 2013 and the first half of 2014. The majority of investors are looking to invest via unlisted funds, but some investors are looking to invest via combinations of the three, which explains the bars totalling more than 100%. A direct investment would involve the Fund purchasing an asset directly, and then being responsible for its operation and management.



Source: Preqin

Given the lower correlation with equity markets and the illiquidity premium on offer, we advise that Infrastructure through an unlisted fund is suitable for the Avon Pension Fund's allocation.

6 Draft policy framework

The next stage is to finalise the policy framework that should be adopted.

Having reiterated the rationale and described the drivers, characteristics and implementation issues within this report we propose the following framework.

6.1 Proposed policy framework and constructing the portfolio

In terms of an appropriate framework for the Fund, we acknowledge that a 5% strategic allocation to infrastructure implies an investment of c. £150m into the asset class. This is a sizeable allocation which would allow exposure to a diverse range of infrastructure investments.

With the allocation to infrastructure forming part of the Fund's illiquid growth portfolio, we would recommend that the Fund invests in an infrastructure fund focussing on infrastructure equity (real assets), rather than infrastructure debt (bonds used to finance purchases of the real assets). Whilst infrastructure debt would not meet the return target by itself it could be considered as a small part within an Infrastructure growth portfolio as an additional diversifier and risk management tool under any manager's discretion.

As outlined in section 4.1, within the infrastructure universe it is possible to gain exposure through listed or unlisted funds. We would recommend that the Fund invests in private, unlisted, infrastructure funds. This is in recognition that listed infrastructure, which effectively is investing in the listed equities of infrastructure companies, has historically provided returns that are highly correlated to listed equity market returns. The fact that the Fund's revised investment strategy consists of a 50% allocation to listed equities also backs up the reasoning for investing in unlisted infrastructure, as there may well be instances of doubling up on exposure to certain listed equities in the allocation to infrastructure, listed equities and possibly even within diversified growth funds.

From the 2012 investment strategy review undertaken for the Fund by JLT, the JLT long term forecast for infrastructure was quoted as 7.0% p.a.. This is consistent with the SIP quoted return of Gilts + 2.5% p.a. over the long term. However, given the cashflow nature of the underlying assets within infrastructure, returns tend to be measured in internal rate of return ('IRR') terms. Often, the IRR will be quoted alongside a number that represents the value of the investment plus money returned as a multiple of the initial investment. This is often not directly comparable with the type of return quoted in the SIP and as used for the majority of the Fund's other investments. It is therefore important to assess the infrastructure returns in IRR terms given the nature of the investment, but to also be able to refer to the traditional means of measuring performance (i.e. as quoted in the SIP) because this is relevant for assessing the success of the investment strategy relative to the liabilities.

We would therefore suggest that the Fund should target an investment return, represented by the IRR, of 10-12% to ensure consistency with the stated objective within the SIP, of 7% p.a.. That is, given that the infrastructure investments are expected to occur in a staggered process (i.e. the drawdown process), it is important that the IRR targeted is above the required return as stated in the SIP. We believe the 10-12% IRR target is achievable by focussing on infrastructure equity rather than debt and through active fund management. We would recommend that this target be achieved by investing in funds offering a range of core, value-add and opportunistic infrastructure investments, to ensure diversification across geographical regions, sectors and also a mix between greenfield and brownfield investments. Section 4 highlights the different characteristics of the sectors.

Section five highlighted how an individual fund that invests in direct and co-direct investments could provide sufficient diversification. A fund of funds approach, investing in primary and secondary investments is likely to be able to achieve an even greater level of diversification than an individual fund, but would attract an additional layer of fees. Given that both structures could fulfil the brief, we believe that both should be considered by the Fund.

