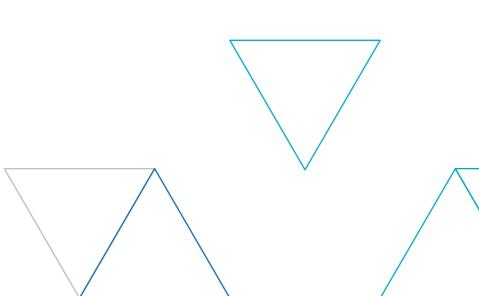
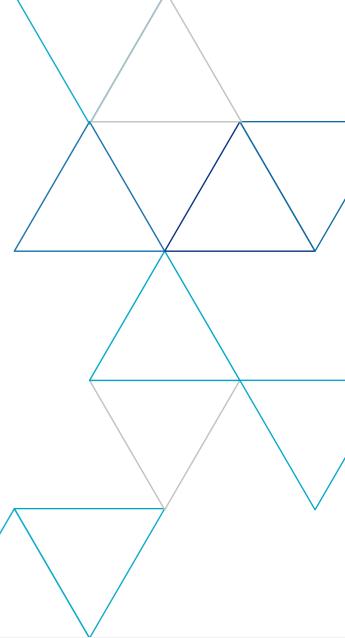
#### AVON PENSION FUND

ANNUAL INVESTMENT REVIEW TO 31 MARCH 2018

**JUNE 2018** 





#### IMPORTANT NOTICES

References to Mercer shall be construed to include Mercer LLC and/or its associated companies. © 2018 Mercer LLC. All rights reserved.

This contains confidential and proprietary information of Mercer and is intended for the exclusive use of the parties to whom it was provided by Mercer. Its content may not be modified, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's prior written permission.

The findings, ratings and/or opinions expressed herein are the intellectual property of Mercer and are subject to change without notice. They are not intended to convey any guarantees as to the future performance of the investment products, asset classes or capital markets discussed. Past performance does not guarantee future results. Mercer's ratings do not constitute individualised investment advice.

Information contained herein has been obtained from a range of third party sources. While the information is believed to be reliable, Mercer has not sought to verify it independently. As such, Mercer makes no representations or warranties as to the accuracy of the information presented and takes no responsibility or liability (including for indirect, consequential or incidental damages), for any error, omission or inaccuracy in the data supplied by any third party.

This does not contain regulated investment advice in respect of actions you should take. No investment decision should be made based on this information without obtaining prior specific, professional advice relating to your own circumstances.

This does not constitute an offer or a solicitation of an offer to buy or sell securities, commodities and/or any other financial instruments or products or constitute a solicitation on behalf of any of the investment managers, their affiliates, products or strategies that Mercer may evaluate or recommend.

For the most recent approved ratings of an investment strategy, and a fuller explanation of their meanings, contact your Mercer representative.

For Mercer's conflict of interest disclosures, contact your Mercer representative or see <a href="https://www.mercer.com/conflictsofinterest">www.mercer.com/conflictsofinterest</a>.

Mercer's universes are intended to provide collective samples of strategies that best allow for robust peer group comparisons over a chosen timeframe. Mercer does not assert that the peer groups are wholly representative of and applicable to all strategies available to investors.

#### Please also note:

- The value of investments can go down as well as up and you may not get back the amount you have invested. In addition investments denominated in a foreign currency will fluctuate with the value of the currency.
- The valuation of investments in property based portfolios, including forestry, is generally a matter of a valuer's opinion, rather than fact.
- When there is no (or limited) recognised or secondary market, for example, but not limited to property, hedge funds, private equity, infrastructure, forestry, swap and other derivative based funds or portfolios it may be difficult for you to obtain reliable information about the value of the investments or deal in the investments.
- Where the investment is via a fund of funds the investment manager typically has to rely on the underlying managers for valuations of the interests in their funds.
- Care should be taken when comparing private equity / infrastructure performance (which is generally a money-weighted performance) with quoted investment performance
  (which is generally a time-weighted performance). Direct comparisons are not always possible.

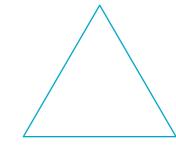
© MERCER 2018

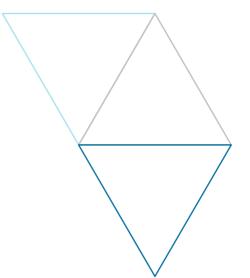
#### CONTENTS

Executive Summary	3
<ul> <li>Consideration of Funding Level</li> </ul>	7
Fund Valuations	11
Market Background	16
Performance Summary	19
• Appendices	27

© MERCER 2018

# SECTION 1 EXECUTIVE SUMMARY



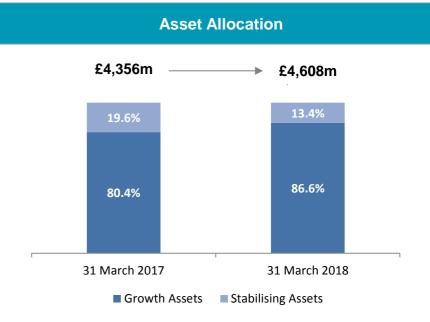


#### **EXECUTIVE SUMMARY**

	3 months (%)	1 year (%)	3 years (% p.a.)	
Total Fund (inc currency hedge)	-0.8	4.7	6.3	
Total Fund (ex currency hedge)	-1.3	3.0	7.3	
Strategic Benchmark (no currency hedge)	-1.5	3.7	7.3	
Relative (inc currency hedge)	+0.7	+1.0	-1.0	

#### **Excess Return Chart**





#### Commentary

Over the year total Fund assets (including currency hedging) increased from £4,356m (31 March 2017) to £4,608m.

This increase was primarily due to solid performance from emerging markets equities, property and infrastructure.

At a strategic level, the Fund was within the tolerance ranges in the Statement of Investment Principles for all asset classes at the end of the year.

The underperformance of the Fund relative to the unhedged Strategic Benchmark over the last year was a result of underperformance of some of the Fund's mandates, in particular Pyrford and Unigestion.

When the currency hedge with Record is included, the Fund outperformed its Strategic Benchmark over the one-year period but underperformed over the three year period.

#### **EXECUTIVE SUMMARY**

This report has been prepared for the Committee of the Avon Pension Fund ("the Fund"), to assess the performance and risks of the investment managers of the Fund.

#### **Funding level**

• The estimated funding level increased by c.1% over the year, from 95% to 96%, due to the positive return on the Fund's assets (along with positive contributions into the Fund) exceeding the increase in the present value of the liabilities over the year.

