



## Avon Pension Fund

Review for period to 31 December 2014



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David Harrup

Consultant

St James's House, 7 Charlotte Street  
Manchester, M1 4DZ

Phone: 0161 253 1161

Email: david\_harrup@jltgroup.com

Jignesh Sheth

Director

St James's House, 7 Charlotte Street  
Manchester, M1 4DZ

Phone: 0161 253 1154

Email: jignesh\_sheth@jltgroup.com

# 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.

## Funding level

- There is expected to have been a decrease in the funding level by around 6% over the fourth quarter of 2014.
- The drivers of this were:
  - » A negative effect from the liabilities, as the valuation interest rate has decreased, increasing the value placed on liabilities. This was partially offset by a fall in inflation expectations.
  - » A modest positive asset return, which did not offset the estimated rise in liabilities.

## Fund performance

- The value of the Fund's assets increased by £102m over the fourth quarter of 2014 to £3,642m. The total Fund returned 3.1% (also 3.1% excluding Record currency hedging). This was behind the benchmark return of 3.4%.

## Strategy

- Global equities continued to generally rise over the quarter. As last quarter, the best region was the US (+8.9%), partly driven by a strengthening of the US Dollar relative to Sterling, and European equities fell (-1.4%) as the annual inflation rate in the Eurozone turned negative in December 2014.
- The fall in the oil price and commodity prices affected Emerging Market equities, which returned 0.4%. Frontier Markets were the worst performing equity region (-9.0%), which could be seen as a part correction of the returns earlier in the year, as despite this fall their one-year return was 13.9%.
- The twelve month equity returns in each of the major regions were all positive apart from European equities (-1.4%). Other developed equity returns were quite disperse, ranging from 20.3% from the US down to 1.2% from the UK.
- Three year developed equity returns have remained reasonably stable, as the equity market rebound of Q4 2011 has been replaced by positive returns over the last quarter, and returns remain ahead of the assumed strategic return.
- The three-year emerging market equity return fell to 4.3% p.a., remaining below the assumed strategic return.
- Gilts produced a positive return, as yields fell sharply. Corporate bonds were also positive, but with a lower return than gilts as the yield gap widened. Three-year gilt and corporate bond returns remained ahead of the assumed strategic return.
- The Overseas Fixed Interest return remains negative at -1.4% p.a. over three years, affected by rising US yields.
- Hedge funds returns continue to steadily improve but remain below the assumed strategic returns although the three year return showed further improvement this quarter. The Property return has moved further ahead of the assumed strategic return to stand at 10.6% p.a.

- The strengthening of the US dollar against Sterling meant that the overall impact of currency hedging the dollar has had a detrimental impact, offsetting some of the positive impact of the Dollar movement. Currency hedging was beneficial in Euros and Yen, which both weakened against Sterling.
- A 50% hedge on each currency would have had an overall detrimental impact because the US Dollar strengthened and the positive effect of this movement would be offset. However, Record maintained a low Dollar hedge ratio and a high Yen hedge ratio which meant that they outperformed against a 50% hedge and also produced a small positive return in absolute terms.

## Managers

- Over the quarter, absolute manager returns were all positive, apart from SSga Europe and Genesis in equities, which were affected by their respective markets (although Genesis also underperformed their benchmark over the quarter), and hedge funds Signet and Gottex.
- The developed equity managers, Schroder and Invesco, produced the highest returns (both 5.8%). RLAM's return was 4.2% as yields continued to fall, and property continued to perform well as the Schroder property return was 4.1%.
- Over one-year, the highest return came from Schroder Property (18.0%). In line with markets, most funds produced a positive return over one year, the exceptions being except SSgA Europe and Signet. Only TT, Schroder Equity, Stenham and the hedge funds underperformed their one-year benchmarks.
- Over three years, all funds produced a positive return and only Schroder Equity and Signet underperformed their benchmark, albeit marginally for Schroder (0.1%). Each of the outperforming managers also met their outperformance target, apart from TT which was 0.2% below.
- The three year performance of Genesis was below its strategic assumed returns – this was mainly market-related as they outperformed their target. In hedge funds, Stenham's three year performance has improved to just over the assumed strategic return, with Gottex just below and Signet significantly below.

## Key points for consideration

- The price of a barrel of oil fell from over \$100 in June to \$57 at the end of the year.
  - » This was the result of weakness in demand worldwide combined with some oil producers refusing to cut supply for geo-political reasons.
  - » Lower oil prices are the equivalent of a tax cut for many countries and a boost to growth, but also adds to the falling inflation being seen almost everywhere in the developed world.
  - » Some companies will benefit from lower oil prices (eg lower transportation costs) whereas others lose out, particularly energy and commodity-related stocks and those in the emerging and frontier markets which are more reliant on commodities/equities.
  - » The direct effect on the Fund was mixed, as TT benefited from being underweight in energy stocks whereas Schrodgers were overweight, and the Fund's emerging market equity managers were affected. The overall effect on the Fund is difficult to quantify as many stocks will have indirectly benefited from the lower oil price.
  - » The impact going forward will be more related to the uncertainty of the oil price rather than the absolute price, as companies re-negotiate their terms. In this environment we strongly advocate an active approach to equities, particularly in emerging markets.
- The Fund's asset allocation is currently overweight in equities and underweight in DGF and Infrastructure. The Fund agreed to appoint the Standard Life Global Absolute Return Strategies Fund as its second DGF manager. The Fund has appointed IFM as infrastructure manager, whose

allocation is expected to be met from equities over time, thus reducing the current overweight position.

- The recent election result in Greece brings to a head the fact that the current austerity programme has either failed or, at best, that it is not fit to restore a sustainable economy in Greece.
- At present the ECB, Germany (as the main driver of Eurozone growth) and the new Greek government appear determined to find a solution whereby Greece remains in the Euro, or so markets are currently pricing in:
  - » But the risk of sovereign default and expulsion from the Euro remain real possibilities;
  - » This has led to somewhat of a return to risk on / risk off characteristics to equity markets;
  - » Bond yields have plunged and could fall further in “safe havens” such as the UK and Germany.
- The massive stimulus announced in January by the ECB has further led to falling bond yields in the Eurozone and the UK (where the announcement impacts considerations on short term interest rates).

## 2 Market Background

The figures below cover the three months, 1 year and 3 years to the end of December 2014.

### Market Statistics

Yields as at 31 December 2014	% p.a.
UK Equities	3.37
UK Gilts (>15 yrs)	2.42
Real Yield (>5 yrs ILG)	-0.77
Corporate Bonds (>15 yrs AA)	3.41
Non-Gilts (>15 yrs)	3.74

Absolute Change in Yields	3 Mths %	1 Year %	3 Years %
UK Equities	0.03	0.09	-0.15
UK Gilts (>15 yrs)	-0.56	-1.16	-0.52
Index-Linked Gilts (>5 yrs)	-0.40	-0.80	-0.52
Corporate Bonds (>15 yrs AA)	-0.42	-1.01	-1.27
Non-Gilts (>15 yrs)	-0.41	-0.89	-1.08

Market Returns Bond Assets	3 Mths %	1 Year %	3 Years % p.a.
UK Gilts (>15 yrs)	11.2	26.1	6.9
Index-Linked Gilts (>5 yrs)	9.4	21.4	7.1
Corporate Bonds (>15 yrs AA)	6.7	18.9	9.3
Non-Gilts (>15 yrs)	6.6	19.0	10.2