Another means of achieving the necessary level of diversification would be to appoint more than one manager. Whilst an investment of £150m could potentially be split across up to two infrastructure managers, we do not believe this is justified given the targeted allocation of 5% and given that diversification is possible through a single manager. That is, we believe that the following brief can be fulfilled either by a sufficiently large single fund investing in direct and co-direct investments, or through a fund of fund structure:

- An explicit investment into core / value-add / opportunistic infrastructure, on a global basis;
  - Focussed on core infrastructure equity within developed economies such as the UK, Europe, North America or Australia, but with the opportunity set to invest in value add and opportunistic assets if the characteristics are right;

We believe that it is most appropriate for the core infrastructure investment to be in stable economies which is highly regulated. However, we do not believe any further restriction on geography should be imposed. For example, a manager may be concentrated within the UK because a high level of diversification by sector and type of investment is available in what the manager believes are attractive opportunities. When it comes to value add or opportunistic infrastructure investments, whilst these are available in developed, regulated markets such as the UK, Europe, North America and Australia, the infrastructure manager should have the discretion to invest on a global basis to best take advantage of any opportunities.

It should also be remembered that, whilst there are a number of very credible infrastructure managers in the market, it is unlikely that they will all be raising funds at the time that the Fund goes out to search in relation to the mandate. In addition, potential collaboration with other LGPS could be considered if the mandate specifications are the same and the investment timeframe matches.

Given the additional fees and additional manager to monitor, we recommend that the Fund should look to appoint one manager for infrastructure investments. The Fund should invest either in a fund with exposure to direct and co-direct investments or a fund of funds structure, which offers access to a mixture of core, value added and opportunistic infrastructure investments. The one requirement of this investment is the size of the fund. Investing in a single direct / co-direct fund could potentially lead to concentration risk by geographical region, sector etc., although we believe there are funds available that have sufficient scale to mitigate these risks. As mentioned in section five, the fees associated with accessing core/value-add/opportunistic investments typically vary, and, as such, in completing due diligence on a manager who offers access to all three areas, questions should be asked to ensure that the manager is not excessively incentivised to invest in the higher fee bearing investments.

Nonetheless, should the Fund look to increase its exposure to infrastructure in the future beyond the current target of 5%, particularly if targeting a specific opportunity, it may be appropriate to consider an additional manager at that time.

Whilst fund of funds come with an additional layer of fees, as mentioned in section 4.1., this should be considered in the context of the additional diversification that is offered. This is not an unfamiliar concept to the Avon Pension Fund: the overseas property exposure is gained through a fund of funds structure managed by Partners Group. This includes direct / co-direct, primary and secondary investments. Similarly, some infrastructure managers do use fund of funds within their investment strategies to offer diversification alongside primary and secondary investments. This would be a factor to be considered in the due diligence on the investment managers, to ensure that they are not incentivised towards one type of investment over

another, as the transparency of fees in cases such as this starts to reduce. It is important to note that fund of funds are not the only way to gain vintage diversification, as a single fund can also invest in a number of projects and secondaries and therefore diversify by vintage year.

6.2 Recommendation

We recommend that in order to meet the strategic objectives of the Fund in relation to an investment in infrastructure, the investment should take into account the following characteristics:

- Aim to achieve a return of gilts +2.5% p.a., as set out in the SIP;
- An unlisted fund investing in unlisted assets, based on the low correlation with typical equity markets and to take advantage of the illiquidity premium;
  - Managed by a single investment manager either in a direct / co-direct fund structure or a fund of funds structure;
- Allow debt to be considered under manager discretion for effective risk management of the portfolio;
- Invest across core, value-add and opportunistic assets to ensure a steady and predictable yield whilst still meeting the return target of gilts +2.5%;
- Implement a global mandate giving the infrastructure manager the discretion to select where investments are made to take advantage of all opportunities based on the risk/return characteristics of each deal, albeit with an expectation that the majority of exposure is in developed, highly regulated markets and in core investments;
- Subject to sufficient diversification by sector and stage of project as noted below, further constraints on geographical location should not be imposed
  - The opportunity set should be global but investments in a region should not be made if they offer sub-optimal returns and protections;
- Diversify across sectors to reduced sector concentration risk within the portfolio;
- Allow greenfield investments in addition to brownfield in order to meet return target of gilts +2.5% p.a..

6.3 Next steps

Infrastructure forms a key part of the Fund's revised investment strategy. Following this report, we recommend that the next steps to take are:

- Decide upon the broad criteria for any manager search(es);
- Consult with other LGPS regarding any potential collaboration to align any similar search activity and potentially share costs;
- Undertake any manager search(es);
- Update the Fund's ('SIP') to reflect any changes in investment strategy, including the production of a letter to satisfy Section 36 of the Pensions Act 1995.