#### **Fund Performance**

The value of the Fund's assets increased by £252m over the year, to £4,608m as at 31 March 2018. This increase was primarily due
to solid performance from emerging markets equities, property and infrastructure.

#### Strategy

- Global (developed) equity returns over the last three years were 10.9% p.a., above the assumed strategic return of 8.05% p.a. from the review in April 2017. We remain broadly neutral in our medium-term outlook for developed market equities (over the next one to three years). Investor sentiment continues to be supported by solid economic growth and continued strong corporate earnings growth expectations although valuations remain stretched.
- Emerging market equities have returned 10.4% p.a. over the three-year period. It is above the assumed return of 8.70% p.a. as returns have been reasonably strong and fundamentals have improved. Compared to developed market equities, we are slightly more positive in our medium-term outlook for emerging market equities over the next one to three years as they continue to gather momentum on the back of broadly strong economic fundamentals, an expanding global economy, a weaker Dollar, rising commodity prices and strong earnings growth.
- UK government bond returns over the three-year period remain materially higher than the long-term assumed strategic returns as investor demand for gilts remains high. Fixed interest gilts returned 6.1% p.a. versus an assumed return of 1.90% p.a. and indexlinked gilts returned 7.8% p.a. versus an assumed return of 2.15% p.a. Gilt yields remained broadly steady over the quarter, and as a result gilt returns were muted
- UK corporate bonds returned 3.3% p.a. over the three-year period against an assumed strategic return of 3.25% p.a.
- The three-year UK property return of 8.9% p.a. remains substantially above the assumed return of 5.75% p.a.
- Hedge fund returns remain below long-term averages and the strategic return of 5.10% p.a., having been affected by low cash rates.
   Active managers in general have struggled to generate meaningful returns in recent times.

#### **EXECUTIVE SUMMARY**

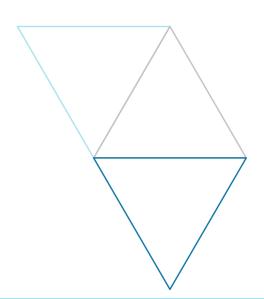
#### **Managers**

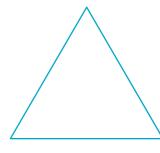
- Absolute returns over the year to 31 March 2018 were strong. All mandates (except Jupiter and Pyrford) delivered positive absolute return, with the Genesis and Schroder Property mandates leading the way. In terms of relative performance, out of the active equity managers, TT and Schroders outperformed their benchmarks over the year. Of those underperforming, the emerging markets equity mandate with Unigestion and the Jupiter UK Equity strategy delivered the most significant underperformance. Pyrford's defensive positioning, with its large bond allocation, has detracted from performance, resulting in underperformance versus its RPI +5% p.a. benchmark. Unigestion's underperformance has been driven by its respective style bias, since it has a 'low market beta' tilt and low volatility stocks have underperformed the wider market over the past year.
- Over the three-year period all mandates (except Aberdeen Standard) with a three-year track record produced positive absolute returns. A number of active funds underperformed their benchmarks over the period: Jupiter, Genesis, Unigestion, Pyrford, Aberdeen Standard, Schroder Property and Partners (see comments on the measurement of Partners' performance later). TT and Schroder Global Equity did not achieve their performance objectives, but did outperform their respective benchmarks, net of fees.
- Broadly speaking, the Fund's active equity managers have a tilt towards quality and low volatility style factors, along with limited
  exposure to value. Over the last year, value and low volatility stocks have underperformed the wider market whereas growth and
  quality stocks have outperformed the wider market. This has led to TT and Schroders, which both have quality and growth tilts,
  outperforming their respective benchmarks.

#### **Key Points for Consideration**

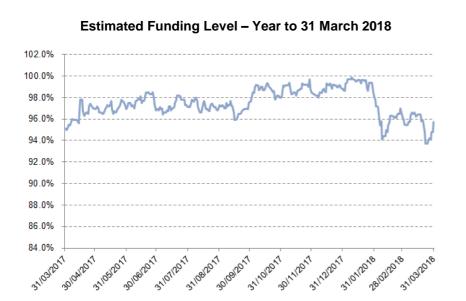
- A number of changes to the Fund's investment strategy were implemented during the year to 31 March 2018, primarily aimed at risk reduction. These included the implementation of a Liability Driven Investment ("LDI") strategy and a reduction in the physical allocation to equities, with assets switched into a new Diversified Growth Fund (with Ruffer) and a Multi-Asset Credit fund (with Loomis Sayles) in Q3 2017. An equity protection strategy using options was then implemented with BlackRock in Q4 2017.
- The Royal London corporate bond mandate was also switched to Multi-Asset Credit with Loomis Sayles in Q3 2017, in order to increase return potential on those assets, given the low yields currently available on investment grade credit.
- The BlackRock passive regional equity mandate was transferred to a passive global low carbon equity fund in Q4 2017.
- The global equity mandate with Invesco was also transferred to BlackRock at the end of Q1 2018, for collateral adequacy management purposes within the QIF structure used for the LDI and equity option strategy.

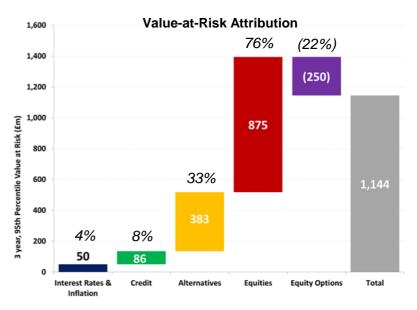
# SECTION 2 CONSIDERATION OF FUNDING LEVEL





## CONSIDERATION OF FUNDING LEVEL YEAR TO 31 MARCH 2018





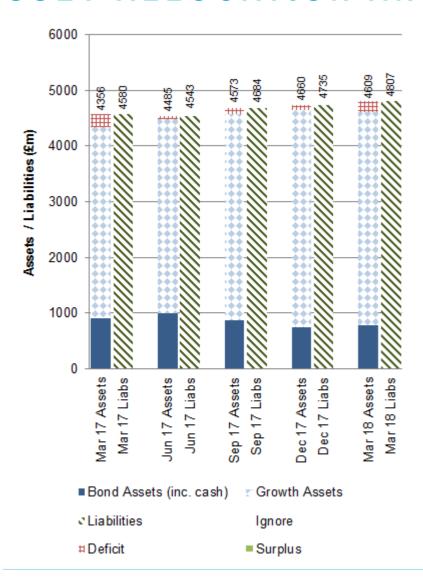
The charts above illustrate the estimated progression of the funding level (on the 2016 actuarial valuation basis) over the year to 31 March 2018 on the left hand side, and the main risks the Fund is exposed to on the right side (again on the 2016 valuation basis), including the size of these risks in the context of the deficit position. The purpose of showing this chart is to provide an awareness of the risks faced and how they change over time, and to initiate debate on an ongoing basis around how to best manage these risks.

