

**London Borough of Hammersmith
& Fulham Pension Fund**

**Investment Performance Report to 30
September 2018**

Deloitte Total Reward and Benefits Limited
November 2018

Contents

1	Market Background	3
2	Performance Overview	4
3	Total Fund	5
4	Summary of Manager Ratings	9
5	London CIV	13
6	Majedie – UK Equity	14
7	Legal and General – Global Equity	16
8	Ruffer – Absolute Return	17
9	Insight – Bonds Plus	18
10	Partners Group – Multi Asset Credit	19
11	Oak Hill Advisors – Diversified Credit Strategies Fund	21
12	Partners Group – Direct Infrastructure	22
13	Aviva Investors – Infrastructure Income	24
14	M&G – Inflation Opportunities	26
15	Aberdeen Standard Investments – Long Lease Property	27
	Appendix 1 – Fund and Manager Benchmarks	29
	Appendix 2 – Manager Ratings	30
	Appendix 3 – Risk warnings & Disclosures	31

1 Market Background

1.1 Three months and twelve months to 30 September 2018

The UK equity market experienced a decline over the third quarter of 2018, as the FTSE All Share Index delivered a return of -0.8% following heightened Brexit uncertainties. The risk of a 'no deal' scenario increased as the deadline for reaching a deal with the EU approaches, and against a wider backdrop of a potential slow-down in global growth. These factors were partly offset by immediate UK employment and wage growth data remaining robust, and the weakening of sterling boosting the value of overseas earnings when converted back into sterling. The FTSE 100 Index fell by 0.7% while the FTSE 250 fell 1.8% over the quarter as smaller more UK-centric companies were more exposed to Brexit related uncertainties. At the sector level, Health Care was the best performing sector returning 4.7%, while Telecommunications was the worst performing sector delivering a negative return of -6.6%.

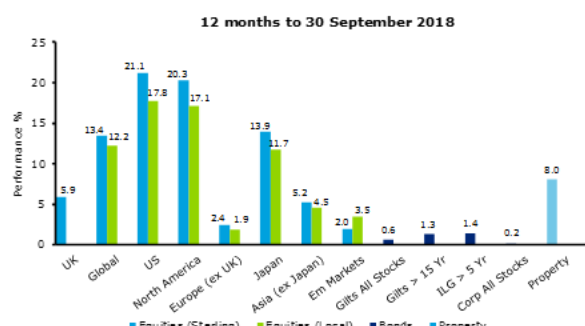
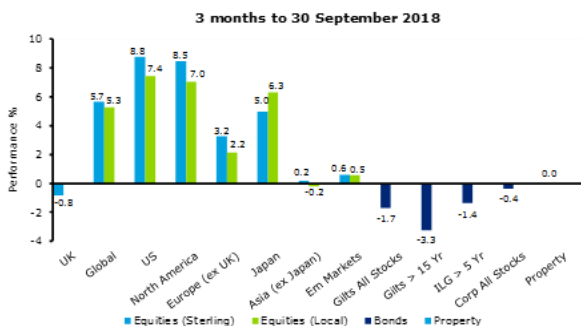
Global equity markets made gains over the third quarter driven by the US, which continued to report strong earnings and economic data, despite a backdrop of geopolitical tensions and escalating trade wars. Global equities outperformed UK equities in both local currency terms (4.8%) and sterling terms (5.7%). The weakening of sterling over the quarter amid continued uncertainties over Brexit meant that currency hedging detracted from returns over the quarter. The US (8.8%) was the best performing region in local terms while the worst performing region – other than the UK – was Asia Pacific ex Japan which delivered a broadly flat return of -0.2%.

Nominal gilt yields increased across the curve as the Bank of England raised the base rate in the UK from 0.5% to 0.75%, and the All Stocks Gilts Index subsequently delivered a return of -1.7% over the quarter. Real yields fell at the very short end but increased for mid- and longer-dated maturities. The overall increase led to the Over 5 Year Index-Linked Gilts Index to deliver a negative return of -1.4% over the period. Credit spreads narrowed over the third quarter, and the iBoxx All Stocks Non Gilt Index subsequently outperformed the gilt indices, falling by 0.4%.

Over the 12 months to 30 September 2018, the FTSE All Share delivered a positive return of 5.9%, which was due to a combination of gains made from the overall improving global economic environment over the year and sterling weakness boosting the value of overseas earnings. There was a wide dispersion of returns at the sector level over the 12-month period. Oil & Gas (19.4%) was the best performing sector as oil prices significantly increased over the period, while Telecommunications (-21.1%) was the poorest performing sector. Global equity markets delivered higher returns than UK markets in both local (11.6%) and sterling terms (13.4%) as overseas markets outperformed the UK, representative of the relatively stronger economic environment overseas in the absence of Brexit related uncertainty.

UK nominal gilts delivered positive returns over the 12 months to 30 September 2018 as yields fell for most middling durations, which was partly offset by an increase at the short-end of the curve. The All Stocks Gilts Index returned 0.6% and the Over 15 Year Gilts Index returned 1.3%. UK index-linked gilts also delivered positive returns, with the Over 5 Year Index-Linked Gilts Index returning 1.4%. Credit spreads widened over the year to 30 September 2018 and corporate bonds underperformed gilts over the year, delivering a broadly flat return of 0.2%.

The IPD UK Monthly Property Index returned 2.2% over the quarter to 30 June 2018 and 10.9% over the year to 30 June 2018, following continued strong demand for UK property – and in spite of the continued uncertainty over Brexit.



Note: Property returns are provided over the quarter and year to 30 June 2018.

2 Performance Overview

2.1 Investment Performance to 30 September 2018

Breakdown of Fund Performance by Manager as at 30 Sept 2018		3	1	2 year	3 year	5 year
Fund	Manager	month	year	p.a.	p.a.	p.a.
Equity Mandate						
	Majedie	-3.9	1.4	7.0	8.8	7.4
FTSE All Share		-0.8	5.7	8.7	11.3	7.4
<i>Difference</i>		-3.0	-4.4	-1.7	-2.5	0.0
	LGIM Global Equity	5.7	13.4	14.1	n/a	n/a
FTSE All World		5.7	13.4	14.2	n/a	n/a
<i>Difference</i>		0.0	-0.1	0.0	n/a	n/a
Dynamic Asset Allocation Mandates						
	Ruffer	-1.0	1.1	0.3	4.0	3.9
3 Month Sterling LIBOR + 4% p.a.		1.2	4.6	4.5	4.5	4.5
<i>Difference</i>		-2.2	-3.5	-4.2	-0.5	-0.6
	Insight	-0.2	-2.6	-1.1	-0.3	n/a
3 Month Sterling LIBOR + 2% p.a.		0.7	2.6	2.5	2.5	n/a
<i>Difference</i>		-0.9	-5.2	-3.6	-2.8	n/a
Private Equity						
	Invesco	10.1	25.6	12.1	12.7	18.8
	Unigestion	0.4	4.9	5.5	10.9	7.9
Secure Income						
	Partners Group MAC	1.5	3.6	4.9	5.3	n/a
3 Month Sterling LIBOR + 4% p.a.		1.2	4.6	4.5	4.5	n/a
<i>Difference</i>		0.3	-1.0	0.4	0.8	n/a
	Oak Hill Advisors	1.4	1.1	3.0	4.6	n/a
3 Month Sterling LIBOR + 4% p.a.		1.2	4.6	4.5	4.5	n/a
<i>Difference</i>		0.2	-3.5	-1.5	0.1	n/a
	Partners Group Infra	3.7	3.1	-2.4	1.8	n/a
	Aviva Infra Income	0.7	n/a	n/a	n/a	n/a
Inflation Protection						
	M&G	1.9	5.7	4.2	8.7	n/a
RPI + 2.5% p.a.		1.5	5.8	6.1	5.5	n/a
<i>Difference</i>		0.3	0.0	-1.8	3.2	n/a
	Aberdeen Standard	1.8	8.3	9.2	7.5	n/a
FT British Government All Stocks		-1.2	2.6	0.5	5.0	n/a
<i>Difference</i>		3.0	5.7	8.7	2.5	n/a
Total Fund		1.5	5.3	6.8	9.5	8.5
Benchmark*		2.1	7.5	7.8	9.7	6.2
<i>Difference</i>		-0.6	-2.1	-1.0	-0.2	2.3

Source: Northern Trust (Custodian). Figures are quoted net of fees and estimated by Deloitte. Differences may not tie due to rounding.

(*) The Total Assets benchmark is the weighted average performance of the target asset allocation.