\* Subject to 1 month lag

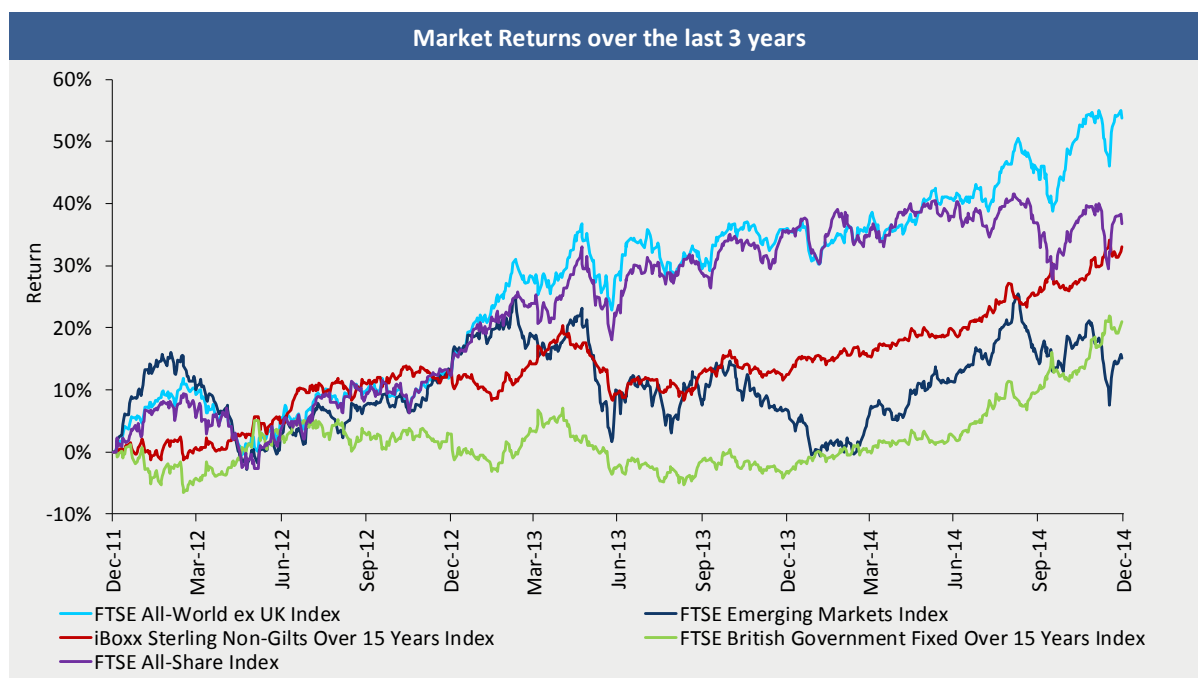
Source: Thomson Reuters and Bloomberg

Market Returns Growth Assets	3 Mths %	1 Year %	3 Years % p.a.
UK Equities	0.6	1.2	11.1
Overseas Equities	4.9	12.2	15.1
USA	8.9	20.3	20.4
Europe	-1.4	-1.4	12.8
Japan	1.6	2.7	9.9
Asia Pacific (ex Japan)	3.2	10.0	9.4
Emerging Markets	0.4	7.9	4.3
Frontier Markets	-9.0	13.9	13.8
Property	4.5	19.9	10.2
Hedge Funds	0.8	5.7	7.4
Commodities	-24.8	-28.9	-13.0
High Yield	1.5	6.1	8.7
Emerging Market Debt	-0.6	7.4	6.1
Senior Secured Loans	-0.1	2.3	7.4
Cash	0.1	0.5	0.5

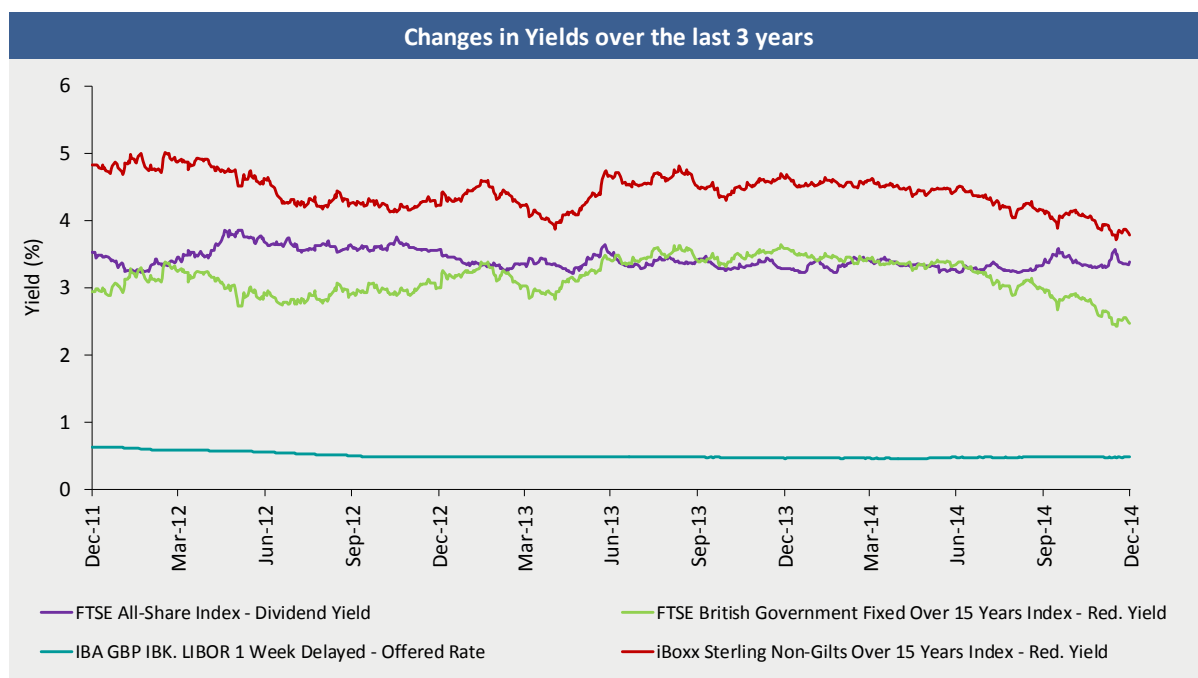
Change in Sterling	3 Mths %	1 Year %	3 Years % p.a.
Against US Dollar	-3.8	-5.9	0.1
Against Euro	0.4	7.2	2.5
Against Yen	5.1	7.4	16.1

Inflation Indices	3 Mths %	1 Year %	3 Years % p.a.
Price Inflation – RPI	0.0	1.6	2.5
Price Inflation – CPI	-0.2	0.5	1.7
Earnings Inflation *	0.4	1.6	1.2

## Market Summary Charts



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



The trend between December 2011 and April 2013 shows falling corporate bond yields whilst the dividend yield and gilt yield remained at similar levels, albeit these yields fluctuate in the period between these two dates. Bond yields rose in the second half of 2013 but declined through the year 2014 whilst the dividend yield has remained relatively flat since April 2013.

The table below compares general market returns (i.e. not achieved Fund returns) to 31 December 2014, with assumptions about returns made in the Investment Strategy agreed in 2013.

Asset Class	Strategy Assumed Return % p.a.	3 year Index Return % p.a.	Comment
Developed Equities	8.25	15.8	Significantly ahead of the assumed strategic return, as returns have been strong throughout the three year period. This return is slightly lower than that reported last quarter (16.9% p.a.) as the very strong equity market rebound of Q4 2011 has fallen out of the analysis.
Emerging Market Equities	8.75	4.3	The 3-year return from emerging market equities has improved over the last year but has fallen from 6.1% p.a. to 4.3% p.a. over the last quarter. The fall in the oil price resulted in a small negative Emerging Market Equity return in the latest quarter, whereas, as with Developed Equities, the quarter falling out of the analysis was one where markets rebounded.
Diversified Growth	Libor + 4% / RPI + 5%	4.7 / 7.6	DGFs are expected to produce an equity-like return over the long term – this is the basis for the Libor and RPI based benchmarks. Low cash rates means that the Libor based benchmark has significantly underperformed the inflation (RPI) based benchmark and the long term expected return from equity. During periods of very strong equity returns, such as the recent three year period, we would expect DGF to underperform equities but deliver a return close to the long term equity assumed strategic return.
UK Gilts	4.5	6.9	Bond returns remain above the long term strategic assumed return. Yields have fallen sharply over the last quarter, leading to strong positive returns, and increasing the three year gilt and corporate bond returns.
Index Linked Gilts	4.25	7.0	
UK Corporate Bonds	5.5	8.6	
Overseas Fixed Interest	5.5	-1.4	Well behind the assumed strategic return and remaining negative due to increases in US yields, however a positive return in the latest quarter has improved the three year return from -2.2% p.a. reported last quarter.
Fund of Hedge Funds	6.0	5.1	Hedge fund returns remain below long term averages and the strategic return, as they are affected by low cash rates. Returns continue to steadily improve as hedge funds increase equity exposure and credit markets have provided some positives.
Property	7.0	10.6	Property returns continue to increase above the expected returns, driven by the economic recovery in the US and the UK.