The grey column on the right hand side of this chart shows the estimated 95<sup>th</sup> percentile (1-in-20) Value-at-Risk figure relative to our 'best estimate' of what the deficit would be in three years time. As at 31 March 2018, the chart shows that if a 1-in-20 downside event occurred, we would expect that in three years time, the deficit would worsen by at least an additional £1,144m on top of the expected deficit at that time. This compares to an equivalent figure of £1,404m as at 31 March 2017, showing that a significant downside risk reduction has been achieved as a result of the strategy changes made.

Each bar to the left of the grey bar represents the contribution to this total risk from the primary underlying risk exposures (interest rates and inflation, changes in credit spreads, and volatility of equity markets and alternative assets). It should be noted that while these figures indicate levels of volatility on the downside, there is also a potential upside benefit from taking these risks. Equity risk continues to be the largest driver of volatility (net 54% including options), but to a lesser degree than last year due to the reduction in equity allocation and implementation of the option strategy.

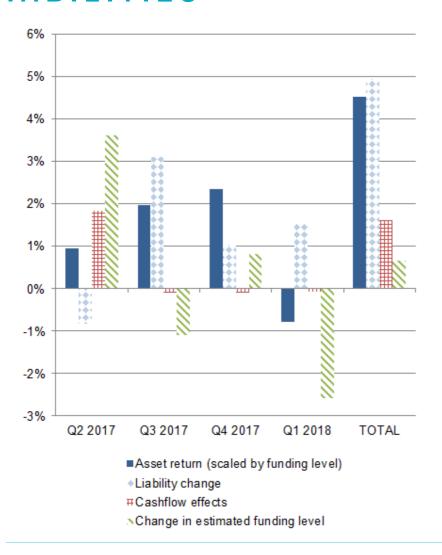
The VaR figures shown are based on approximate liability data rather than actual Fund cashflows, and are based on the strategic asset allocation. They are therefore illustrative only and should not be used as a basis for taking any strategic decisions.

## CONSIDERATION OF FUNDING LEVEL ASSET ALLOCATION AND FUNDING LEVEL



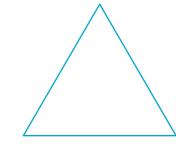
- Based on financial markets, investment returns and cashflows into the Fund, the estimated funding level increased by c.1% over the year, all else being equal, from 95% to 96%. This was driven by the positive return on assets (along with positive contributions into the Fund) outweighing an increase in the present value of the liabilities.
- This is calculated using the new actuarial valuation as at 31 March 2016 and the "CPI plus" discount basis.

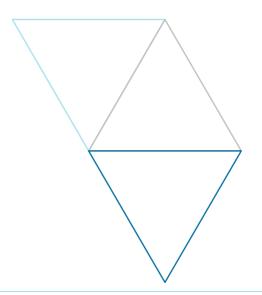
# CONSIDERATION OF FUNDING LEVEL FUND PERFORMANCE RELATIVE TO ESTIMATED LIABILITIES



- Over the 12 month period, the funding level increased from 95% to 96% due to the positive return on the Fund's assets (along with positive contributions into the Fund) outweighing an increase in the present value of the liabilities over the year.
- The Fund's assets returned 4.7% over the year, and, when allowing for the funding position, the funding level increased by c.1%.

# SECTION 3 FUND VALUATIONS





#### FUND VALUATIONS VALUATION BY ASSET CLASS

Asset Allocation										
Asset Class	31/03/2017 (£'000)	31/03/2018 (£'000)	31/03/2017 (%)	31/03/2018 (%)	Target Strategic Benchmark (%)			nges (%)		Difference (%)
Developed Market Equities	1,776,492	1,588,536	40.8	34.5	34.0	29	9	-	39	+0.5
Emerging Market Equities	419,761	221,708	9.6	4.8	6.0	;	3	-	9	-1.2
Diversified Growth Funds	375,391	602,104	8.6	13.1	15.0	10	ე ე	-	20	-2.0
Fund of Hedge Funds	228,648	211,766	5.2	4.6	5.0	(	0	-	7.5	-0.4
Property	380,488	426,039	8.7	9.3	10.0	ţ	5	-	15	-0.7
Infrastructure	256,003	283,594	5.9	6.2	5.0	(	0	-	7.5	+1.2
Multi-Asset Credit	-	482,296	-	10.5	11.0	(	6	-	16	-0.5
Corporate Bonds	341,367	82,124	7.8	1.8	2.0		No	set ra	ange	-0.2
LDI*	511,290	536,222	11.7	11.6	12.0		No	set ra	ange	-0.4
Cash (including currency instruments)	66,870	174,159	1.5	3.8	-	(	0	-	5	+3.8
Total	4,356,309	4,608,307	100.0	100.0	100.0					0.0

Source: Avon, Investment Managers and Mercer. Totals may not sum due to rounding. Green numbers indicate the allocation is within tolerance ranges, whilst red numbers indicate the allocation is outside of tolerance ranges.

\* Valuation includes mark-to-market value of equity protection strategy.

Invested assets increased over the year by £253m. This increase was primarily due to solid performance from emerging markets equities, property and infrastructure. At the end of the year, all asset classes were within the agreed tolerance ranges.

© MERCER 2018 12

## FUND VALUATIONS VALUATION BY MANAGER

Manager Allocation					
Manager	Asset Class	31/03/2017 (£'000)	31/03/2018 (£'000)	31/03/2017 (%)	31/03/2018 (%)
BlackRock	Equities	469,258	853,002	10.8	18.5
BlackRock	Corporate Bonds	80,486	82,124	1.8	1.8
BlackRock	LDI*	511,290	536,222	11.7	11.6
Jupiter	UK Equities	199,776	196,870	4.6	4.3
TT International	UK Equities	236,627	184,557	5.4	4.0
Schroder	Global Equities	337,292	353,866	7.7	7.7
Genesis	Emerging Market Equities	196,601	113,788	4.5	2.5
Unigestion	Emerging Market Equities	223,160	107,920	5.1	2.3
Invesco	Global ex-UK Equities	388,073	-	8.9	-
SSgA	Europe ex-UK & Pacific inc. Japan Equities	160,461	-	3.7	-
Pyrford	DGF	138,487	135,269	3.2	2.9
Aberdeen Standard	DGF	236,903	240,709	5.4	5.2
Ruffer	DGF	-	226,126	-	4.9