3 Total Fund

3.1 Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.)	Three Years (% p.a.)	Five Years (% p.a.)
Total Fund – Gross of fees	1.6	5.8	7.3	9.9	9.0
Net of fees ⁽¹⁾	1.5	5.3	6.8	9.5	8.5
Benchmark ⁽²⁾	2.1	7.5	7.8	9.7	6.2
Net performance relative to benchmark	-0.6	-2.1	-1.0	-0.2	2.3

Source: Northern Trust. Relative performance may not sum due to rounding.

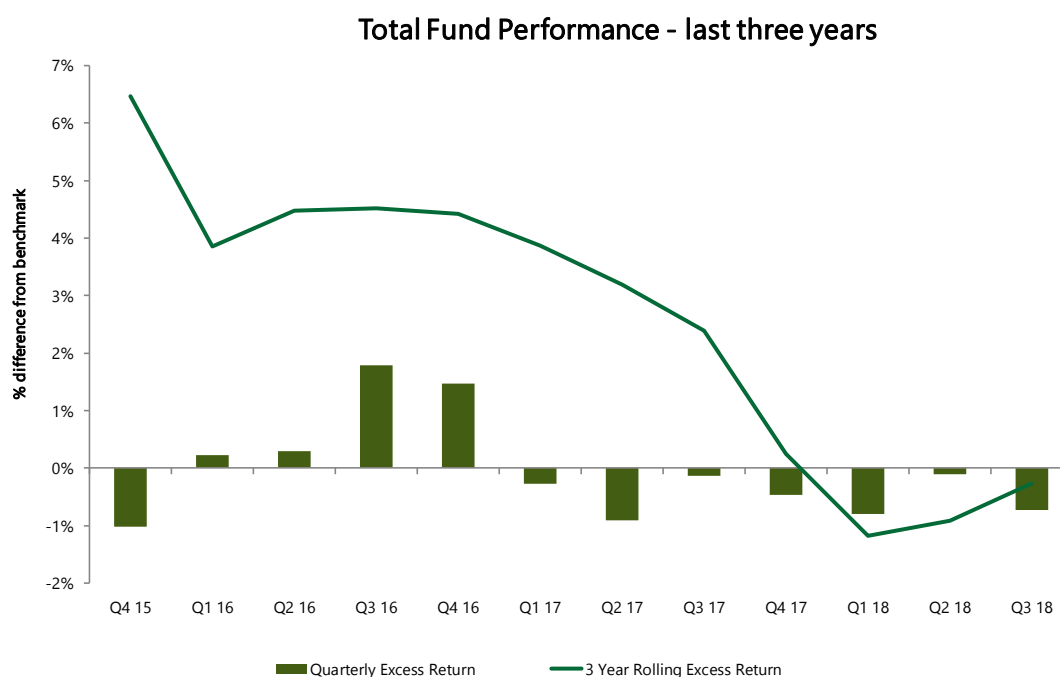
(1) Estimated by Deloitte

(2) Average weighted benchmark

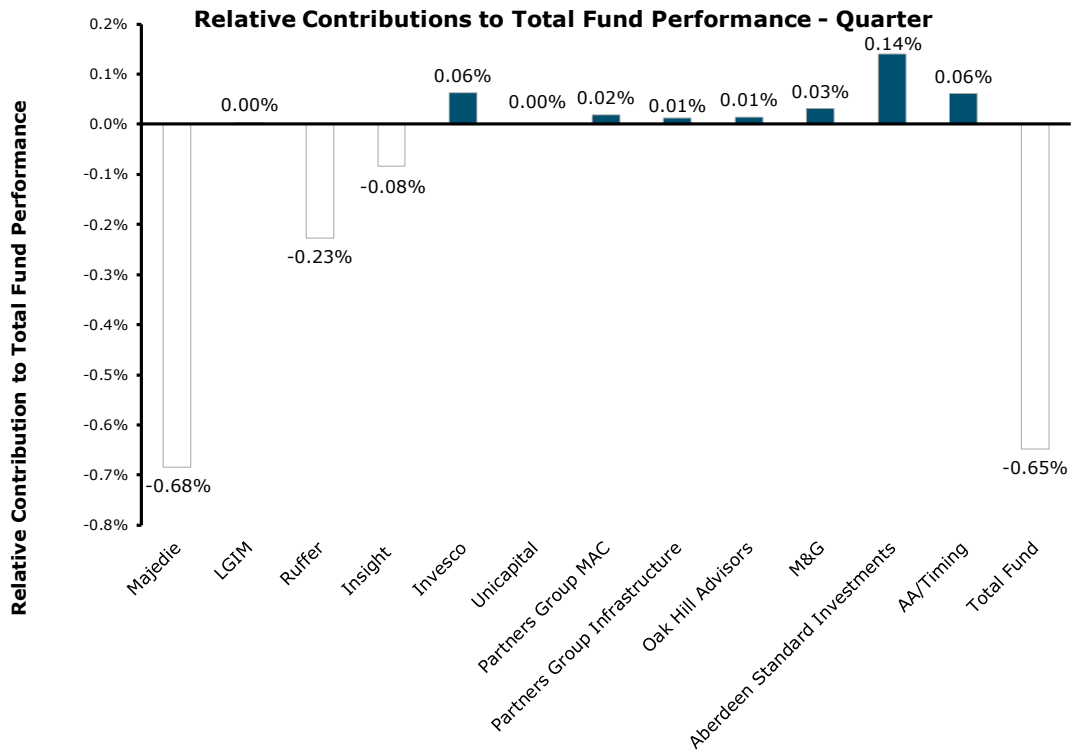
Over the quarter to 30 September 2018, the Total Fund returned 1.5% net of fees, underperforming its fixed weight benchmark by 0.6%.

Over the 12 month period, the Fund delivered a net return of 5.3%, underperforming the benchmark by 2.1%. Over the three year period the Fund underperformed the benchmark by 0.2% p.a. but remains ahead of the benchmark over the five year period by 2.3% p.a.

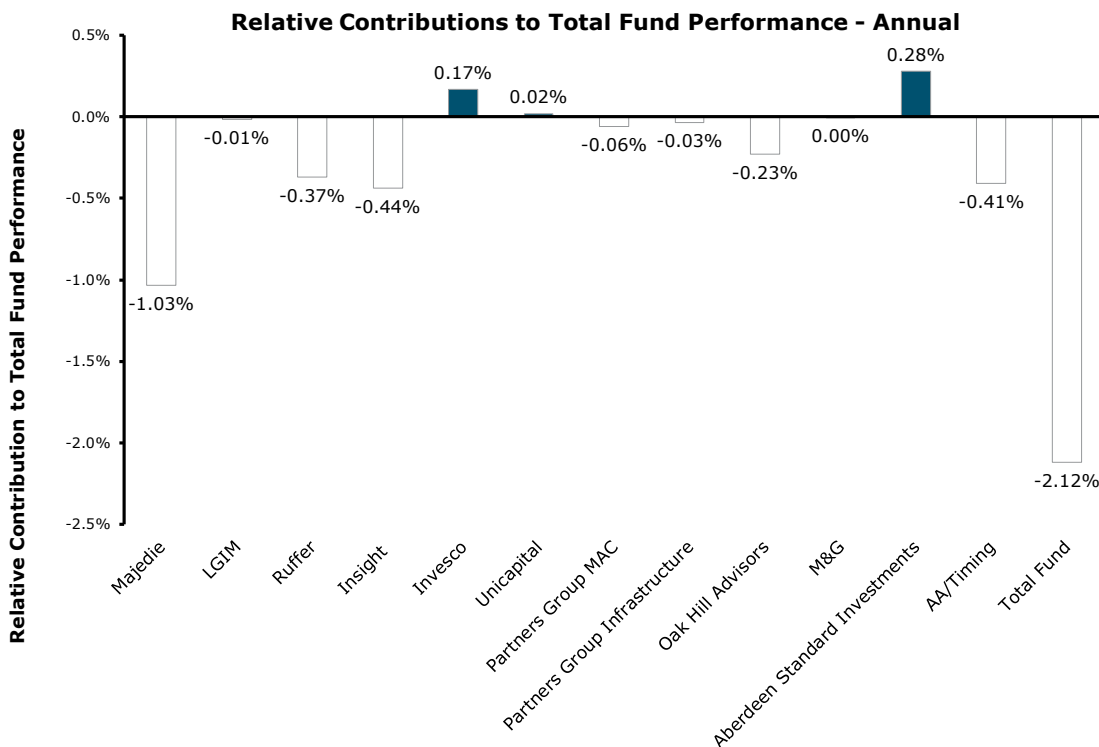
The chart below compares the net performance of the Fund relative to the fixed weight benchmark over the three years to 30 September 2018. The 3 year rolling excess return has been declining over recent quarters. This was to be expected as a result of the strong performance from Majedie towards the end of 2014 and start of 2015 dropping out of the 3 year calculations. The recent underperformance from Majedie and Ruffer has been the main contributor to the declining 3 year rolling excess returns.