Source: Statement of Investment Principles, Thomson Reuters.

See appendix 1 for economic data and commentary.

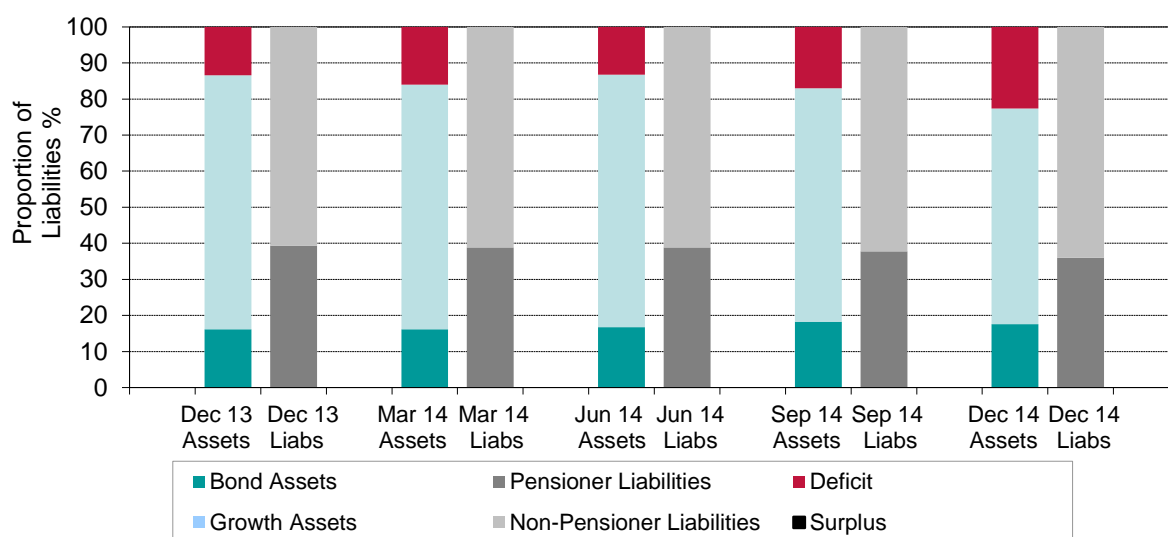


### 3 Consideration of Funding Level

This section of the report considers the estimated funding level of the Fund. Firstly, it looks at the Fund asset allocation relative to its liabilities. Then it looks at market movements, as they have an impact on both the assets and the estimated value placed on the liabilities.

#### Asset allocation and liability split

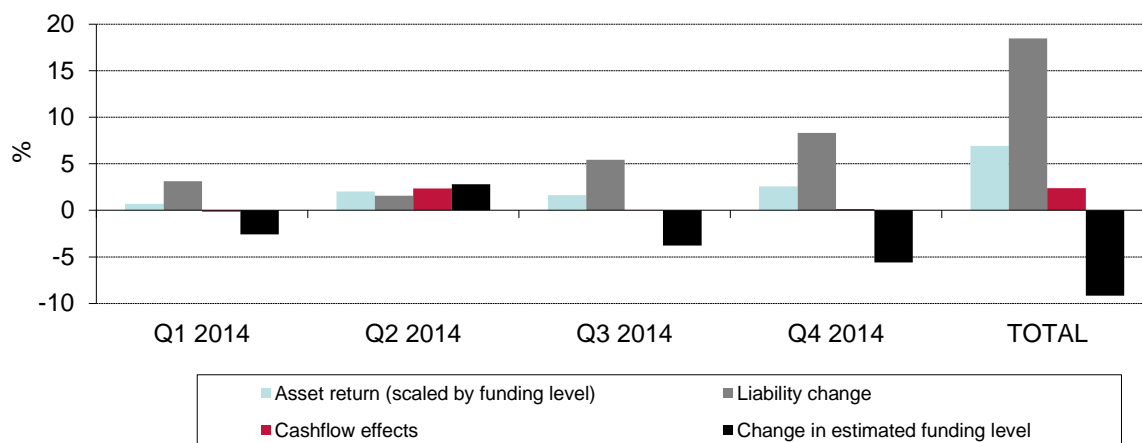
- The chart below shows the allocation of the Fund to Bond and Growth assets against the estimated liability split, which is based on changes in gilt yields underlying the Scheme Actuary's calculation of liabilities. The reference yield used for the liabilities is the Mercer Gilt yield (see appendix for definition). The liability benchmark is based on the valuation results from 31 March 2013.
- These calculations do not take account of any unexpected changes to the Fund membership or changes to the demographic assumptions and should not be construed as an actuarial valuation.



- Based on financial market values, investment returns and cashflows into the Fund, the estimated funding level decreased by circa 6% over the fourth quarter of 2014, all else being equal. This was driven by:
  - » A negative effect from the liabilities, as the valuation interest rate has decreased, increasing the value placed on liabilities. This was partially offset by a fall in inflation-linked liabilities.
  - » A modest positive asset return, which did not offset the estimated rise in liabilities.
- At the valuation date, 31 March 2013, the Scheme was 78% funded. Since then financial market movements, actual cashflows, and investment returns are expected to have decreased the overall funding level to 77%. Whilst there have been generally positive asset returns over the period, the decrease is mainly due to the fall in long gilt yields over the last six months which has increased the value of liabilities.

## Scheme performance relative to estimated liabilities

- The chart below shows, quarter by quarter, the return on the assets and the impact on the liabilities due to changes in financial market values and expected member movements.
- As detailed above, such movements in liabilities are based upon the bond yield underlying the Scheme Actuary's calculation of liabilities.

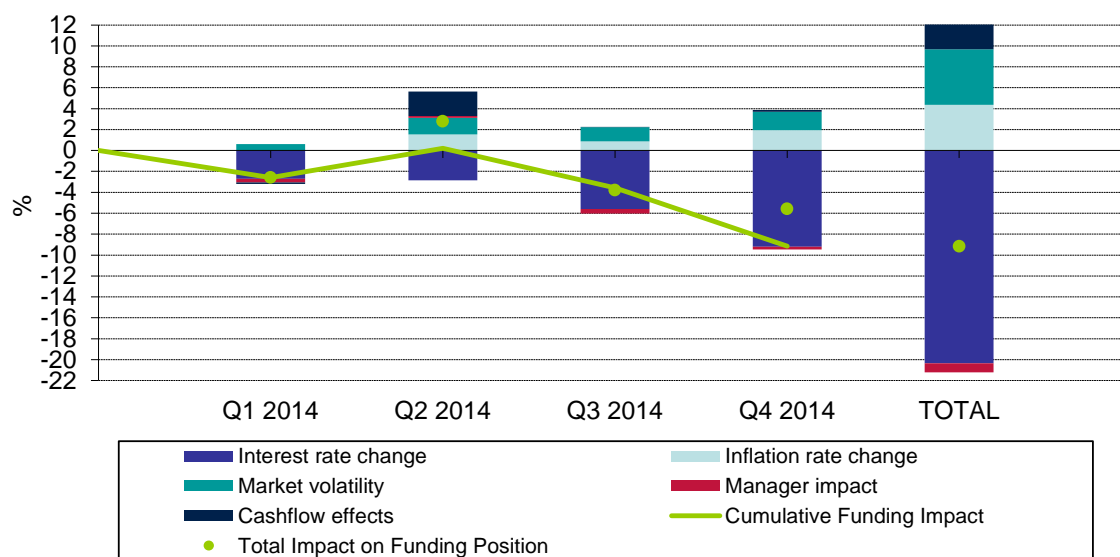


Note : A decrease in liabilities and an increase in assets improves the funding level and vice-versa.