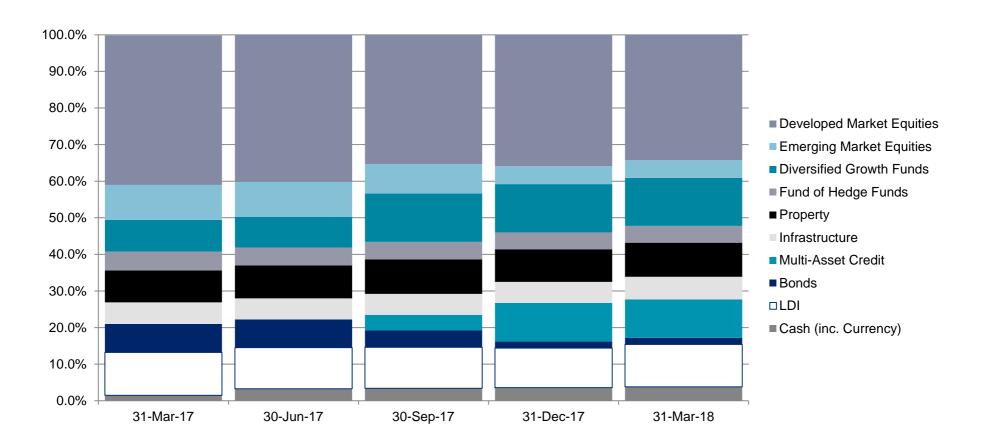
## FUND VALUATIONS VALUATION BY MANAGER

Manager Allocation					
Manager	Asset Class	31/03/2017 (£'000)	31/03/2018 (£'000)	31/03/2017 (%)	31/03/2018 (%)
MAN	Fund of Hedge Funds	393	-	0.0	0.0
Signet	Fund of Hedge Funds	1,162	1,633	0.0	0.0
Gottex	Fund of Hedge Funds	971	-	0.0	-
JP Morgan	Fund of Hedge Funds	226,123	210,133	5.2	4.6
Schroder	UK Property	201,636	224,719	4.6	4.9
Partners	Property	192,361	201,320	4.4	4.4
IFM	Infrastructure	256,003	283,594	5.9	6.2
Loomis Sayles	Multi-Asset Credit	-	482,296	-	10.5
RLAM	Bonds	260,812	-	6.0	-
Record Currency Management	Currency Hedging	10,323	86,436	0.2	1.9
Internal Cash	Cash	28,112	87,723	0.6	1.9
Total		4,356,309	4,608,307	100.0	100.0

Source: Avon, Investment Managers and Mercer. Totals may not sum due to rounding.

© MERCER 2018

#### COMMENTARY ON CHANGE IN ASSET ALLOCATION OVER THE YEAR

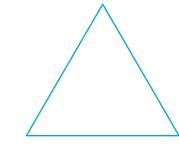


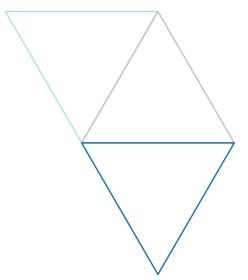
Over the year, the Fund terminated its equities portfolios with SSgA (September 2017) and Invesco (March 2018), as well as the bonds mandate with RLAM (October 2017).

A DGF investment with Ruffer and a multi-asset credit mandate with Loomis Sayles were introduced in September 2017.

© MERCER 2018 15

# SECTION 4 MARKET BACKGROUND





## MARKET BACKGROUND INDEX PERFORMANCE OVER THE YEAR TO 31 MARCH 2018

#### **Equity Market Review**

Over the 12 month period to 31 March 2018, equities performed modestly against a backdrop of broad economic expansion. Absolute returns over 2017 were strong, however, over the first quarter of 2018, equity markets experienced a downturn. This shift in market sentiment was largely a reaction to a combination of escalating trade and geo-political tensions along with expectations of monetary tightening, especially in the US. Even though economic activity and business, as well as consumer confidence, improved significantly over the year, concerns have started to surface that some economies, most notably the US, might be starting to overheat which would accelerate the tightening cycle by central banks. Over the 12 months to 31 March 2018, global equities as measured by the FTSE All World returned 2.9% in sterling terms and 11.7% in local currency terms (as sterling appreciated).

At a regional level, UK stocks returned 1.2%. European markets returned 4.3%, US stocks returned 1.8%, while the FTSE Japan Index returned 7.5%, all in sterling terms. The emerging markets equities were top performers, returning 8.8% in sterling terms. The region has benefited from a declining US dollar and improved corporate earnings; however considerable dispersion in the returns of emerging market economies persists.

#### **Bond Market Review**

UK Government Bonds, as measured by the FTSE Gilts All Stocks Index, returned 0.5%, while long dated issues as measured by the corresponding Over 15 Year Index returned 2.2% over the year. The yield for the FTSE Gilts All Stocks Index rose marginally over the year from 1.44% to 1.54%.

The FTSE Over 5 Year Index Linked Gilts Index returned 0.7%.

In a broad risk-on environment, credit spreads tightened over the year resulting in a total return of 1.3% for UK corporate bonds.

#### **Currency Market Review**

Over the 12 month period to 31 March 2018, sterling rose 12.2% against the US dollar from \$1.25 to \$1.40 and 7.1% against the yen from ¥139.34 to ¥149.19. Sterling depreciated against the euro by 2.4% from €1.17 to €1.14 over the same period.

#### **Commodity Market Review**

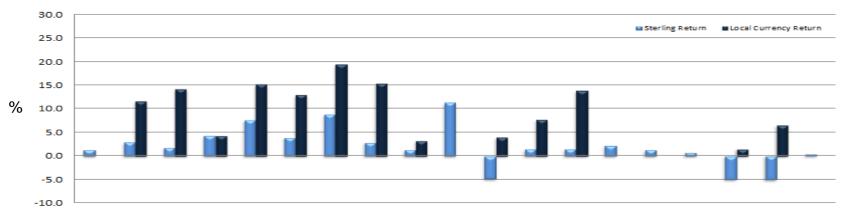
The price of Brent Crude increased 33.2% from \$52.62 to \$70.09 per barrel over the one year period. Over the same period, the price of Gold rose 6.1% from \$1247.25 per troy ounce to \$1323.43.

The S&P GSCI Commodity Spot Index returned 4.0% over the one year period to 31 March 2018 in sterling terms.