3.2 Attribution of Performance to 30 September 2018



The Fund underperformed the composite benchmark by 0.6% on a net of fees basis over the third quarter of 2018, largely as a result of underperformance from Majedie. Ruffer and Insight also detracted from performance over the quarter to 30 September 2018.



Over the year to 30 September 2018 the Fund underperformed the composite benchmark by 2.1%. This was largely as a result of the underperformance from Majedie, along with negative contributions from Insight, Ruffer and Oak Hill Advisors. The negative contribution represented by the "AA/Timing" bar was primarily a function of the Fund having an overweight allocation to equities over the 12 month period to 30 September 2018.

3.3 Asset Allocation

The table below shows the assets held by each manager as at 30 September 2018 alongside the Target Benchmark Allocation.

Manager	Asset Class	Actual Asset Allocation				Benchmark Allocation (%)
		30 June 2018 (£m)	30 Sept 2018 (£m)	30 June 2018 (%)	30 Sept 2018 (%)	
Majedie	UK Equity (Active)	175.5	168.9	16.9	16.0	15.0
LGIM	Global Equity (passive)	323.9	342.3	31.3	32.4	30.0
	Total Equity	499.3	511.2	48.2	48.4	45.0
Ruffer	Absolute Return	132.0	130.9	12.7	12.4	10.0
Insight	Bonds Plus	87.1	87.0	8.4	8.2	10.0
	Total Dynamic Asset Allocation	219.0	217.9	21.2	20.6	20.0
Invesco	Private Equity	4.0	4.4	0.4	0.4	0.0
Unicapital	Private Equity	1.6	1.6	0.2	0.2	0.0
	Total Private Equity	5.6	6.0	0.5	0.6	0.0
Partners Group	Multi Asset Credit	37.6	38.3	3.6	3.6	5.0
Oak Hill Advisors	Diversified Credit Strategy	72.1	73.2	7.0	6.9	7.5
Partners Group	Direct Infrastructure	9.1	13.5	0.9	1.3	5.0
Aviva	Infrastructure Income	28.2	28.2	2.7	2.7	2.5
	Secure Income	147.0	153.2	14.2	14.5	20.0
M&G	Inflation Opportunities	100.4	102.3	9.7	9.7	10.0
Aberdeen Standard Investments	Long Lease Property	53.0	54.0	5.1	5.1	5.0
	Total Inflation Protection	153.4	156.3	14.8	14.8	15.0
LGIM	Liquidity Fund	10.8	10.9	1.0	1.0	0.0
	Total	1,035.3	1,055.6	100.0	100.0	100.0

Source: Northern Trust (Custodian) and have not been independently verified

Figures may not sum to total due to rounding

3.4 Yield Analysis as at 30 September 2018

The following table shows the running yield on the Fund's investments:

Manager	Asset Class	Yield as at 30 September 2018
Majedie	UK Equity	2.90%*
LGIM	Global Equity	0.21%**
Ruffer	Dynamic Asset Allocation	1.20%
Insight	Dynamic Asset Allocation	0.67%
Partners Group MAC	Secure Income	3.65%
Oak Hill Advisors	Secure Income	6.20%
M&G	Inflation Protection	2.60%
Aberdeen Standard Investments	Inflation Protection	4.05%
	Total	1.76%

*Majedie yield provided by the London CIV and is a historic yield, reflecting distributions declared over the past 12 months as a percentage of average market value. Yield as at 30 June 2018.

**Benchmark yield is 2.4% (represents the income that would be generated).

4 Summary of Manager Ratings

The table below summarises Deloitte's ratings of the managers employed by the Fund and triggers against which managers should be reviewed.

Manager	Mandate	Triggers for Review	Rating
Majedie	UK Equity	Further turnover within the core investment team Re-opening the UK equity products with no clear limits on the value of assets that they would take on	1
LGIM	Global Equities	Major deviation from the benchmark return Significant loss of assets under management	1
Ruffer	Absolute Return	Departure of either of the co-portfolio managers from the business Any significant change in ownership structure	1
Insight	Bonds Plus	A significant increase or decrease to the assets under management with no set limits Significant changes to the team managing the Fund	1
Partners Group	Multi Asset Credit	Significant changes to the investment team responsible for the Fund *Note the mandate is subject to a 7 year lock-up period	1
	Direct Infrastructure	Significant changes to the investment team responsible for the Fund. *Note the mandate is subject to a 10 year lock-up period	1
Aviva Investors	Infrastructure Income	Significant changes to the investment team responsible for the Fund	1
Oak Hill Partners	Diversified Credit Strategy	Significant changes to the investment team responsible for the Fund. Significant changes to the liquidity of underlying holdings within the Fund.	1
M&G	Inflation Opportunities	If the Fund's portfolio manager Gary Parker was to leave the business or cease to be actively involved in the Fund, this would trigger a review of the Fund. Failure to find suitable investments within the initial two year funding period.	1
Aberdeen Standard Investments	Long Lease Property	Richard Marshall leaving the business or ceasing to be actively involved in the Fund without having gone through an appropriate hand-over. A build up within the Fund of holdings with remaining lease lengths around 10 years.	1

4.1 London CIV

Business

As at 30 September 2018, the London CIV had 12 sub-funds and assets under management of £7.6bn. The total assets under oversight (which includes passive investments held outside of the CIV platform) increased over the quarter from c. £16.2bn to c. £17.3bn and represents c. 47% of the 32 London Borough's total AuM.

Personnel

The LCIV hired two new investment analysts over the quarter (Umer Nazir and Pruthvi Odedra) as well as welcoming back Maggie Abrahams as Deputy Chief Operating Officer. Will McBean also joined the client team over the quarter.

Deloitte view – It is crucial that steps are taken to rebuild the senior management team and an appropriate strategy agreed for taking the pool forward, getting "buy-in" from the shareholders. We are continuing to monitor developments on the business side as well as the new fund launches.

4.2 Majedie

Business

The total assets under management for Majedie was c. £14.1bn as at 30 September 2018, a decrease of c. £0.9bn over the third quarter of 2018.

Personnel

There were no significant team or personnel changes over the quarter to 30 September 2018.

Deloitte view – We continue to rate Majedie positively for its UK Equity capabilities.

4.3 LGIM

Business

As at 30 June 2018, Legal & General Investment Management (“Legal & General”) had total assets under management (“AuM”) of £985bn, an increase of £2bn since 31 December 2017.

Personnel

At a firm level, LGIM announced in July that Mark Zinkula, CEO of LGIM (UK), would be retiring on 31 August 2019. The announcement had been expected to an extent, as Mark had always made clear his period based in the UK would be finite and that he planned to return to the US. The 13-month notice period is expected to give LGIM sufficient time to appoint a replacement and ensure a smooth transition.

In August, LGIM announced that Siobhan Boylan, Chief Financial Officer, would be leaving at the end of the year. In October, LGIM announced that Richard Lee would be taking on the CFO role from November. Richard, currently Group Performance Director, was previously CFO and Chief Risk Officer for Legal & General Retirement.

At the Index team level, there were no new joiners but one leaver over the third quarter of 2018, as Harvey Sidhu left his role as Head of Index Plus.

At the LDI team level, LGIM announced that Simon Wilkinson, Head of Solutions Portfolio Management, will be leaving the firm to pursue other interests. Guy Whitby-Smith, previously Co-Head of LDI Portfolio Construction, was promoted to replace Simon as Head of Solutions Portfolio Manager with effect from October 2018. Guy has worked closely with Simon and has played a leading role in his previous position in evolving LGIM’s business beyond traditional LDI strategies into a wider range of holistic risk management solutions. LGIM have confirmed they will shortly be announcing two further senior appointments in the investment team.

During the third quarter of 2018, there were two new joiners to the LDI team and three leavers. Two new solutions portfolio managers – Fiona Wu and Camille Paret – were hired, while Jeremy Rideau (Portfolio Solutions Pooled Fund Manager), Azeem Malik (Quantitative Modelling Analyst) and Natalie Stimpson (Solutions Strategist) left their respective roles.

Deloitte View

We continue to rate Legal & General positively for its passive and LDI capabilities. We feel the changes to the LDI team, particularly the departure of Simon Wilkinson, are significant given Simon’s status. While we do not have any major concerns at this stage, we will continue to monitor updates of LGIM’s succession plan.