- The graph above shows that the Fund's assets, scaled to take into account the estimated funding level, have produced an absolute return of 2.6%, over the last quarter.
- The value placed on the liabilities increased by 8.3% due to a fall in the discount rate, offset to some extent by a smaller decrease in the inflation assumption used to value inflation-linked liabilities.
- The 'cashflow effect' was negligible this quarter – the 2.3% in Q2 2014 represents several employing bodies paying their deficit payments in advance.
- Overall, the combined effect has led to a decrease in the estimated funding level to 77% (from 83% at 30 September 2014).

## Key drivers of performance against the estimated liabilities

- The chart below shows the main contributors to the change in the estimated funding level. For reference, please note that the underlying calculations are based on the Mercer gilt yield.



- 'Interest rate change' reflects the impact caused by the difference in the duration of the liabilities compared to the assets. When yields fall, as they have over the last year, it has a negative impact, as the liabilities have a longer duration than the assets.
- The Market Implied (RPI) inflation assumption fell by 0.1% p.a. over the quarter. This gives a positive contribution as future inflation-linked payments are projected lower.
- For Growth assets, 'Market volatility' is simply the (benchmark) return on the assets; for Bond assets it is the return less the return that would be expected given the changes in bond yields. This has had a positive impact over the quarter as Growth assets posted positive returns.
- 'Manager impact' is the investment performance compared to the strategic benchmark. This was negative over the last quarter as the total fund returned 0.3% below the benchmark.
- The 'cashflow effects' reflect factors such as pension payments, contributions and disinvestments.
- Overall the investment factors have had a negative impact on the estimated funding level of the Fund over the last quarter.
- Over the last year, investment factors have had a negative effect due to a fall in the discount rate assumption, which increases the value placed on the liabilities ('interest rate change'). This was offset to some extent by the positive asset returns ('market volatility') and the decrease in the inflation assumption ('inflation rate change'), all else being equal.

## 4 Fund Valuations

The table below shows the asset allocation of the Fund as at 31 December 2014, 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 2014		31 December 2014		Strategic Benchmark Weight %
	Value £'000	Proportion of Total %	Value £'000	Proportion of Total %	
Developed Market Equities	1,740,605	49.2	1,806,587	49.6	40.0
Emerging Market Equities	339,745	9.6	332,124	9.1	10.0
Diversified Growth Funds	118,799	3.4	121,263	3.3	10.0
Bonds	778,076	22.0	829,133	22.8	20.0
Fund of Hedge Funds	163,610	4.6	160,243	4.4	5.0
Infrastructure	-	-	-	-	5.0
Cash (including currency instruments)	103,242	2.9	87,515	2.4	-
Property	295,202	8.3	304,782	8.4	10.0
<b>TOTAL FUND VALUE</b>	<b>3,539,279</b>	<b>100.0</b>	<b>3,641,647</b>	<b>100.0</b>	<b>100.0</b>

Source: Data provided by WM Performance Services

- The value of the Fund's assets increased by £102m over the fourth quarter of 2014 to £3,642m.
- The changes in asset allocation over the quarter are predominantly due to market movements, as there have only been relatively small investments/disinvestments.
- Bonds and Developed Market Equities produced the highest returns over the quarter, with their allocations increasing by 0.8% and 0.4% respectively. The Emerging Market Equity allocation reduced by 0.5%, similarly mainly due to the performance of the market.
- The positions continue to reflect the decision to fully disinvest from the Barings Dynamic Asset Allocation Fund in Q3 2014 following the departure of the lead fund managers. Almost all proceeds from this sale were invested in the BlackRock Multi Asset portfolio, and the remainder in Cash.
- The Fund has appointed IFM as infrastructure manager, whose allocation is expected to be met from equities over time, thus reducing the current overweight position.
- The allocation to equities and bonds is expected to fall and the allocation to DGF increase as the Standard Life Global Absolute Return Strategies Fund investment is initiated over Q1 2015.

Manager	Asset Class	30 September 2014		Net new money £'000	31 December 2014	
		Value	Proportion of Total		Value	Proportion of Total
		£'000	%		£'000	%
Jupiter	UK Equities	163,669	4.6	-	166,170	4.6
TT International	UK Equities	183,858	5.2	-	187,070	5.1
Schroder	Global Equities	222,855	6.3	-	235,975	6.5
Genesis	Emerging Market Equities	154,408	4.4	-	152,336	4.2
Unigestion	Emerging Market Equities	185,337	5.2	-	179,789	4.9
Invesco	Global ex-UK Equities	254,766	7.2	-	269,440	7.4
SSgA	Europe ex-UK Equities and Pacific incl. Japan Equities	110,065	3.1	-	110,939	3.0
Pyrford	DGF	118,799	3.4	-	121,263	3.3
Barings	DGF	0	0.0	-	0	0.0
MAN	Fund of Hedge Funds	706	0.0	-	587	0.0
Signet	Fund of Hedge Funds	65,940	1.9	-	63,082	1.8
Stenham	Fund of Hedge Funds	38,038	1.1	-	38,225	1.0
Gottex	Fund of Hedge Funds	58,926	1.7	-	58,349	1.6
BlackRock	Passive Multi- asset	1,288,341	36.4	-4,363	1,350,008	37.1
BlackRock (property fund)	Equities, Futures, Bonds, Cash (held for property inv)	14,913	0.4	-	15,728	0.4
RLAM	Bonds	287,071	8.1	-	299,072	8.2
Schroder	UK Property	166,655	4.7	-	173,341	4.8
Partners	Property	139,147	3.9	-	137,559	3.8
Record Currency Mgmt	Dynamic Currency Hedging	1,130	0.0	-	353	0.0
Record Currency Mgmt 2	Overseas Equities (to fund currency hedge)	30,851	0.9	-	32,369	0.9
Internal Cash	Cash	53,805	1.5	4,363	49,992	1.4
Rounding		0	0.0	-	0	0.0
<b>TOTAL</b>		<b>3,539,279</b>	<b>100.0</b>	<b>0</b>	<b>3,641,647</b>	<b>100.0</b>

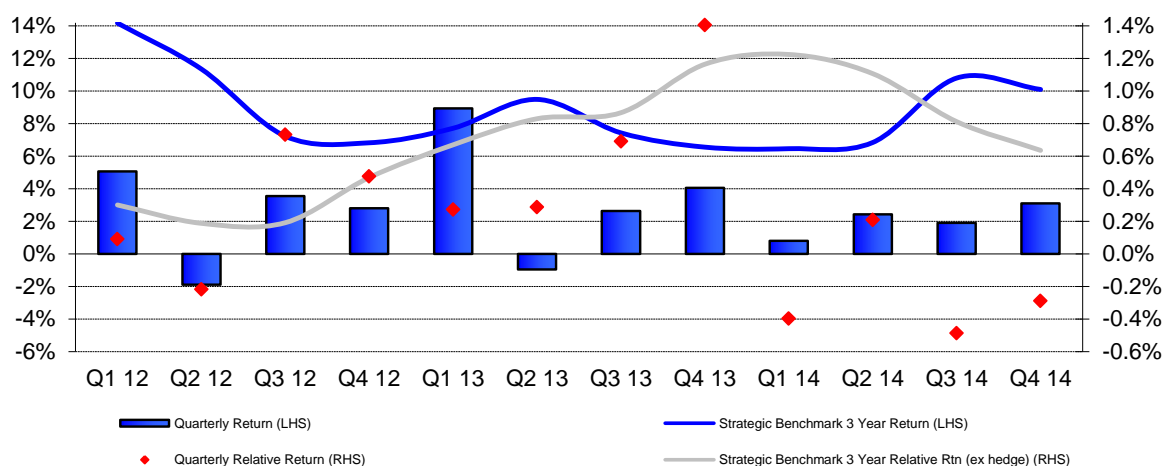
Source: Avon Pension Fund Data provided by WM Performance Services

## 5 Performance Summary

### Total Fund performance

The chart below shows the absolute performance of the total Fund's assets over the last 3 years.