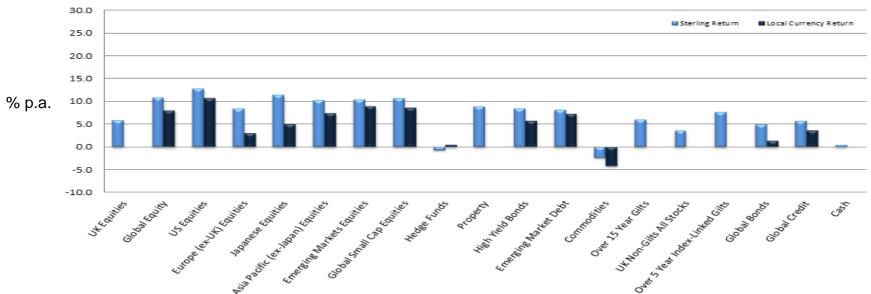
Source: Thomson Reuters Datastream.

## MARKET BACKGROUND INDEX PERFORMANCE

#### Return over the 12 months to 31 March 2018

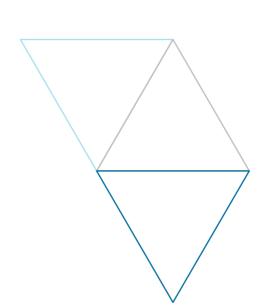


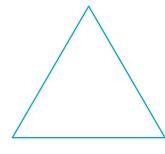
#### Return p.a. over the 3 years to 31 March 2018



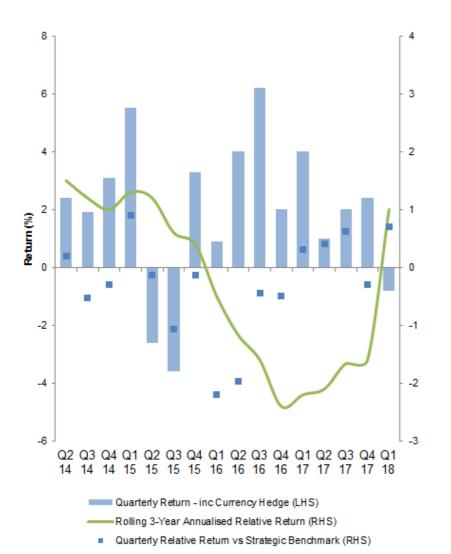
Source: Thomson Reuters Datastream.

# SECTION 5 PERFORMANCE SUMMARY





#### PERFORMANCE SUMMARY TOTAL FUND PERFORMANCE



	3 months (%)	1 year (%)	3 years (% p.a.)
Total Fund (inc currency hedge)	-0.8	4.7	6.3
Total Fund (ex currency hedge)	-1.3	3.0	7.3
Strategic Benchmark (no currency hedge)	-1.5	3.7	7.3
Relative (inc currency hedge)	+0.7	+1.0	-1.0

- Over the quarter, the Fund outperformed its Strategic Benchmark by 0.7% when including the currency hedge and by 0.2% when excluding the currency hedge.
- The underperformance of the Fund relative to the unhedged Strategic Benchmark over the last year was a result of underperformance of some of the Fund's mandates, in particular Pyrford and Unigestion.
- When the currency hedge with Record is included, the Fund outperformed its Strategic Benchmark over the one-year period but underperformed over the three years.

#### PERFORMANCE SUMMARY INDEX PERFORMANCE VS. STRATEGIC BENCHMARK

Asset Class		Strategic nmark	Index returns	Contribution to total benchmark	Index returns	Contribution to total benchmark	Assumed strategic return		
Asset Class	Start (%)	End (%)	1 year (%)	1 year (%)	3 years (% p.a.)	3 years (% p.a.)	Return (% p.a.)	Contribution* (% p.a.)	
UK Equities	15.0	10.0	1.2	0.3	5.9	1.0	8.05	-0.2	
Overseas Equities	25.0	24.0	1.9	0.5	11.1	2.9	8.05	0.9	
Emerging Market Equities	10.0	6.0	11.8	1.0	11.3	1.2	8.7	0.4	
Diversified Growth Funds	10.0	15.0	4.4	0.5	4.5	0.5	6.95	-0.3	
Fund of Hedge Funds	5.0	5.0	4.4	0.2	4.5	0.3	5.1	-0.1	
Property	10.0	10.0	10.0	1.0	8.1	0.8	5.75	0.1	
Infrastructure	5.0	5.0	-6.3	-0.3	9.7**	0.4	6.95	0.1	
Multi-Asset Credit	0.0	11.0	2.2**	0.2	2.2**	0.1	3.5	0.0	
Overseas Fixed Interest	0.0	0.0	-	-	9.8**	0.1	5.5***	0.0	
UK Corporate Bonds	8.0	2.0	1.3	0.1	3.6	0.3	3.25	-0.1	
UK Government Bonds	0.0	0.0	-	-	4.0**	0.0	4.5***	0.0	
LDI	12.0	12.0	0.7	0.1	7.8	0.9	2.15	0.6	
Total Fund	100.0	100.0		3.6		8.5	6.9	1.6	

Source: Mercer estimates. May not sum due to rounding.

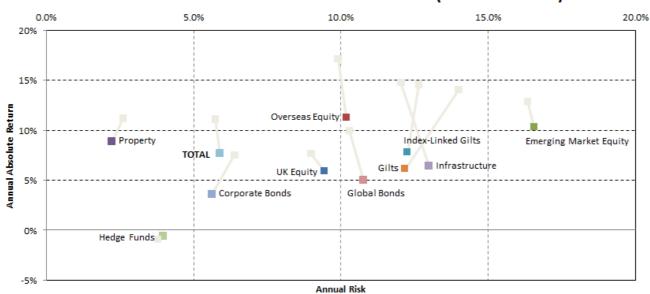
\* Contribution to total difference between strategic benchmark return over last three years (8.5% p.a.) and overall assumed strategic return (6.9% p.a.) – weighted by strategic benchmark.

\*\* Index return shown only for the period when there were investments held in this asset class.

\*\*\* Strategic return shown at the time of disinvestment from the asset class.

#### MANAGER MONITORING RISK RETURN ANALYSIS

#### 3 Year Risk v 3 Year Return to 31 March 2018 (31 March 2017)



This chart shows the 3 year absolute returns against three year volatility (based on monthly data in sterling terms), to the end of March 2018, for each of the broad underlying asset benchmarks (using the indices set out in the Appendix), along with the total Fund strategic benchmark (using the benchmark indices and allocations from BNY Mellon). We also show the positions as at 31 March 2017, in grey.