7 Infrastructure glossary

Brownfield

Brownfield investment involves an existing asset or structure that requires improvements, repairs, or expansion. The infrastructure asset or structure is usually operational and may already be generating income.

Carried interest (Carry)

A share in the profits of an infrastructure fund. Typically, a fund must return the capital given to it by limited partners plus any preferential rate of return before the general partner can share in the profits of the fund. The general partner will then typically receive a 15 to 20% carried interest. Also known as 'carry'.

Catch-up

A specific clause in the agreement between the general partner and the limited partners of an infrastructure fund relating to the remuneration of the general partner. Once the limited partners have received a certain portion of their expected return, the general partner can typically receive the majority of profits until the previously agreed-upon profit split is reached.

Deal flow

A measure of the number of potential investments that a fund reviews in any given period.

Drawdown

The general partner will call upon investors to provide monies for investment in underlying companies. Each of a series of requests for investment capital from the limited partner to the general partner is referred to as a 'drawdown'.

Dry Powder

Dry powder is the amount of money that has been committed to an infrastructure manager, but has yet to be invested.

Due diligence

The investigatory process performed by investors to assess the viability of a potential investment and the accuracy of the information provided by the target company.

General partner (GP)

A class of partner in a limited partnership agreement. The general partner retains liability for the actions of the partnership. The GP is the fund manager while the limited partners (LPs) are the institutional and high net worth investors in the partnership. The GP earns a management fee and a percentage of profits (see carried interest).

Greenfield

Greenfield investment involves an asset or structure that needs to be agreed and constructed. Investors fund the construction of the infrastructure asset and potentially, the ongoing maintenance when it is operational.

Internal rate of return (IRR)

This is a measure of the performance of an infrastructure investment based on the initial investment costs and the investment proceeds over the period of investment. The internal rate of return for a fund is based on the cashflows into and out of the fund, as experienced by an investor. The annual rate of return would typically be lower than the IRR, representing the fact that not all monies are invested immediately.

J-Curve

The curve realised by plotting the cashflows generated by an infrastructure fund against time (from inception to termination). It is so-called because initial cashflows are negative and over time these 'below the line' investments are (hopefully!) equalled and exceeded by the returning cash flow distribution from the infrastructure commitments to the limited partners. Once these are net positive they are referred to as 'above the line'.

Leverage

This term refers to the use of debt to acquire assets, build operations and increase revenues. By using debt, a company is attempting to achieve results faster than if it only used the cash available from pre-leverage operations. The risk is that the increase in assets and revenues does not generate sufficient net income and cashflow to pay the interest costs of the debt.

Limited partnership

A legal entity composed of a general partner and various limited partners. The general partner manages the investments and is liable for the actions of the partnership while the limited partners are generally protected from legal actions and any losses beyond their original investment. The general partner receives a management fee and a percentage of profits (see carried interest), while the limited partners receive income, capital gains and tax benefits.

Limited partner (LP)

An investor in a limited partnership. The general partner is liable for the actions of the partnership while the limited partners are generally protected from legal actions and any losses beyond their original investment. The limited partner receives income, capital gains and tax benefits.

PPP/PFI

Public Private Partnerships ('PPPs) are contractual agreements between public bodies, local authorities or central government, and private companies to deliver a public, social or economic infrastructure project. Private finance initiatives ('PFI') are a form of PPP developed by the UK government.

Secondary market

A market for the sale of partnership interests in infrastructure funds. Sometimes limited partners choose to sell their interest in a partnership, typically to raise cash or because they cannot meet their obligation to invest more capital. Certain investment companies specialise in buying these partnership interests, often at a discount.

Yellowfield

Existing Infrastructure assets that require work to either upgrade or replace the asset. Although construction work is involved it is considered lower risk than greenfield as more information is available to evaluate risk (such as operational history, revenue and 'foot fall' for example)

Vintage year

This refers to the year in which the infrastructure fund was raised.