4.4 Ruffer

Business

Total assets under management was £21.8bn as at 30 September 2018, a decrease from £22.3bn at 30 June 2018. Pension fund client pitches and new mandates continued to grow over the quarter. Outflows were mainly from partial de-risking by existing clients.

Personnel

There were no significant team or personnel changes over the third quarter of 2018.

Deloitte view – The Ruffer product is distinctive within the universe of diversified growth managers with the manager willing to take contrarian, long term positions, where necessary drawing on the expertise of external funds.

4.5 Insight

Business

Insight's total AuM remained broadly unchanged over the quarter, with over £600bn in assets under management, as at 30 September 2018. Total assets in Insight's Bonds Plus Fund was £4.2bn as at 30 September 2018, an increase of c. £0.1bn over the quarter.

Personnel

Insight made no changes to the Bonds Plus team over the quarter.

Deloitte view – Performance of the Bonds Plus fund has been disappointing. We are currently conducting a review of the product.

4.6 Partners Group

Business - Multi Asset Credit

The net asset value of the MAC Fund was c. £159m as at 30 September 2018, a fall of c. £1m from 30 June 2018 following the two distributions made in July and August more than offsetting the positive return in the quarter. The investment period for the 2014 MAC vintage finished at the end of July 2017, and the fund is continuing to make distributions back to investors in 2018.

Business - Direct Infrastructure

Total commitment value as at 30 September 2018 remained at c. €1,080m as the Fund held no further closes over the quarter.

The Fund ended the quarter at c. 30.7% drawn down, with commitment level increasing to 55.6% from 48.3% over the quarter.

Deloitte View - We continue to rate Partners Group for its private market capabilities.

4.7 Oak Hill Advisors – Diversified Credit Strategy (DCS)

Business

The total assets under management were approximately \$32.1bn as at 1 August 2018, a decrease of c. \$0.8bn since 30 June 2018.

The Fund had c. \$125m of net outflows during the quarter.

Personnel

In August, Eric Muller joined the firm as Portfolio Manager and Partner. Eric joined from Goldman Sachs' Merchant Banking Division where he was a partner.

Deloitte view – We are comfortable with how the strategy is being managed and the level of risk within the strategy.

4.8 M&G – Inflation Opportunities Fund

Business

Assets under management in the Inflation Opportunities Fund V Fund as at 30 September 2018 were c. £513m, an increase from c. £506m at the previous quarter end.

Personnel

There were no significant changes to the M&G Inflation Opportunities Fund team over the quarter.

Deloitte view – The strategy has a high allocation to ILGs and has not managed to source as many 'inflation linked opportunities' as originally expected given the change in market conditions. The manager expects to increase the allocation to long lease property and, while we are positive on this asset class, it does create overlap with the Fund's Long Lease Property mandate with Standard Life Investments. As such, the Committee may wish to consider whether there are alternative options that could be considered for all or part of the allocation in this strategy which offer at least a degree of "inflation proofing".

4.9 Aberdeen Standard Investments – Long Lease Property

Business

The Fund's assets under management increased by £0.1bn to c. £2.3bn as at 30 September 2018.

Personnel

There were no team changes for either the Long Lease Property Fund or Ground Rent Fund over the third quarter.

Process

Since the two businesses merged, ASI has put in place a formalised process where all potential transactions are reviewed and an "allocation policy" applied where interest is expressed in the investment by more than one fund/client portfolio.

Deloitte View – We remain positive on long lease property given the long-term, inflation-linked nature of the contractual cashflows which arise from this type of investment.

4.10 Aviva Investors

Business

The Aviva Infrastructure Income Fund had a total subscription value of £1,235m as at 30 September 2018. No investor commitments were received over the third quarter, although the Fund has two investors who have elected to have distributions re-invested. The undrawn amount as at 30 September was £287.2m.

Personnel

Two associates and two analysts were added to the team over the quarter to 30 September 2018, with the aim of providing added resource for the senior team members to assess new opportunities.

Deloitte View - We continue to rate Aviva Investors positively for its infrastructure capabilities.

5 London CIV

5.1 Investment Performance to 30 September 2018

As at 30 September 2018, the London CIV had 12 sub-funds and assets under management of £7,572m. The total assets under oversight (which includes passive investments held outside of the CIV platform) increased over the quarter from c. £16.2bn to £17.3bn.

The table below provides an overview of the sub-funds currently available on the London CIV platform.

Sub-fund	Asset Class	Manager	Total AuM as at 30 June 2018 (£m)	Total AuM as at 30 September 2018 (£m)	Number of London CIV clients	Inception Date
LCIV MJ UK Equity	UK Equity	Majedie	546	526	3	18/05/17
LCIV Global Equity Alpha	Global Equity	Allianz Global Investors	114	120	1	02/12/15
LCIV BG Global Alpha Growth	Global Equity	Baillie Gifford	2,183	2,371	12	11/04/16
LCIV NW Global Equity	Global Equity	Newton	575	616	3	22/05/17
LCIV LV Global Equity	Global Equity	Longview Partners	516	683	4	17/07/17
LCIV EP Income Equity	Global Equity	Epoch Investment Partners	225	235	2	08/11/17
LCIV HN Emerging Market Equity	Global Equity	Henderson Global Investors	105	186	3	11/01/18
LCIV RBC Sustainable Equity Fund	Global Equity	RBC Global Asset Management (UK)	269	283	2	18/04/18
LCIV PY Total Return	Diversified growth fund	Pyrford	312	315	5	17/06/16
LCIV Diversified Growth	Diversified growth fund	Baillie Gifford	507	637	8	15/02/16
LCIV RF Absolute Return	Diversified growth fund	Ruffer	902	912	10	21/06/16
LCIV NW Real Return	Diversified growth fund	Newton	338	194	2	16/12/16
LCIV MAC Fund	Multi Asset Credit	CQS	343	492	6	31/5/18
Total			6,937	7,572		

Over the quarter, the NW Real Return sub fund (managed by Newton) lost one London Boroughs from its client list. Whereas the MAC sub fund (managed by CQS) added two new London Boroughs to its client list and each of the Global Alpha Growth (managed by Baillie Gifford), Global Equity (managed by Longview Partners), Emerging Market Equity (managed by Henderson Global Investors) and Diversified Growth (managed by Baillie Gifford) sub funds each added another London Borough to their client list.

6 Majedie – UK Equity

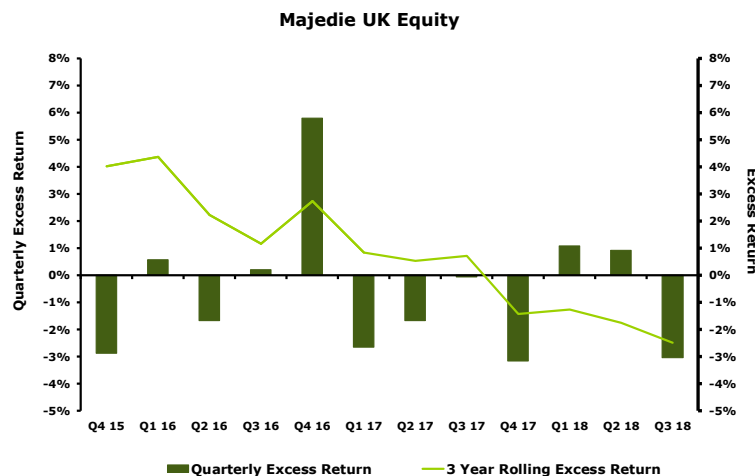
Majedie was appointed to manage an actively managed segregated UK equity portfolio. The manager's remuneration is a combination of a tiered fixed fee, based on the value of assets and a performance related fee of 20% of the outperformance which is payable when the excess return over the FTSE All Share +2% p.a. target benchmark over a rolling three year period. The investment with Majedie comprises a combination of the UK Equity Fund (no more than 30%), the UK Focus Fund and a holding in Majedie's long/short equity fund, Tortoise (no more than 10%).

6.1 UK Equity – Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.) ⁽¹⁾	Three Years (% p.a.)	Five Years (% p.a.)
Majedie – Gross of fees	-3.7	2.0	7.6	9.3	7.9
Net of fees ⁽¹⁾	-3.9	1.4	7.0	8.8	7.4
Benchmark	-0.8	5.7	8.7	11.3	7.4
Target	0.3	7.7	10.7	13.3	9.4
Net performance relative to Benchmark	-3.0	-4.4	-1.7	-2.5	0.0

Source: Northern Trust

(1) Estimated by Deloitte



The strategy delivered a negative return of -3.9% on a net of fees basis over the quarter against a benchmark return of -0.8%. This took the annual performance net of fees to 1.4% versus a benchmark return of 5.7%. The strategy is lagging the benchmark return by 2.5% p.a. over the three year period to 30 September 2018. Although over the five year period to 30 September 2018, the strategy successfully tracked its FTSE based benchmark return on a net of fees basis, but remained 2% p.a. below the target.