#### **Comments**

- The most significant shift in observed returns over the year was in infrastructure and gilts, whose 3 year returns have dropped nearly 10%.
- Overseas equities, index-linked gilts and global bonds saw their return decrease by 5% or more.
- Hedge funds was the only asset class whose return has not fallen over the year, though its 3 year absolute return is still negative.

### MANAGER MONITORING MANAGER PERFORMANCE TO 31 MARCH 2018

Manager / found		1 year (%)		;	3 year (% p.a	i.)	3 year outperformance	3 year performance
Manager / fund	Fund	B'mark	Relative	Fund	B'mark	Relative	target (% p.a.)	versus target
BlackRock Equities	2.1	2.1	0.0	8.9	8.9	0.0	-	N/A
BlackRock Corp Bonds	2.0	1.9	+0.1	5.3	5.2	+0.1	-	N/A
BlackRock LDI	0.1	0.1	0.0	6.4	6.4	0.0	-	N/A
Jupiter	-1.5	1.2	-2.7	3.9	5.9	-1.9	+2	Target not met
TT International	3.6	1.2	+2.4	7.9	5.9	+1.9	+3-4	Target not met
Schroder Equity	4.7	2.3	+2.3	11.3	10.6	+0.6	+4	Target not met
Genesis	10.2	11.7	-1.4	10.6	11.3	-0.6	-	Target not met
Unigestion	4.9	11.4	-5.8	6.9	10.9	-3.6	+2-4	Target not met
Invesco (terminated)	3.9	4.0	-0.1	11.4	11.4	0.0	+0.5	Target not met
Pyrford	-1.8	8.5	-9.4	3.3	7.8	-4.2	-	Target not met
Aberdeen Standard	1.0	5.5	-4.3	-0.8	5.6	-6.1	-	Target not met
Ruffer	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A
JP Morgan	4.3	4.2	+0.1	N/A	N/A	N/A	-	N/A
Schroder Property	10.2	10.1	+0.1	7.7	8.1	-0.4	+1	Target not met
Partners Property	6.0	10.0	-3.6	4.8	10.0	-4.8	-	Target not met
IFM	30.8	3.7	+26.2	23.2 *	3.6 *	+19.0 *	-	N/A
Loomis Sayles	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A
Internal Cash	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A

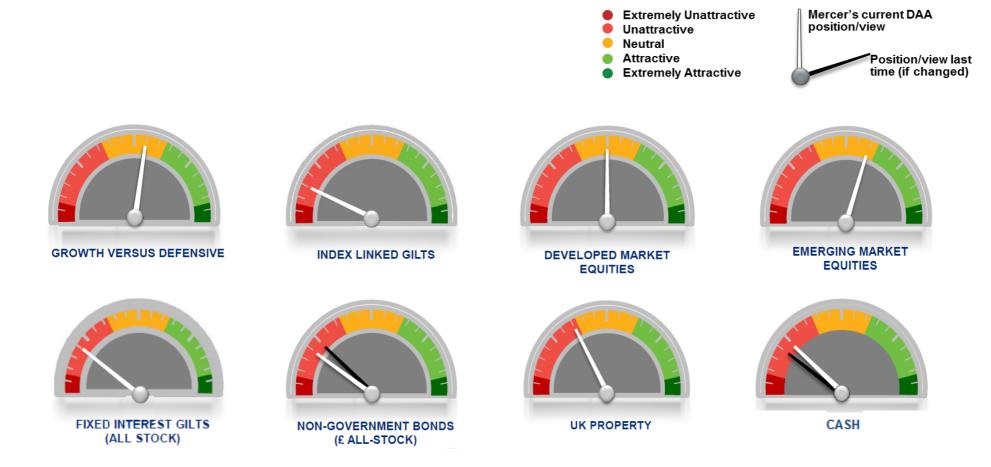
- Source: Avon, Investment Managers and Mercer estimates.
- Returns are in GBP terms, consistent with overall fund return calculations before currency hedging is applied, except for JP Morgan, Partners and IFM, whose performance is shown as IRR in local currency terms.
- In the relative performance columns, returns in blue text exceeded their respective benchmarks, those in red underperformed, and black text shows performance in line with benchmark.
- In the table above, and throughout this report, relative returns have been calculated geometrically (i.e. the portfolio return is divided by the benchmark return) rather than arithmetically (where the benchmark return is subtracted from the portfolio return).
- In the table above, Partners performance is measured against an IRR target of 10% p.a.
- A summary of the benchmarks for each of the mandates is given in Appendix 1.
- \* Performance is shown since inception.

## ACTIVE INVESTMENT MANAGER CONTRIBUTION YEAR TO 31 MARCH 2018

	Weight in Strategic Benchmark (ex LDI and Cash)		Average Relative	Fund	Index	Asset Allocation	Active Manager	Total Manager
Asset Cass	Start	End	Position	Return	Return	Impact	Impact	Impact
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
UK Equities	17.0	11.4	-0.4	0.9	1.2	-	-	-
Overseas Equities	28.4	27.3	2.8	3.2	1.9	-0.1	+0.3	+0.2
Emerging Market Equities	11.4	6.8	0.1	7.4	11.8	+0.1	-0.4	-0.3
Diversified Growth Funds	11.4	17.0	-1.6	0.2	4.4	-	-0.6	-0.6
Fund of Hedge Funds	5.7	5.7	-0.1	4.3	4.4	-	-	-
Property	11.4	11.4	-0.8	8.0	10.0	-	-0.2	-0.2
Infrastructure	5.7	5.7	1.1	30.8	3.4	-	+1.8	+1.8
Multi-Asset Credit	-	12.5	-1.5	-0.5	4.4	+0.1	-0.4	-0.3
UK Corporate Bonds	9.1	2.3	0.3	3.0	1.3	-	-	-
Total Fund	100.0	100.0		5.1	4.5	0.1	0.5	0.6

Source: Avon, Investment Managers and Mercer estimates. May not sum due to rounding. Average overweight position taken as the average of the beginning and end of year weights. LDI and cash allocations have been excluded form the analysis

## FORWARD LOOKING RETURN EXPECTATIONS 31 MARCH 2018

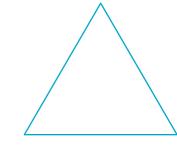


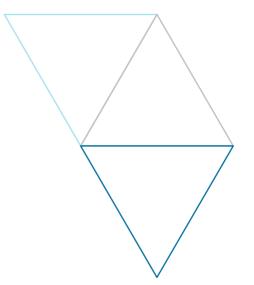
The charts above summarise Mercer's views on the medium term (1-3 years) outlook for returns from the key asset classes. These views are relevant for reflecting medium term market views in determining appropriate asset allocation. We do not expect the Fund to make frequent tactical changes to their asset allocation based upon these views.