Total Fund absolute and relative performance



Fund	3 months (%)	1 year (%)	3 years (% p.a.)
Total Fund (inc currency hedge)	3.1	8.4	11.1
Total Fund (ex currency hedge)	3.1	8.4	10.8
Strategic Benchmark (no currency hedge)	3.4	9.5	10.1
Relative (inc currency hedge)	-0.3	-1.0	+0.9

Source: Data provided by WM Performance Services

- The largest component of the quarter's underperformance was stock selection in overseas developed equities. This was partially offset by an overweight allocation to overseas equities during a quarter in which they performed relatively well.

## Benchmark allocation

The table below shows the strategic allocation to each of the major asset classes and the benchmark returns over the quarter and 1 year to 31 December 2014, and thereby analyses what we would expect the strategy to return if all assets had been invested passively and met their benchmark returns.

Asset Class	Weight in Strategic Benchmark	Index returns	Contribution to total benchmark	Index returns	Contribution to total benchmark
		Q4 2014	(quarter)	1 year	(1 year)
UK Equities	15%	0.6%	0.1%	1.2%	0.2%
Overseas Equities	25%	5.5%	1.4%	12.5%	3.1%
Emerging Market Equities	10%	-0.7%	-0.1%	3.9%	0.4%
Diversified Growth Funds	10%	1.1%	0.1%	4.5%	0.4%
UK Government Bonds	3%	11.2%	0.3%	26.1%	0.8%
UK Corporate Bonds	8%	4.3%	0.3%	12.2%	1.0%
Index Linked Gilts	6%	9.4%	0.6%	21.4%	1.3%
Overseas Fixed Interest	3%	2.8%	0.1%	6.4%	0.2%
Fund of Hedge Funds	10%	1.1%	0.1%	4.5%	0.4%
Property	10%	4.6%	0.5%	17.2%	1.7%
<b>Total Fund</b>	<b>100%</b>		<b>3.4%</b>		<b>9.5%</b>

Source: Returns data provided by WM Performance Services

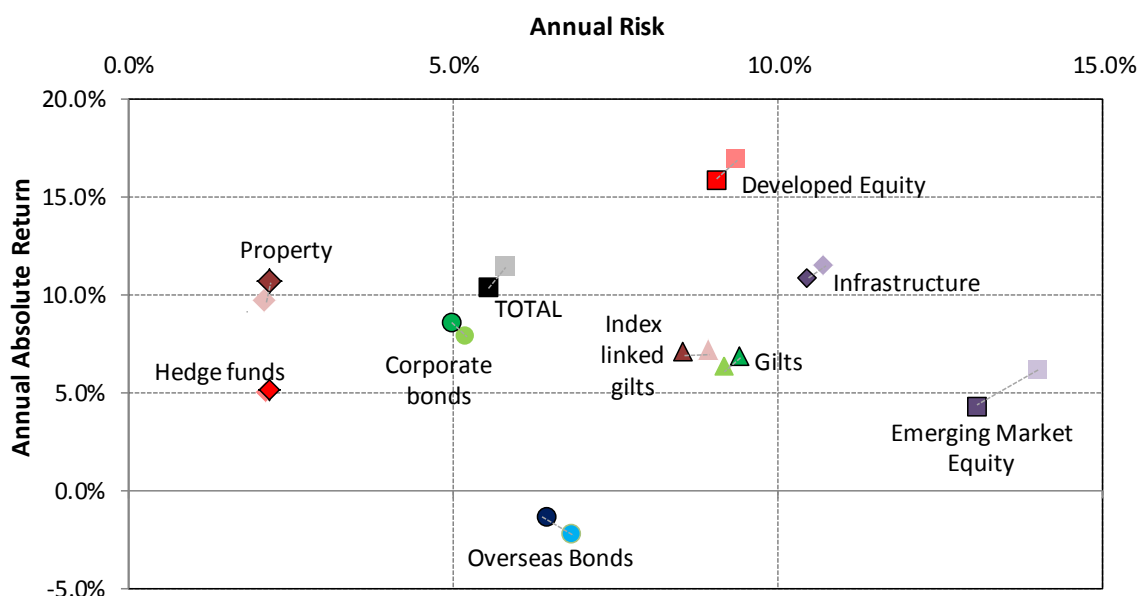
- The benchmark weights above are those held by WM to partly reflect the changes to the investment strategy, agreed in 2013, whilst they are implemented.
- Over the quarter, the benchmark was 3.4%. This was driven by contributions from most asset classes, in particular overseas equities, property and UK bonds (government, corporate and index-linked).
- Over the last twelve months, the benchmark was 9.5%. The main contributing asset classes were the same as over the quarter.
- The assumed strategic return for the Fund as a whole, weighted by the strategic benchmark allocation over the last year, is 7.3% p.a. Hence the actual one-year benchmark return was 2.2% p.a. ahead of this.
  - » The one-year Overseas Fixed Interest return has increased from -0.2% on 30 September 2014 to 6.4%, which is ahead of its assumed strategic return of 5.5%.
  - » The one-year benchmark return for overseas equities was ahead of its assumed strategic return. Property and UK bonds were also well ahead.
  - » UK equities, Emerging market equities and Fund of Hedge Funds were below their assumed strategic returns over the year.

## 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 December 2014 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 17.

**3 Year Risk v 3 Year Return to 31 December 2014**



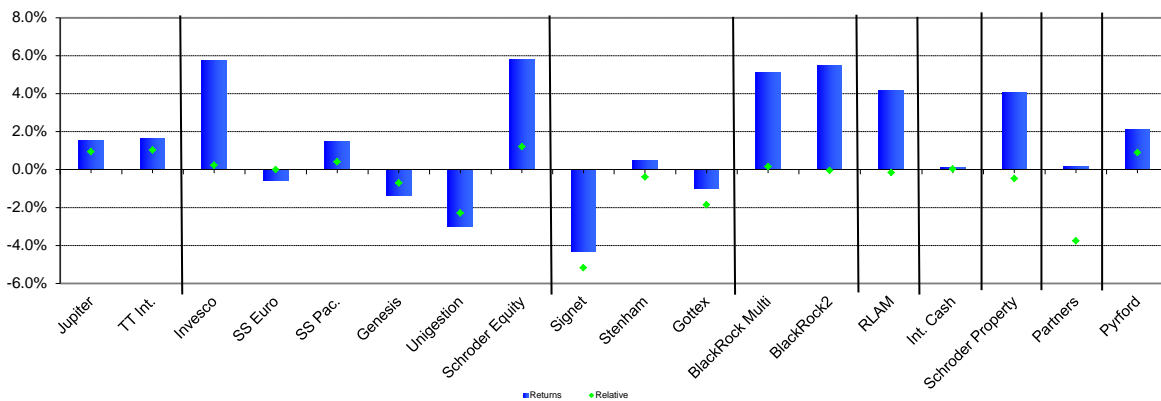
- Overall there has been little change in the three-year risk/return characteristics over the last quarter compared to the previous quarter, other than in Emerging Market Equity.
- Developed equity produced the best 3-year return, of 15.8% p.a. This is slightly lower than as at September 2014 because a very strong quarter has fallen out of the analysis as equity markets rebounded at the end of 2011.
- The next highest returns were Infrastructure (10.8% p.a.) and Property (10.6% p.a.), the same asset classes as last quarter.
- The three year bond returns (Gilts, Index-linked and Corporates) appear stable, however the underlying story is of falling yields and high returns in both the last quarter and Q4 2011.
- The three-year Overseas Bond return has improved, although the absolute return remains negative.
- The falling oil price has affected Emerging Market Equity returns this quarter and hence the three-year return is down from 6.1% p.a. to 4.3% p.a.
- In terms of risk, the three-year volatility has fallen slightly each asset class in the above chart apart from Gilts and Property.
- The three-year return on Developed Equities, Property, Gilts, Index-linked Gilts and Corporate Bonds remain above their assumed strategic return. Hedge funds remain below their assumed strategic return, with emerging market equities and overseas bonds well below.