6.2 Performance Analysis

The top 10 holdings in the UK Equity strategy account for c. 49.7% of the Fund and are detailed below.

Top 10 holdings as at 30 September 2018	Proportion of Majedie Fund
Majedie Asset Management Special	8.7%
BP	8.2%
Royal Dutch Shell	8.2%
Tesco	5.4%
GlaxoSmithKline	4.2%
WM Morrison	3.6%
HSBC	3.4%
Centrica	3.0%
Orange	2.8%
Vodafone	2.2%
Total	49.7%

Note: The numbers in this table may not sum due to rounding.

Source: London CIV.

The tables below shows the top 5 and bottom 5 contributors to performance over the quarter to 30 September 2018.

Top 5 contributors as at 30 September 2018	Contribution (bps)
BP	+0.27
WM Morrison	+0.14
BT	+0.14
Ensco	+0.14
JLT	+0.14

Top 5 detractors as at 30 September 2018	Contribution (bps)
Majedie Asset Management Special	-0.45
Tesco	-0.36
Vodafone	-0.26
Ryanair	-0.25
Kaz Minerals	-0.23

The Fund's holdings in the Majedie Asset Management Special, Tesco plc and Vodafone Group plc provided the biggest detractions to performance over the quarter to 30 September 2018.

7 Legal and General – Global Equity

Legal and General Investment Manager ("LGIM") was appointed to manage a global equity portfolio with the objective of replicating the performance of the FTSE All World Index benchmark. The manager is remunerated on a tiered fixed fee based on the value of assets.

7.1 Global Equity – Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.)
LGIM – Gross of fees	5.7	13.4	14.2
<i>Net of fees⁽¹⁾</i>	5.7	13.4	14.1
Benchmark	5.7	13.4	14.2
Net Performance relative to Benchmark	0.0	-0.1	0.0

Source: LGIM. Relative performance may not tie due to rounding.

(1) Estimated by Deloitte

On a net of fees basis, the Fund provided returns in line with benchmark over the quarter and two years p.a. periods to 30 September 2018, delivering returns slightly behind its benchmark over the year.

8 Ruffer – Absolute Return

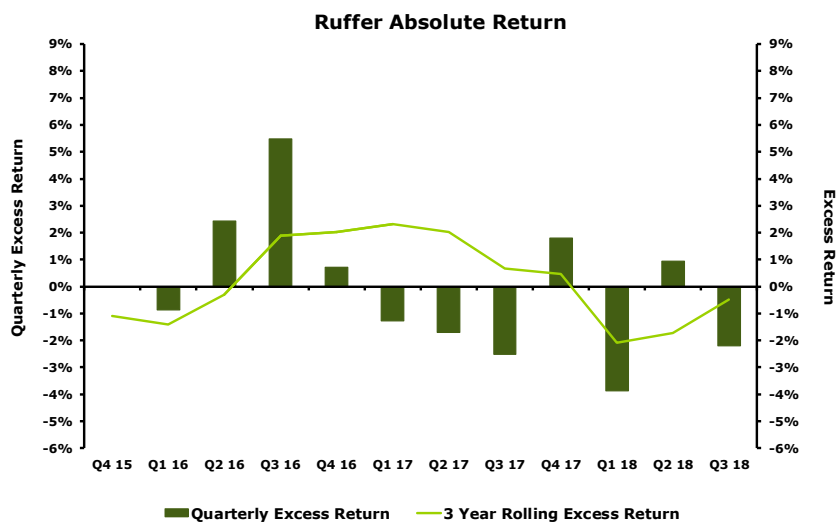
Ruffer was appointed to manage an absolute return mandate with the aim of outperforming the 3 month Sterling LIBOR benchmark by 4% p.a. The manager has a fixed fee based on the value of assets.

8.1 Dynamic Asset Allocation – Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.) ⁽¹⁾	Three Years (% p.a.)	Five Years (% p.a.)
Ruffer - Gross of fees	-0.8	1.9	1.1	4.8	4.8
Net of fees ⁽¹⁾	-1.0	1.1	0.3	4.0	3.9
Benchmark / Target	1.2	4.6	4.5	4.5	4.5
Net performance relative to Benchmark	-2.2	-3.5	-4.2	-0.5	-0.6

Source: Northern Trust. Relative performance may not tie due to rounding.

(1) Estimated by Deloitte



Ruffer underperformed its Libor +4% p.a. target over the third quarter of 2018 by 2.2% net of fees. This takes the 12 month and three year absolute net performance to 1.1% and 4.0% p.a. respectively.

With parts of the commodity complex pressured with a decline in copper price and the index of gold mining shares falling, the portfolio took advantage by raising its exposure to gold miners. Rising US interest rates and further strength in the US dollar negatively impacted the gold and gold equities sector. This led to steep falls in the portfolio's gold mining shares.

Over the 12 month period to 30 September 2018, the Fund underperformed its target by 3.5%. This is largely due to the Fund's relatively unchanged defensive position over the previous 12 months. Much of the drag has come from the portfolio's VIX positions, with very little volatility in the market recently. With volatility subsiding and global equity markets strengthening towards the end of the 12 month period, the protection assets in the portfolio, particularly option protection, have been a deterrent to performance over the longer term.

9 Insight – Bonds Plus

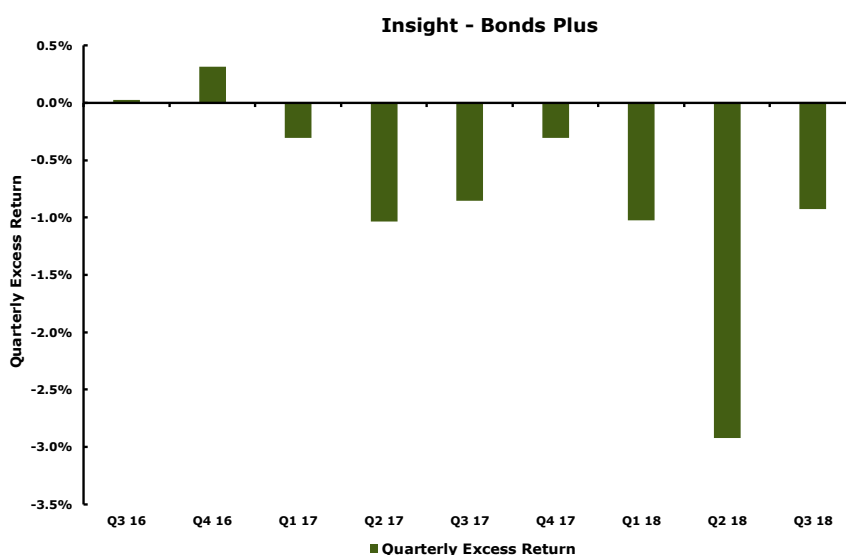
Insight was appointed to manage an active bond portfolio with an aim of outperforming the 3 Month Sterling LIBOR by 2% over a rolling three year period. The fees are based on the value of assets invested in the fund.

9.1 Absolute Return – Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.)	Three Years (% p.a.)
Insight - Gross of fees	-0.1	-2.1	-0.6	0.2
Net of fees ⁽¹⁾	-0.2	-2.6	-1.1	-0.3
Benchmark / Target	0.7	2.6	2.5	2.5
Net performance relative to Benchmark	-0.9	-5.2	-3.6	-2.8

Source: Northern Trust. Relative performance may not tie due to rounding

(1) Estimated by Deloitte



Insight underperformed its target over the third quarter by 0.9% net of fees.

The Fund's long duration positions were negative over the quarter, with a tactical US yield curve flattener (short 2 year versus long 10 year) detracting from performance as the yield curve steepened.

Investment grade credit also provided a small negative due to short holdings in CDS to off-set long holdings in investment grade and high yield cash bonds. Emerging market debt exposure and currency also detracted from performance over the quarter, driven by the sell-off of emerging market debt and the USD versus emerging market currencies respectively.

The Bonds Plus Fund has delivered disappointing returns since inception. Following a meeting with Insight, we understand that the key detractors from performance have come from a number of the fund's strategic views on market. In particular, a number of the longer term country allocation views that was deemed attractive (when trades were initially put on) have moved against them under the current geopolitical environment. Despite the mark-to-market, the manager continues to believe in the positions they have put on and have not cut their positions. Although performance has been weak the manager continues to adopt the same investment process and are not taking additional risk in order to deliver the target return.