## FORWARD LOOKING RETURN EXPECTATIONS CHANGES OVER THE LAST YEAR

Asset Class	Apr 2017	Jul 2017	Oct 2017	Jan 2018	Apr 2018
Fixed Interest Gilts	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
Index-Linked Gilts	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
Non-Government Bonds (£ All-Stocks)	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
Global Equities	Neutral	Neutral	Neutral	Neutral	Neutral
Emerging Market Equities	Neutral	Neutral	Neutral	Neutral	Neutral
Small Cap Equities	Neutral	Neutral	Neutral	Neutral	Neutral
Low Volatility Equities	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
UK Property	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
High Yield Bonds	Unattractive	Unattractive	Unattractive	Unattractive	Unattractive
Local Currency Emerging Market Debt	Neutral	Neutral	Neutral	Neutral	Neutral

# APPENDIX 1 MANAGER MONITORING





#### MANAGER MONITORING UK EQUITIES

		1 Y	ear (%)		3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance *	Fund	B'mark	Relative	Target	Contribution to outperformance *
Jupiter	-1.5	1.2	-2.7	-0.13	3.9	5.9	-1.9	+2	-0.10
TT International	3.6	1.2	+2.4	+0.11	7.9	5.9	+1.9	+3-4	+0.09

#### **Market Commentary**

UK equities rose over the year by 1.2%, lagging global markets which returned 2.9% in sterling terms, as Brexit uncertainty weighed down on UK stocks.

#### **Performance Commentary**

- Jupiter and TT had different performance records over the last year, with Jupiter's consistently below TT's.
- Jupiter has underperformed its benchmark over the one and three year periods. Tracking error was 4.7% p.a. Jupiter's holdings remain noticeably different from the benchmark, due in large part to its Socially Responsible Investment objectives – having a significant underweight to large cap stocks and overweight to midcap stocks.
- TT has outperformed its benchmark over last year and three year period periods but lagged its target over both periods. Tracking error was 3.6% p.a.

© MERCER 2018 28

Source: Avon, Investment Managers and Mercer estimates.

\* "Contribution to outperformance" is the annualised impact on total return of the individual managers' performance relative to their benchmark over the periods measured, and provides an indication of the relative impact of manager out- or under-performance.

#### MANAGER MONITORING DEVELOPED GLOBAL EQUITIES

		1 Y	ear (%)		3 Years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
Invesco (terminated)*	3.9	4.0	-0.1	-0.01	11.4	11.4	0.0	+0.5	0.00
SSgA Europe (terminated)*	7.4	8.9	-1.5	-0.02	10.3	9.7	+0.6	+0.5	+0.01
SSgA Pacific (terminated)*	0.6	1.6	-1.0	-0.02	9.4	9.2	+0.2	+0.5	0.00
Schroder	4.7	2.3	+2.3	+0.17	11.3	10.6	+0.6	+4	+0.02

Source: Avon, Investment Managers and Mercer estimates.

#### **Market Commentary**

• Global equities returned 2.9% over the year in sterling terms, with positive performance across all the major regions: US equities delivered a return of 1.8%, Europe 4.3% and Japan 7.5% (all in sterling terms).

#### **Performance Commentary**

- Schroders has outperformed its benchmark over last year and three year period periods but lagged its target over both periods. Tracking error was 2.4% p.a.
- The SSgA and Invesco mandates were terminated over the last year.
- BlackRock provides passive global equity exposure, with 18.5% of total Fund assets invested in their index funds.

<sup>\*</sup> Performance shown up to termination, e.g. for the last year performance is shown from 31 March 2017 to termination.

#### MANAGER MONITORING EMERGING MARKET EQUITIES

	1 Year (%)				3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
Genesis	10.2	11.7	-1.4	-0.05	10.6	11.3	-0.6	-	-0.03
Unigestion	4.9	11.4	-5.8	-0.30	6.9	10.9	-3.6	+2-4	-0.20

Source: Avon, Investment Managers and Mercer estimates.

#### **Market Commentary**

• The emerging markets equities were top performers, returning 8.8% in sterling terms. The region has benefited from a declining US dollar and improved corporate earnings; however considerable dispersion in the returns of emerging market economies persists.

#### **Performance Commentary**

- Genesis underperformed by 1.4% over the year, having lagged its benchmark over every quarter. The fund also underperformed over the three years, by 0.6% p.a. The largest regional weighting of the portfolio is in China (c. 18%).
- Unigestion underperformed by 5.8% over the year, having lagged its benchmark over every quarter. This is not unexpected due to their style. The fund also underperformed over the three years, by 3.6% p.a. The largest regional weighting of the portfolio is in South Korea (c. 19%).

#### MANAGER MONITORING FUND OF HEDGE FUNDS

	1 Year (%)				3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
JP Morgan	4.3	4.2	+0.1	+0.01	N/A	N/A	N/A	-	N/A

Source: Avon, Investment Managers and Mercer estimates. Returns are in local currency terms.

#### **Market Commentary** <sup>1</sup>

- Fund of Hedge Funds delivered positive returns over the year: the HFRI index rose 5.5%, the HFRX index returned 3.2% and the Dow Jones Credit Suisse Hedge Fund index returned 5.4%.
- Looking at specific sectors, relative value strategies produced positive returns with fixed income and convertible arbitrage strategies returning 5.9% and 3.6% over the year. Long/short equity strategies benefitted from significant dispersion between and within industries, styles and regions, returning 10.7%. Favorable dispersion characteristics and increased market volatility expanded the opportunity set for many trading-oriented equity strategies, benefitting market neutral strategies, which returned 7.0%. Event driven strategies improved, returning 3.3%, whilst the broad global macro universe also produced positive returns (of 2.5%).
- We continued to see dispersion in manager results across strategies.

#### **Performance Commentary**

• JP Morgan returned 4.3% over the year (in local currency terms), against a benchmark of 4.2%. Long/short equity and relative value strategies were the biggest contributors to performance over the period.

<sup>&</sup>lt;sup>1</sup> Returns are in US dollar terms; source: Credit Suisse Hedge Index LLC.

### MANAGER MONITORING DGF

		1 Y	ear (%)		3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
Pyrford	-1.8	8.5	-9.4	-0.30	3.3	7.8	-4.2	-	-0.14
Aberdeen Standard	1.0	5.5	-4.3	-0.23	-0.8	5.6	-6.1	-	-0.40
Ruffer	N/A	N/A	N/A	N/A	-0.4*	2.8*	-3.2*	-	-0.15*

Source: Avon, Investment Managers and Mercer estimates.