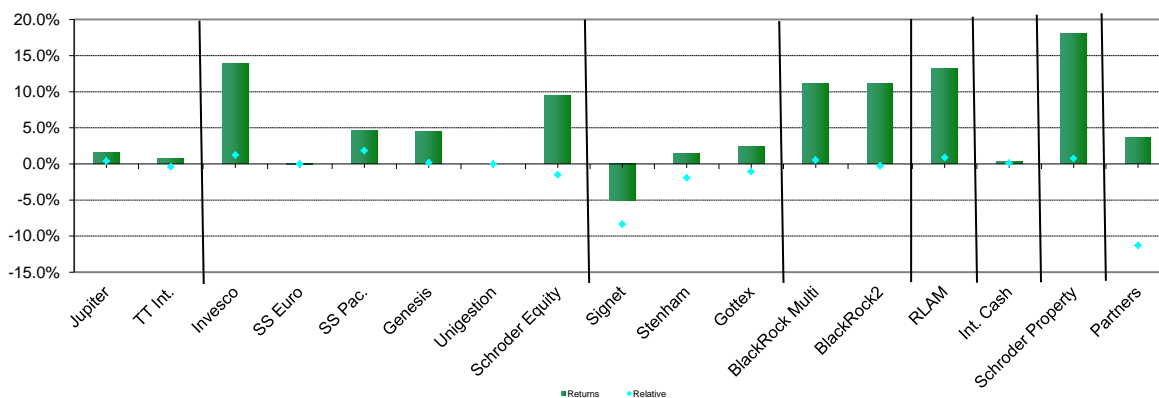
## Aggregate manager performance

The charts below show the absolute return for each manager over the quarter, one year and three years to the end of December 2014. The relative quarter, one year and three year returns are marked with green and blue dots respectively.

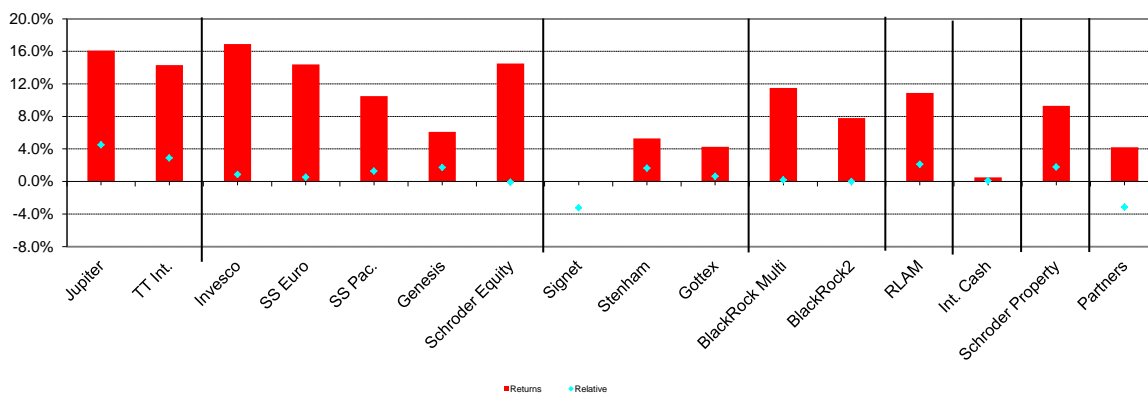
Absolute and relative performance - Quarter to 31 December 2014



Absolute and relative performance - Year to 31 December 2014



Absolute and relative performance - 3 years to 31 December 2014



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 December 2014. 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.

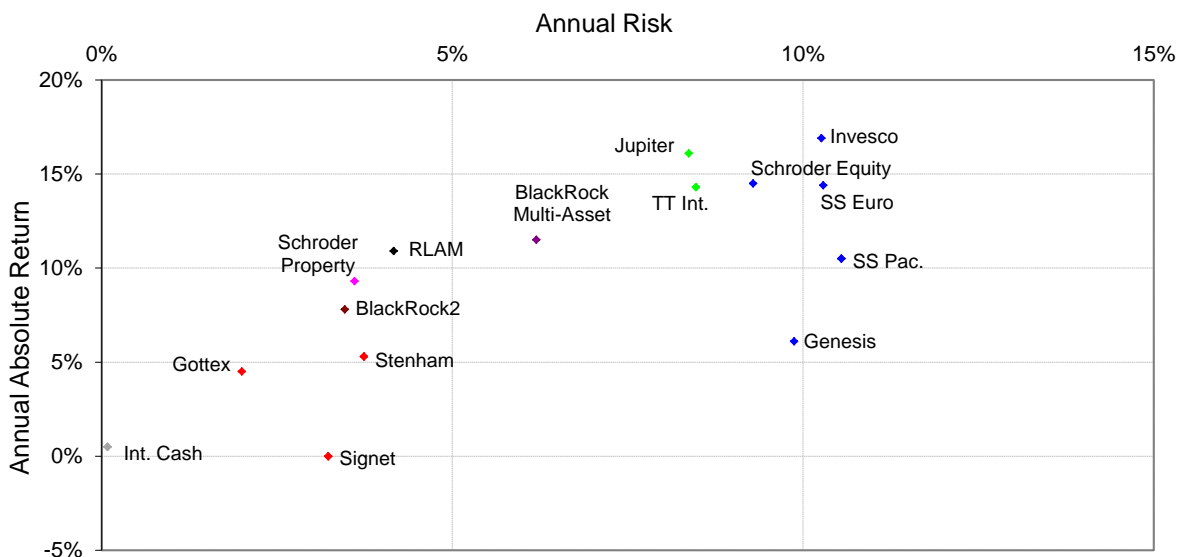
Manager / fund	3 months (%)	1 year (%)	3 years (% p.a.)	3 year performance versus target
Jupiter	+0.9	+0.4	+4.5	Target met
TT International	+1.0	-0.6	+2.8	Target not met
Invesco	+0.2	+1.2	+0.9	Target met
SSgA Europe	+0.0	+0.5	+0.5	Target met
SsgA Pacific	+0.4	+1.9	+1.3	Target met
Genesis	-0.7	+0.2	+1.7	Target met
Unigestion	-2.3	N/A	N/A	N/A
Schroder Equity	+1.2	-2.0	-0.1	Target not met
Signet	-5.2	-8.4	-3.5	Target not met
Stenham	-0.4	-1.9	+1.6	Target met
Gottex	-1.8	-1.1	+0.6	Target met
BlackRock Multi - Asset	+0.1	+0.3	+0.2	Target met
BlackRock 2	0.0	+0.1	+0.1	Target met
RLAM	-0.2	+0.9	+2.1	Target met
Internal Cash	0.0	+0.1	+0.1	N/A
Schroder Property	-0.5	+0.7	+1.5	Target met
Partners Property	-3.7	-11.2	-3.2	Target not met
Pyrford	+0.9	-2.1	NA	N/A