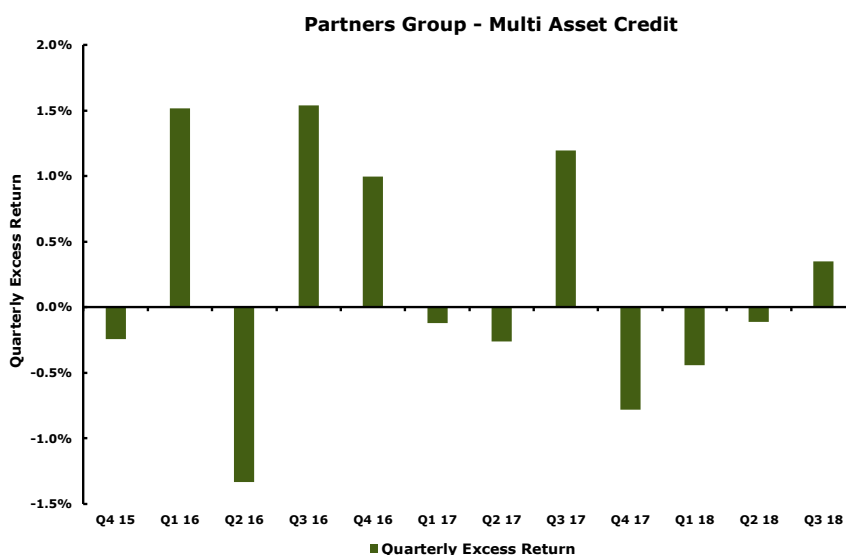
10 Partners Group – Multi Asset Credit

Partners Group was appointed to manage a multi asset credit mandate with the aim of outperforming the 3 month Sterling LIBOR benchmark by 4% p.a. The manager has an annual management fee and performance fee.

10.1 Multi Asset Credit - Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.)	Three Years (% p.a.)
Partners Group MAC - Gross of fees	1.7	4.5	5.8	6.2
Net of fees ⁽¹⁾	1.5	3.6	4.9	5.3
Benchmark / Target	1.2	4.6	4.5	4.5
Net performance relative to Benchmark	0.3	-1.0	0.4	0.8

Source: Northern Trust. Relative performance may not tie due to rounding.



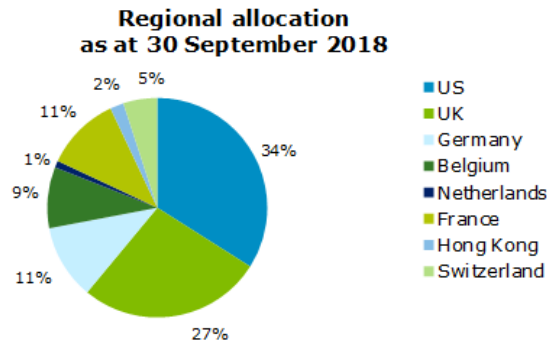
The Fund outperformed its target by 0.3% over the quarter on a net of fees basis.

Over the 12 month period to 30 September 2018, net of fees, the Fund returned 3.6%, underperforming the target by 1.0%.

The Fund returned 5.3% p.a. net of fees over the 3 year period to 30 September 2018, outperforming the target by 0.8% p.a.

10.2 Asset Allocation

The chart below show the regional split of the Fund as at 30 September 2018.



Note: Based on information provided by Partners Group.

The table below shows details of the Fund's five largest holdings based on net asset value as at 30 September 2018.

Investment	Description	Type of Debt	Tranche	Maturity Date	Current IRR (%)	NAV (£m)	% of NAV
Mirion Technologies, Inc.	US Electronic company	Corporate	First Lien	31 Mar 2022	6.7	8.3	9.7%
		Corporate	Second Lien	31 Mar 2023	9.5	6.6	
AS Adventure	Large European specialist multi-brand outdoor retail group	Corporate	First Lien	28 Apr 2022	5.6	14.3	9.3%
IDEMIA	Security and identity solutions company	Corporate	Mezzanine	31 May 2027	12.9	10.7	7.0%
Springer Science & Business Media	German based book, e-book and journal publisher	Corporate	First Lien	15 Aug 2022	5.2	10.0	6.5%
Sabre Industries	US infrastructure products and services provider	Corporate	First Lien	29 May 2022	6.6	9.9	6.4%

Note: Information provided by Partners Group. Current IRR is net of cost and fees of the investment partner but gross of Partners Group fees. For investments with a holding period less than 12 months, the IRR is not annualised.

10.3 Fund Activity

To date, the Fund has made investments in 54 companies, of which 30 have been fully realised as one further realisation took place during the third quarter. The Fund's 3 year investment period ended in July 2017 and, therefore, any investments realised have subsequently been repaid to investors.

During the third quarter, the MAC 2014 Fund realised its debt investment in Ammeraal Beltech, a Dutch conveyer belt manufacturer, as part of a sale of the company.

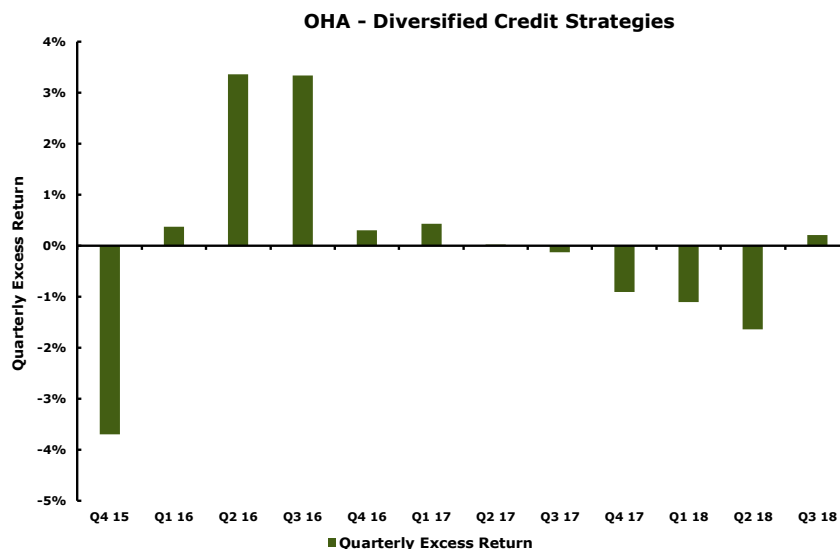
11 Oak Hill Advisors – Diversified Credit Strategies Fund

Oak Hill Advisors was appointed to manage a multi asset credit mandate with the aim of outperforming the 3 month Sterling LIBOR benchmark by 4% p.a. The manager has an annual management fee and performance fee.

11.1 Diversified Credit Strategies - Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (%)	Three Years (% p.a.)
OHA – Gross of fees	1.6	1.8	3.7	5.3
Net of fees ⁽¹⁾	1.4	1.1	3.0	4.6
Benchmark / Target	1.2	4.6	4.5	4.5
Net Performance relative to Benchmark	0.2	-3.5	-1.5	0.1

Source: Northern Trust. Relative performance may not tie due to rounding.



Over the quarter the Diversified Credit Strategies Fund returned 1.4% net of fees in absolute terms, outperforming its target by 0.2%. The Fund underperformed a blended benchmark of high yield and leveraged loans by 0.3% over the quarter to 30 September 2018.

The Fund returned 1.1% net of fees over the longer 12 months period to 30 September 2018, underperforming its target by 3.5%. The Fund's underperformance versus its cash +4% target over the year has largely been down to relatively poor performance in the High Yield and Loans space over this period, with Q1 18 being particularly poor for High Yield. OHA continue to outperform the broader markets, and are ahead of target over longer periods.

12 Partners Group – Direct Infrastructure

Partners Group was appointed to manage a global infrastructure mandate with the aim of outperforming the 3 month Sterling LIBOR benchmark by 8% p.a. The manager has an annual management fee and performance fee.

12.1 Direct Infrastructure - Investment Performance to 30 September 2018

Activity

The Fund continued to build up its portfolio over the quarter, which comprised thirteen active investments as at 30 September 2018.

During the third quarter of 2018, the Fund added four new investments to its portfolio: Grassroots Renewable Energy Platform, Murra Warra Wind Farm, Superior Pipeline Company and Techem AG.

The Fund's commitment level increased from 48.3% to 55.6% over the quarter to 30 September 2018.

Capital Calls and Distributions

10 July

- The Fund issued its 16th capital call, drawing down an additional c. 7.9% (€85m).
- Total drawn down following this call was c. 28.4%.