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Bath & North East Somerset Council		
MEETING:	**AVON PENSION FUND INVESTMENT PANEL**	
MEETING DATE:	**15 NOVEMBER 2013**	**AGENDA ITEM NUMBER**
TITLE:	**WORKPLAN**	
WARD:	ALL	
AN OPEN PUBLIC ITEM		
List of attachments to this report: Nil		

1 THE ISSUE

1.1 This report sets out the workplan for the Panel to June 2014. The workplan is provisional as the Panel will respond to issues as they arise and as work is delegated from the Committee. The workplan over this period will largely consist of projects arising from the recent changes to the Investment Strategy.

1.2 The workplan will be updated for each Panel meeting and reported to the Committee.

2 RECOMMENDATION

That the Panel:

2.1 **Note the workplan to be included in Committee papers.**

2.2 **Agree the proposed manager meeting schedule for the Panel.**

2.3 **Note the Officers' manager meeting schedule.**

3 FINANCIAL IMPLICATIONS

3.1 There are no financial implications arising from this report. Costs for meeting managers are provided for in the budget.

4 PROVISIONAL WORKPLAN

4.1 The provisional workplan is as follows:

Panel meeting / workshop	Proposed reports
15 November 2013	• Review mangers performance to September 2013 • Draft policy for Infrastructure • Projects arising from Investment Strategy Review • Meet the managers workshop (Schroder Global Equity)
4 December 2013 (Selection Panel)	• Select manager for Emerging markets mandate
26 February 2014	• Review mangers performance to December 2013 • Infrastructure Policy • Projects arising from Investment Strategy Review Meet the managers workshop (managers tbd)
4 June 2014	• Review mangers performance to March 2014 • Projects arising from Investment Strategy Review • Meet the managers workshop (managers tbd)

4.2 The Panel's workplan will be included in the regular committee report setting out the committee's and pensions section workplans. This will enable the Committee to alter the planned work of the Panel.

5 PROPOSED MANAGER MEETING SCHEDULE

5.1 The RAG reporting framework described a monitoring process that assumed Panel meeting the managers every 18 months and Officers at more regular intervals. As the implementation of the new investment strategy results in an increase in the number of external investment mandates to be monitored, Officers propose the following schedule for Panel and Officers to meet with managers. Obviously, Officer and Panel workplans will continue to prioritise meeting time for managers where issues arise.

5.2 Panel meeting schedule:

(1) Assume minimum number of managers to be 18 once infrastructure mandate in place

(2) Panel to meet each manager a minimum of once every 24 months

(3) Meet 9 managers a year

5.3 It is proposed that the Panel meet 2 managers in a workshop session either before or after every formal Panel meeting. It is envisaged this could be fitted into a half day. Where workload of formal meetings does not permit, alternative workshop arrangements will be made.

5.4 Officer meeting schedule:

(1) Assume minimum number of managers to be 18 once infrastructure mandate in place

(2) Officers to meet each manager on an annual basis, with an intervening 6 monthly conference call (this is in addition to routine monitoring contact).

(3) Meet 18 managers a year

5.5 It is proposed that Officers arrange 5 to 6 days each year when they meet c. 4 managers per day either in Keynsham or London.

6 RISK MANAGEMENT

6.1 The Avon Pension Fund Committee is the formal decision-making body for the Fund. As such it has responsibility to ensure adequate risk management processes are in place. It discharges this responsibility by ensuring the Fund has an appropriate investment strategy and investment management structure in place that is regularly monitored. The creation of an Investment Panel further strengthens the governance of investment matters and contributes to reduced risk in these areas.

7 EQUALITIES

7.1 An equalities impact assessment is not necessary as the report contains only recommendations to note.

8 CONSULTATION

8.1 N/a

9 ISSUES TO CONSIDER IN REACHING THE DECISION

9.1 This report is for information only.

10 ADVICE SOUGHT

10.1 The Council's Monitoring Officer (Divisional Director – Legal and Democratic Services) and Section 151 Officer (Divisional Director – Business Support) have had the opportunity to input to this report and have cleared it for publication.

Contact person	Liz Woodyard, Investments Manager 01225 395306
Background papers	
Please contact the report author if you need to access this report in an alternative format	

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