Source: Data provided by WM Performance Services

### Manager and Total Fund risk v return

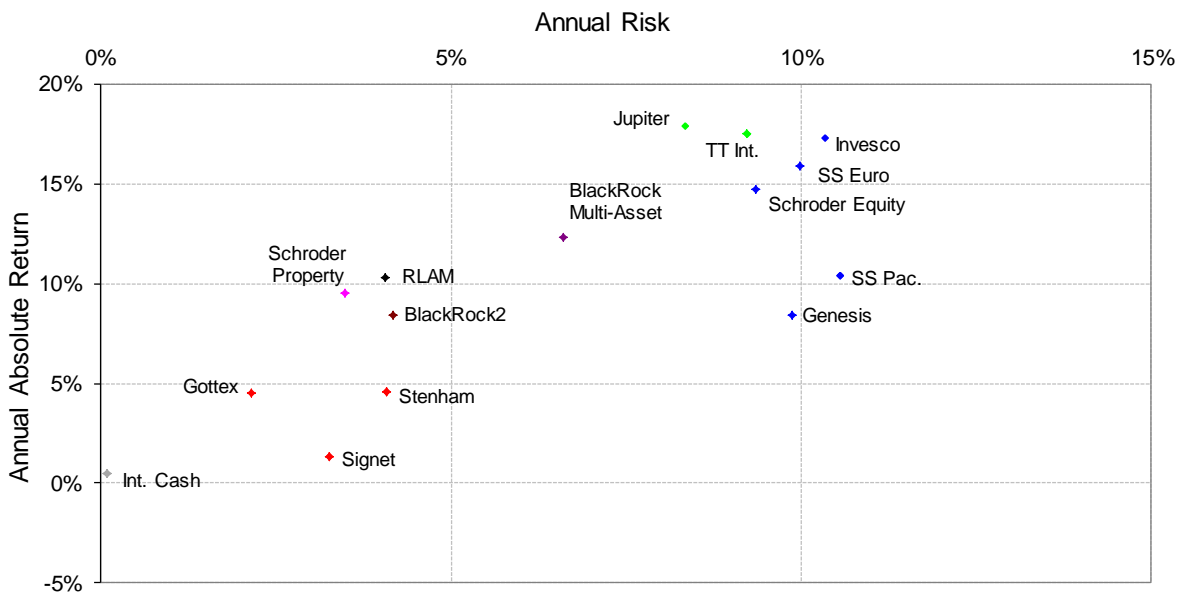
The chart below shows the 3 year absolute return (“Annual Absolute Return”) against the 3 year volatility of absolute returns (“Annual Risk”), based on monthly/quarterly (as available) data points in sterling terms, to the end of December 2014 of each of the funds. We also show the same chart, but with data to 30 September 2014 for comparison.

**3 Year Risk v 3 Year Return to 31 December 2014**



Source: Data provided by WM Performance Services

**3 Year Risk v 3 Year Return to 30 September 2014**



Source: Data provided by WM Performance Services

The managers are colour coded by asset class, as follows:

- » Green: UK equities
- » Red: fund of hedge funds
- » Maroon: multi-asset
- » Grey: internally managed cash
- » Green Square: total Fund
- Blue: overseas equities
- Black: bonds
- Brown: BlackRock No. 2 portfolio
- Pink: Property

- As with the markets' risk/return chart on page 14, overall there has been little change in the three-year risk/return characteristics of the funds over the last quarter compared to the previous quarter.
- The Developed Equity managers continue to produce the highest three-year returns, with each manager producing a double-digit return; the highest returns were from Invesco (16.9% p.a.) and Jupiter (16.1% p.a.). Genesis' three-year return has fallen from 8.4% p.a. to 6.1% p.a., but this is market-driven and they remain ahead of their benchmark and target.
- A double-digit three-year return was also seen from RLAM bonds, increasing from 10.3% p.a. to 10.9% p.a.
- The three-year risk figures have generally fallen slightly over the fourth quarter, with largest decrease from TT (-0.8%). The SSgA risk figure increased slightly (by 0.3%) but remains similar to the Fund's other equity managers. As would be expected, the equity-based funds have the highest volatility and hedge funds, property and fixed interest the lowest.
- Jupiter, TT, Invesco, the two SSgA funds, Schroder Property and RLAM bonds have all outperformed the assumed strategic return and also outperformed their benchmarks. Apart from TT (who are only 0.2% behind), all have also outperformed their targets.
- Schroder Equity has outperformed the assumed strategic return, but is below its individual benchmark and target.
- Stenham's three-year return has improved so that it now has also outperformed the assumed strategic return for hedge funds and also outperformed its benchmark. Gottex are slightly behind the assumed strategic return but ahead of benchmark, and Signet are well behind with a return close to zero over three years.

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# Appendix 1: Market Events

Asset Class	What happened?	
	Positive Factors	Negative Factors
<b>UK Equities</b>	<ul style="list-style-type: none"> <li>■ According to the Office of National Statistics (ONS), the annual GDP growth was revised down to 2.6% in Q3 2014 from the prior estimate of 3%. Despite the downward revision, the UK is still one of the fastest growing economies in the G7.</li> <li>■ The number of people in the UK claiming unemployment benefits fell by 26,900 in November, while the UK unemployment rate remained unchanged at 6% over the three months to October. Also, figures from the Office for National Statistics (ONS) indicate that wage growth in the UK is picking up, as average earnings excluding bonuses in the August-to-October 2014 period were up 1.6% from the year earlier.</li> </ul>	<ul style="list-style-type: none"> <li>■ The uncertainty around the outcome of the general election scheduled for May 2015 is likely to be a headwind for the equity market in the near term. The rise of the UK Independence, Scottish Nationalist and, to a lesser extent, Green parties has increased the range of possible election outcomes.</li> <li>■ The ONS figures indicate that the country's current account deficit further widened from 5.5% of GDP in Q2 2014 to 6.0% in Q3 2014.</li> </ul>
<b>Overseas Equities:</b>		
<b>North America</b>	<ul style="list-style-type: none"> <li>■ The US economy expanded at an annualised rate of 5% in Q3 2014, the fastest pace since 2003. This strong growth follows a 4.6% annualised expansion in Q2 2014. The US GDP has grown at an annualised pace of 3.5% or higher in four of the last five quarters.</li> <li>■ The US job market added 252,000 jobs in December, marking 2014 as the best year for employment growth since 1999. The unemployment rate stood at 5.6% as at the end of December 2014.</li> </ul>	<ul style="list-style-type: none"> <li>■ The Federal Reserve ended the latest round of quantitative easing in October 2014 citing improvement in the labour market and a strengthening economy. The uncertainty around the timing of the first interest rate rise remains a headwind for the equity markets in the near term.</li> </ul>

Asset Class	What happened?	
	Positive Factors	Negative Factors
<b>Europe</b>	<ul style="list-style-type: none"> <li>■ Mario Draghi's briefing in December 2014 indicated that the European Central Bank (ECB) has stepped up preparations to undertake additional stimulus measures to help revive growth in the fragile Eurozone economy. Drawing cues from the recent remarks by Mario Draghi, the market is now anticipating a full-fledged bond-buying program to be announced in Q1 2014.</li> </ul>	<ul style="list-style-type: none"> <li>■ The tail end of Q4 2014 witnessed the resurfacing of talks about Greece leaving the Eurozone as the Greek parliament failed to elect a president, forcing an early election to take place at the end of January 2014.</li> <li>■ Inflation in the Eurozone turned negative in December 2014, as prices fell 0.2% year-on-year, marking the first time since 2009 that prices have dipped into negative territory. The slide into deflation, driven mainly by lower energy costs due to the plunging oil prices, is likely to intensify pressure on the ECB to take further action to stimulate the Eurozone's economy.</li> </ul>
<b>Japan</b>	<ul style="list-style-type: none"> <li>■ The Bank of Japan (BOJ), in a surprise move in October 2014, announced an increase in its asset purchase program from Yen 60-70 trillion per annum to Yen 80 trillion annually. The BOJ would also triple its annual purchase of exchange-traded funds and domestic real estate investment trusts. This was the first policy change since the program started in 2013.</li> <li>■ In October 2014, the government approved the revised asset allocation target for the Government Pension Investment Fund (GPIF). The new allocation would now target domestic and international equities of 25% each, up from 12% each earlier.</li> <li>■ Shinzo Abe's ruling Liberal Democratic Party (LDP) won the snap elections held in December 2014. After retaining a two-thirds majority, Mr Abe now plans to push through reform measures. The Prime Minister had dissolved the lower house of Parliament in November, a day after the data showed that the economy shrank in Q3 2014. The second round of tax increases was also delayed by 18 months to April 2017.</li> </ul>	<ul style="list-style-type: none"> <li>■ In Q3 2014, the Japanese economy contracted by 1.9% on an annualised basis, following a 7.3% contraction in Q2 2014, pushing the economy into a technical recession. The economy has been battling the negative impacts of the sales-tax hike for the last two quarters. Private consumption, which accounts for nearly 60% of the economy, has been particularly hit.</li> </ul>