26 October

- The Fund issued its 17th capital call, drawing down an additional c. 2.3% (€25m).
- Total drawn down following this call was c. 30.7%.

Pipeline

Partners Group currently has two opportunities in its near-term investment pipeline:

- A European air cargo logistics provider and a North American support infrastructure in the natural gas value chain.

Investments Held

The table below shows a list of the investments held by the Partners Group Direct Infrastructure Fund as at 30 September 2018.

Investment	Description	Type	Sector	Country	Commitment Date
Fermaca	Gas infrastructure operator based in Mexico.	Lead	Energy	Mexico	July 2015
Silicon Ranch	Solar platform based in US	Lead	Solar Power	USA	April 2016
Axia NetMedie	Internet and data network provider based in Canada and France	Lead	Communication	Canada & France	July 2016
Merkur Offshore	Wind farm based in German North Sea.	Lead	Wind Power	Germany	August 2016
Green Island Renewable Solar Platform	Solar power platform in Taiwan.	Lead	Solar Power	Taiwan	September 2016
High Capacity Metro Trains PPP	Delivery and maintenance of rolling stock for Australian State government.	Co-lead	Transportation	Australia	November 2016
USIC	Utility location services	Lead	Utilities	USA	August 2017
Arcanum Infrastructure	Develops and acquires infrastructure assets to supply strategic materials	Lead	Chemical Infrastructure	North America	tbc
Borssele III/IV	Wind farm based in Netherlands	Lead	Wind Power	Netherlands	tbc
Grassroots Renewable Energy Platform*	Wind/solar/energy storage platform	Lead	Renewable Energy	Australia	tbc
Murra Warra Wind Farm*	Onshore windfarm	Lead	Renewable Energy	Australia	tbc
Superior Pipeline Company*	LNG pipeline platform	Co-lead	Energy Infrastructure	North America	tbc
Techem AG*	Energy metering services provider	Lead	Infrastructure Services	Germany	tbc

*Committed in Q3 2018.

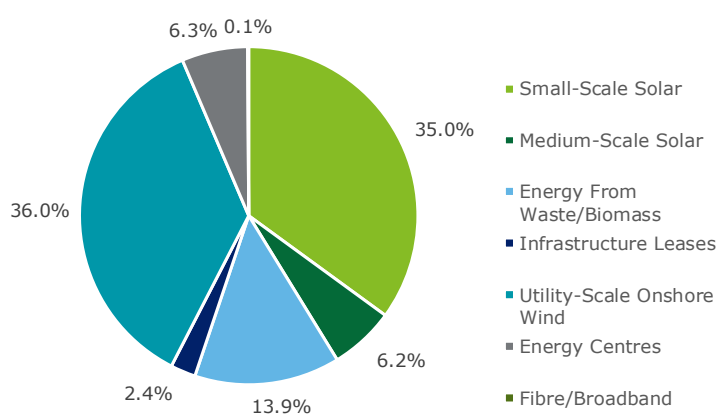
13 Aviva Investors – Infrastructure Income

Aviva Investors was appointed to manage an infrastructure income mandate with the aim of outperforming the 3 month Sterling LIBOR benchmark by 6% p.a. The manager has an annual management fee and performance fee.

13.1 Infrastructure Income - Investment Performance to 30 June 2018

Sector Breakdown

The chart below shows the split of the portfolio by sector.



Source: Aviva Investors.

Small-scale solar and utility-scale onshore wind make up c. 70% of the portfolio.

Holdings

The top 10 holdings in the Infrastructure Income Fund account for c. 60.2% of the Fund and are detailed below.

Top 10 holdings as at 30 June 2018	Asset	Proportion of Fund
Brockloch Rig Wind Farm	Utility-scale Onshore Wind	10.6%
Minnycap Energy	Utility-scale Onshore Wind	6.6%
Turncole Wind Farm	Utility-scale Onshore Wind	6.4%
Aviva Investors Energy Centres No. 1	Energy Centres	6.3%
EES Operations 1	Small-scale Solar PV	6.1%
HomeSun	Small-scale Solar PV	6.0%
Biomass UK No. 2	Biomass	4.9%
Biomass UK No. 1	Biomass	4.8%
Jacks Lane	Utility-scale Onshore Wind	4.4%
Biomass UK No. 3	Biomass	4.3%
Total		60.2%

Note: The numbers in this table may not sum due to rounding.

Source: Aviva Investors.

Pipeline

Aviva currently has a "priority pipeline", representing transactions which the Fund has exclusivity, are in due diligence or are strongly positioned due to Aviva's leading position in the relevant sector or relationship with the opportunity partner. As at 30 June 2018, the priority pipeline opportunities total c. £462.9m and expect to reach a close within 12 months. This pipeline is constructed of c. 54% energy from waste/biomass assets, c. 28% infrastructure leases and c. 12% fibre/broadband assets.

Over the quarter to 30 September 2018, the Fund provided a c. £55m funding facility to Truespeed, a provider of rural fibre broadband networks. The investment is the second tranche of finance to the project alongside another Aviva Investors' mandate. The funding finances the construction of new networks.

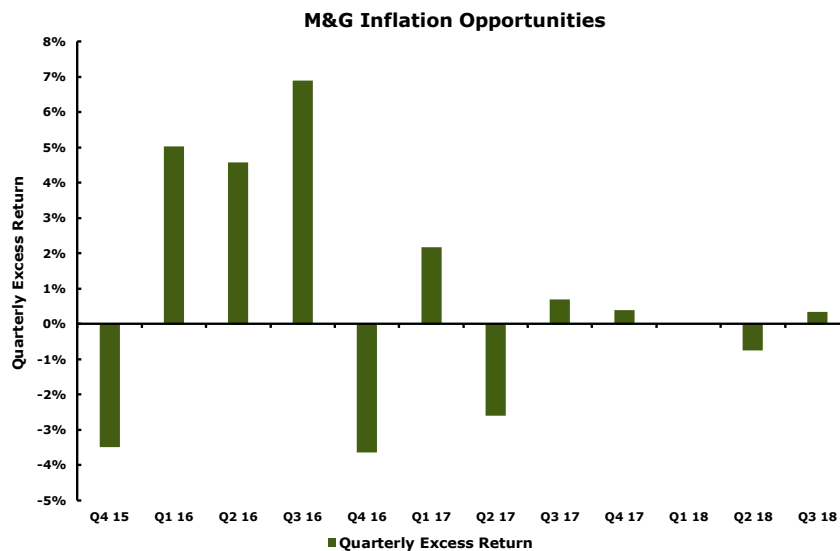
14 M&G – Inflation Opportunities

M&G was appointed to manage an inflation opportunities mandate with the aim of outperforming the RPI benchmark by 2.5% p.a. The manager has an annual management fee which is calculated based on the underlying assets

14.1 M&G Inflation Opportunities - Investment Performance to 30 September 2018

	Last Quarter (%)	One Year (%)	Two Years (% p.a.)	Three Years (% p.a.)
M&G Inflation Opportunities – Gross of fees	1.9	6.1	4.5	9.1
Net of fees ⁽¹⁾	1.9	5.7	4.2	8.7
Benchmark / Target	1.5	5.8	6.1	5.5
Net Performance relative to Benchmark	0.3	0.0	-1.8	3.2

Source: Northern Trust. Relative performance may not tie due to rounding.



Over the third quarter of 2018 the Fund returned 1.9% net of fees, outperforming the performance target by 0.3%. The Fund has performed in line with benchmark over the longer 12 month period to 30 September 2018, delivering a return of 5.7% net of fees

The Fund has again reduced its exposure to index-linked gilts over the quarter, with exposure now standing at c. 32%. Long lease property is now the largest component of the portfolio with exposure increasing to c. 34%, income strips increasing to c. 23% and ground rents exposure increasing slightly to c. 10%.

15 Aberdeen Standard Investments – Long Lease Property

Aberdeen Standard Investments was appointed to manage a long lease property mandate with the aim of outperforming the FT British Government All Stocks Index benchmark by 2.0% p.a. The manager has an annual management fee.