Asset Class	What happened?	
	Positive Factors	Negative Factors
<b>Asia Pacific</b>	<ul style="list-style-type: none"> <li>■ Asia Pacific (excluding Japan) equities ended Q4 2014 with a return of 3.2%, owing to strong performance by the Chinese equities and hopes of further stimulus measures by the ECB.</li> <li>■ South Korea recorded its 35th consecutive month of trade surplus owing to strong exports, which grew by 3.7% year-on-year in December 2014.</li> </ul>	<ul style="list-style-type: none"> <li>■ The Australian economy grew at a slower-than-expected pace of 0.3% quarter-on-quarter in Q3 2014, missing analysts' estimates of 0.7%. Impact of falling commodity prices and decline in mining investments were the biggest detractors to growth.</li> </ul>
<b>Emerging Markets</b>	<ul style="list-style-type: none"> <li>■ Chinese equities surged nearly 37% (in local currency terms) in Q4 2014 backed by growing expectations of a further policy stimulus. The launch of the Shanghai-Hong Kong Stock Connect program, allowing greater access of Chinese shares to foreigners, also contributed to this boost.</li> <li>■ Indian equities rallied 3.3% (in local currency terms) in Q4 2014 as expectations of falling inflation, driven by falling oil prices, raised hopes of interest rate cuts by the Reserve Bank of India.</li> </ul>	<ul style="list-style-type: none"> <li>■ Russian stocks plunged a little over 30% (in local currency terms) in Q4 2014 amidst fears of an economic collapse triggered by falling oil prices. With Russian oil and gas accounting for 70% of exports and 50% of tax receipts, a continued price slump could indicate big budget cuts for the energy-dependent nation. Moreover, the Russian parliament approved the 2015 budget in December 2014 assuming oil prices at \$100 a barrel.</li> <li>■ In December 2014, the Brazilian central bank sharply revised down its growth forecast for the year 2014 to 0.2% from 0.7% earlier. The central bank also raised the benchmark interest rate to 11.75% in December 2014 from 11.25% earlier amidst rising inflation and a weakening currency.</li> </ul>



Asset Class	What happened?	
	Positive Factors	Negative Factors
<b>Gilts</b>	<ul style="list-style-type: none"> <li>A slowdown in the pace of growth in the UK economy contributed to strong gilts performance over Q4 2014. The average reading for UK Markit/CIPS manufacturing purchasing managers' index (PMI) fell marginally from 53.1 in Q3 2014 to 53.0 in Q4 2014, the weakest reading since Q2 2013. Also, the PMI for service sector, which accounts for nearly 78% of the British economy, fell to 55.8 in December from 58.6 in November. Moreover, a reduction in global growth forecast by the International Monetary Fund (IMF) in October 2014 further boosted gilt prices.</li> </ul>	<ul style="list-style-type: none"> <li>UK Labour Productivity, as measured by output per hour, increased in Q3 2014 by 0.6% and 0.3% when compared to Q2 2014 and Q3 2013 respectively. Output per hour increased in all of the main industrial groupings in the Q3 2014, by 0.5% in the manufacturing sector and 0.6% in the services sector.</li> </ul>
<b>Index Linked Gilts</b>	<ul style="list-style-type: none"> <li>Limited issuance of new index-linked gilts compared with their demand drivers, i.e. pension liabilities, contributed to limited returns in the asset class in Q4 2014.</li> </ul>	<ul style="list-style-type: none"> <li>Performance of index-linked gilts was muted as compared with conventional gilts in Q4 2014. The decelerating pace of UK inflation resulted in subdued performance. The consumer price index (measure of inflation) grew by 1% in November 2014, down from 2% in December 2013, significantly below the Bank of England (BOE) target of 2%.</li> <li>Yields rose in the beginning of November as UK Debt Management Office auctioned £800 million worth of index-linked bonds in the first week of the month.</li> </ul>
<b>Corporate Bonds</b>	<ul style="list-style-type: none"> <li>Investment grade credit continues to be an attractive asset class. Central bank policies remain supportive, while regulatory action is forcing banks to improve their creditworthiness. Also, bond defaults remain low as corporates are increasingly reporting improved operational performance.</li> </ul>	<ul style="list-style-type: none"> <li>The downward revision of global growth forecast by the IMF and reduction in credit spreads over the past few months has left little room for any further contraction of spreads.</li> </ul>
<b>Property</b>	<ul style="list-style-type: none"> <li>UK commercial property values rose by 4.5% for three months ending November 2014 impacting property yields which continue to fall across all sectors. Industrials continue to outpace offices, while retail continues to lag behind.</li> </ul>	<ul style="list-style-type: none"> <li>Mortgage approvals fell to 59,030 in November 2014 from 59,510 in October 2014, showing signs of an impact of tough new affordability tests.</li> <li>Construction PMI fell to 57.6 in December 2014 from 59.4 in November 2014. Although the reading remains above its long-run average of 54.5, it is well below economists' forecasts of 59.0.</li> </ul>

## Economic statistics

	Quarter to 31 December 2014			Year to 31 December 2014		
	UK	Europe <sup>(1)</sup>	US	UK	Europe <sup>(1)</sup>	US
Real GDP growth	0.5%	n/a	0.7%	2.7%	n/a	2.5%
Unemployment rate	6.0%	11.5%	5.6%	6.0%	11.5%	5.6%
Previous	6.3%	11.5%	5.9%	7.1%	11.1%	6.7%
Inflation change <sup>(2)</sup>	-0.2%	-0.3%	-1.4%	0.5%	-0.2%	0.8%
Manufacturing Purchasing Managers' Index	52.5	50.6	53.9	52.5	50.6	53.9
Previous	51.6	50.3	56.6	57.3	52.7	57.0

Source: Thomson Reuters, Markit, Institute for Supply Management, Eurostat, United States Department of Labor, US Bureau of Economic Analysis. "Previous" relates to data as at the previous quarter or year end.

(1) EU changing composition area; (2) CPI inflation measure

## 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	<p>The following indices are used for asset returns:</p> <p>UK Equities: FTSE All-Share Index</p> <p>Overseas Equities: FTSE AW All-World ex UK</p> <p>UK Gilts (&gt;15 yrs or &gt;20 yrs): FTSE Brit Govt Fixed Over 15 (or 20) Years Index</p> <p>Corporate Bonds(&gt;15 yrs AA): iBoxx £ Corp 15+ Years AA Index</p> <p>Non-Gilts (&gt;15 yrs): iBoxx £ Non-Gilts 15+ Years Index</p> <p>Index Linked Gilts (&gt;5yrs): FTSE Brit Govt Index Link Over 5 Years Index</p> <p>Hedge Funds: CS/Tremont Hedge Fund Index</p> <p>Commodities: S&amp;P GSCI Commodity GBP Total Return Index</p> <p>High Yield: Bank Of America Merrill Lynch Global High Yield Index</p> <p>Property: IPD Property Index (Monthly)</p> <p>Infrastructure: FTSE MACQ Global Infrastructure Index</p> <p>Cash: 7 day London Interbank Middle Rate</p> <p>Price Inflation: All Items Retail Price Index</p> <p>Earnings Inflation: UK Average Weekly Earnings Index - Whole Economy excluding Bonuses</p>
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: 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	-
Unigestion	Emerging Market Equities	MSCI EM NET TR	+2-4%
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%
Pyrford	DGF	RPI + 5%	-
Cash	Internally Managed	7 day LIBID	



### **JLT Employee Benefits**

St James's House  
7 Charlotte Street  
Manchester M1 4DZ  
Tel: +44 (0)161 957 8000  
Fax: +44 (0)161 957 8040

JLT Employee Benefits, a trading name of JLT Benefit Solutions Limited.  
Authorised and regulated by the Financial Conduct Authority. A member of the Jardine Lloyd Thompson Group.  
Registered Office: The St Botolph Building, 138 Houndsditch, London EC3A 7AW.  
Registered in England Number 02240496. VAT No. 244 2321 96