15.1 Long Lease Property - Investment Performance to 30 September 2018

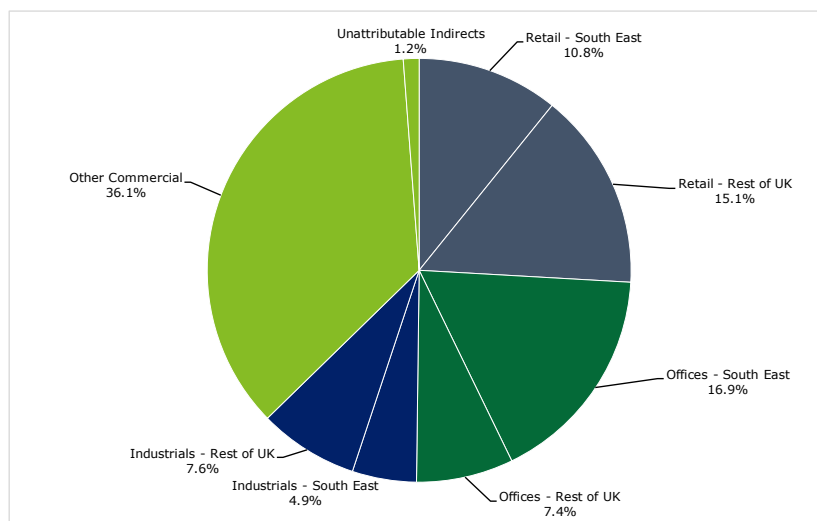
	Last Quarter (%)	One Year (%)	Two Years (% p.a.)	Three Years (% p.a.)
ASI Long Lease Property – Gross of fees	1.9	8.8	9.7	8.1
<i>Net of fees⁽¹⁾</i>	1.8	8.3	9.2	7.5
Benchmark / Target	-1.2	2.6	0.5	5.0
Net Performance relative to Benchmark	3.0	5.7	8.7	2.5

Source: Northern Trust. Relative performance may not tie due to rounding.

The ASI Long Lease Property Fund outperformed its FTSE Gilt All Stocks Index + 2% benchmark by 3.0%, returning 1.8% on a net of fees basis over the third quarter of 2018.

15.2 Portfolio Holdings

The sector allocation in the Long Lease Property Fund as at 30 September 2018 is shown in the graph below.



The Fund's holdings in the office sector has increased slightly from 22.9% as at 30 June 2018 to 24.3% as at 30 September 2018.

Throughout the third quarter, the Fund's industrial weight decreased from 12.9% to 12.5%, while the "other" weighting has increased slightly from 37.2% to 37.3%.

The table below shows details of the top ten tenants in the Fund measured by percentage of net rental income:

Tenant	Total Rent £m p.a.	% Net Income
Tesco	8.2	8.4
Whitbread	6.4	6.6
Sainsbury's	5.0	5.1
Marston's	4.9	5.1
Asda	4.4	4.5
QVC	4.0	4.1
Salford University	4.0	4.1
Save The Children	3.8	3.9
Park Holidays UK Limited	3.6	3.7
Steinhoff	3.6	3.7
Total	48.1	49.2 *

*Total may not equal sum of values due to rounding

The top 10 tenants contribute 49.2% of the total net income into the Fund. Supermarkets continue to make up a significant part of the fund with Tesco, Sainsbury's and Asda contributing 18.0% to the Fund's total net rental income as at 30 September 2018.

The Fund's average unexpired lease term increased over the quarter from 26.5 years to 26.7 years.

The proportion of the Fund's income with fixed, CPI or RPI rental increases increased from 93.7% to 94.0% over the quarter.

15.3 Sales and Purchases

Over the third quarter of 2018:

- The Fund finalised the sale and leaseback of an office asset in Bristol for £51.9m, representing a net initial yield of 4.5%. This 85,000 sq. ft. Grade A office was let to Imperial Brands on a 20 year lease. The lease has five-yearly, upward-only reviews and is CPI-linked with a cap and collar of 4% and 0% p.a. respectively.
- The Fund also purchased a further three holiday parks in Suffolk and Kent operated by Park Holidays UK Limited for £21.8m, reflecting a net initial yield of 3.1%. This was an off-market transaction given ASI's previous relationship with the company, acquiring another portfolio in 2017. The transaction was structured on a ground rent basis with a lease term of 99 years and annual rent set at 12% of the underlying earnings for each park.

Appendix 1 – Fund and Manager Benchmarks

The tables in this Appendix detail the benchmarks and outperformance targets, for the Total Fund and each individual manager.

Total Fund

Inception: 31 December 1999.

Manager	Asset Class	Allocation	Benchmark	Inception Date
Majedie	UK Equity	15.0%	FTSE All-Share Index +2% p.a. over three year rolling periods	31/08/05
LGIM	Global Equity	30.0%	FTSE All World Index	30/11/15
Ruffer	Dynamic Asset Allocation	10.0%	3 Month Sterling LIBOR +4% p.a.	31/07/08
Insight	Bonds Plus	10.0%	3 Month Sterling LIBOR +2% p.a.	30/09/15
Invesco	Private Equity	0.0%	n/a	30/09/09
Unigestion	Private Equity	0.0%	n/a	30/09/09
Partners Group	Multi Asset Credit	5.0%	3 Month Sterling LIBOR +4% p.a.	28/01/15
Oak Hill Advisors	Multi Asset Credit	7.5%	3 Month Sterling LIBOR +4% p.a.	01/05/15
Partners Group	Infrastructure Fund	5.0%	3 Month Sterling LIBOR +8% p.a.	31/08/2015
Aviva Investors	Infrastructure Income Fund	2.5%	FT British Government Index-Linked All Stocks Index +2.0%	23/05/2018
M&G	Inflation Opportunities	10.0%	RPI +2.5%	01/05/15
Aberdeen Standard Investments	Long Lease Property	5.0%	FT British Government All Stocks Index +2.0%	09/04/15
	Total	100.0%		

Note, for the benchmark performance calculation, we assume a 10% allocation to Partners Group MAC and Oak Hill Advisors MAC, and 0% allocation to Partners Group Infrastructure. This will be re-weighted as the Infrastructure Fund is drawn down.

Appendix 2 – Manager Ratings

Based on our manager research process, we assign ratings to the investment managers for specific products or services. The ratings are based on a combination of quantitative and qualitative factors, where the inputs for the qualitative factors come from a series of focused meetings with the investment managers. The ratings reflect our expectations of the future performance of the particular product or service, based on an assessment of:

- The manager’s business management;
- The sources of ideas that go to form the portfolio (“alpha generation”);
- The process for including the ideas into the portfolio (“alpha harnessing”); and
- How the performance is delivered to the clients.

On the basis of the research and analysis, managers are rated from 1 (most positive) to 4 (most negative), where managers rated 1 are considered most likely to deliver outperformance, net of fees, on a reasonably consistent basis. Managers rated 1 will typically form the basis of any manager selection short-lists.

Where there are developments with an investment manager that cause an element of uncertainty we will make the rating provisional for a short period of time, while we carry out further assessment of the situation.

Appendix 3 – Risk warnings & Disclosures

- Past performance is not necessarily a guide to the future.
- The value of investments may fall as well as rise and you may not get back the amount invested.
- Income from investments may fluctuate in value.
- Where charges are deducted from capital, the capital may be eroded or future growth constrained.
- Investors should be aware that changing investment strategy will incur some costs.
- Any recommendation in this report should not be viewed as a guarantee regarding the future performance of the products or strategy.

Our advice will be specific to your current circumstances and intentions and therefore will not be suitable for use at any other time, in different circumstances or to achieve other aims or for the use of others. Accordingly, you should only use the advice for the intended purpose.

Our advice must not be copied or recited to any other person than you and no other person is entitled to rely on our advice for any purpose. We do not owe or accept any responsibility, liability or duty towards any person other than you.

Deloitte Total Reward and Benefits Limited is authorised and regulated by the Financial Conduct Authority.



Other than as stated below, this document is confidential and prepared solely for your information and that of other beneficiaries of our advice listed in our engagement letter. Therefore you should not refer to or use our name or this document for any other purpose, disclose them or refer to them in any prospectus or other document, or make them available or communicate them to any other party. If this document contains details of an arrangement that could result in a tax or National Insurance saving, no such conditions of confidentiality apply to the details of that arrangement (for example, for the purpose of discussion with tax authorities). In any event, no other party is entitled to rely on our document for any purpose whatsoever and thus we accept no liability to any other party who is shown or gains access to this document.

© 2018 Deloitte Total Reward and Benefits Limited. All rights reserved.

Deloitte Total Reward and Benefits Limited. Registered office: Hill House, 1 Little New Street, London EC4A 3TR, United Kingdom. Registered in England and Wales No 3981512.

Deloitte Total Reward and Benefits Limited is a subsidiary of Deloitte LLP, the United Kingdom member firm of Deloitte Touche Tohmatsu Limited ("DTTL"), a UK private company limited by guarantee, whose member firms are legally separate and independent entities. Please see www.deloitte.co.uk/about for a detailed description of the legal structure of DTTL and its member firms.

Deloitte Total Reward and Benefits Limited is authorised and regulated by the Financial Conduct Authority.