#### **Performance Commentary**

- Over the last year, Pyrford materially underperformed its benchmark by 9.4%. Aberdeen Standard also underperformed versus its benchmark by 4.3%.
- The DGF portfolio initiated over the last year with Ruffer also underperformed its benchmark, by 3.2% since inception
- The benchmark used for the DGFs includes their outperformance target above cash. Growth asset returns over the year have been modest, meaning opportunities to hit the high performance targets have been limited. These targets are set over the longer term and conclusions cannot be drawn over a 12 month period.
- Whilst Pyrford has a largely static asset allocation investment strategy, the DGF portfolios managed by Aberdeen Standard and Ruffer are dynamic.
- 2017 saw the merger between Aberdeen and Standard Life.

<sup>\*</sup> Returns since inception on 27 September 2017 shown as fund has not been invested for the whole period.

#### MANAGER MONITORING CORPORATE BONDS

		1 Year (%)				3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance	
RLAM (terminated)*	1.8	1.0	+0.8	+0.05	4.3	3.5	+0.8	+0.8	+0.04	

Source: Avon, Investment Managers and Mercer estimates.

#### **Market Commentary**

• In a broad risk-on environment, credit spreads tightened over the year resulting in a total return of 1.3% for UK corporate bonds.

#### **Performance Commentary**

- The corporate bond mandate with RLAM was terminated during the last year.
- BlackRock provides passive corporate bond exposure, with 1.8% of total Fund's assets invested in the asset class at the end of the year.

<sup>\*</sup> Performance shown up to termination, e.g. for the last year performance is shown from 31 March 2017 to termination.

### MANAGER MONITORING PROPERTY

	1 Year (%)				3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
Schroder	10.2	10.1	+0.1	+0.01	7.7	8.1	-0.4	+1	-0.01
Partners	6.0	10.0	-3.6	-0.17	4.8	10.0	-4.8	-	-0.21

Source: Avon, Investment Managers and Mercer estimates. Returns for Partners are in local currency terms.

#### **Market Commentary**

- The UK property market returned 10.1% over the year (measured by the UK IPD PPF All Balanced Funds Index the benchmark for the Schroder mandate). UK property investors continue to benefit from the improving property market.
- Partners' performance target is 10% p.a. and benchmark taken as 8% p.a. (estimated net IRR, in local currency terms).

#### **Performance Commentary**

- Schroder slightly outperformed the benchmark over the year and underperformed over the three year period. Value Add strategies have been the largest contributors to performance over the various time spans.
- Partners' drawdowns are made gradually over time, and the Fund is not yet fully invested. As a result of the volatile timing of cash flows for such investments, for example the initial costs of purchasing and developing properties, focus should be on longer term performance. Their IRR from inception to 31 March 2018 at 7.5% p.a. (in local currency) is below their target of 10% p.a.

### MANAGER MONITORING INFRASTRUCTURE

		1 Year (%)				3 years (% p.a.)				
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance	
IFM	30.8	3.7	+26.2	+1.33	N/A	N/A	N/A	-	N/A	

Source: Avon, Investment Managers and Mercer estimates. Returns are in local currency terms.

#### **Market Commentary**

• The infrastructure market was poor over the year, returning -6.3% as measured by the S&P Global Infrastructure Index in sterling terms. Returns of this index have been largely driven by currency moves. The 100% hedge in place for the infrastructure mandate removes the currency effect from the actual returns earned.

#### **Performance Commentary**

- Over the year, IFM delivered a strong positive performance, in local currency terms.
- The portfolio consists of 15 holdings and most of it is invested in the United States, United Kingdom and Mexico.
   Toll roads and airports represent the main sub-sector allocations of the fund.

#### MANAGER MONITORING **MULTI-ASSET CREDIT**

		1 Year (%)				3 years (% p.a.)			
Manager / fund	Fund	B'mark	Relative	Contribution to outperformance	Fund	B'mark	Relative	Target	Contribution to outperformance
Loomis Sayles	N/A	N/A	N/A	N/A	-0.5*	-1.0*	+0.5*	-	+0.05*

#### **Performance Commentary**

- Over the period since inception to 31 March 2018, Loomis outperformed its composite benchmark.
- The portfolio is mainly invested in investment grade, high yield and emerging market bonds and has a duration of 4.8 years.

© MERCER 2018 36

Source: Avon, Investment Managers and Mercer estimates.

\* Returns since inception on 29 September 2017 shown as fund has not been invested for the whole period.

#### MANAGER MONITORING Currency Hedging 12 Month Performance (£ terms) CURRENCY

#### **Market Commentary**

- Over the 12 month period to 31 March 2018, sterling rose 12.2% against the US dollar from \$1.25 to \$1.40 and 7.1% against the yen from ¥139.34 to ¥149.19. Sterling depreciated against the euro by 2.4% from €1.17 to €1.14 over the same period.
- Sterling appreciating against the US dollar over a period when US interest rates rose can be explained by simultaneous current account deficit and a budget deficit, which has been negative for the US dollar. This led to gains for hedged Sterling investors in US assets.

#### **Performance Commentary**

Over the 12 month period to 31 March 2018, the hedging mandates have all slightly outperformed their informal benchmark returns.

	Passive Developed Equity Hedge									
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	50% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)				
USD	566,546,627	752,603,044	(10.86%)	4.94%	5.08%	(5.99%)				
EUR	186,052,434	164,576,524	2.50%	(1.03%)	(0.96%)	1.82%				
JPY	135,640,419	105,780,087	(6.60%)	3.35%	3.66%	(2.75%)				
Total	888,239,480	1,022,959,655	-7.72%	3.54%	3.66%	-4.04%				

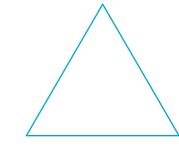
	Passive Hedge Fund Hedge								
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)			
USD	226,422,372	214,064,666	(10.86%)	10.30%	10.53%	(0.81%)			
Total	226,422,372	214,064,666	(10.86%)	10.30%	10.53%	(0.81%)			

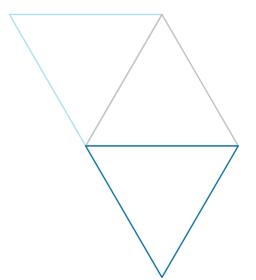
	Passive Property Hedge									
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)				
USD	36,735,954	27,616,464	(10.86%)	5.86%	10.53%	(0.82%)				
EUR	147,562,492	177,024,039	2.50%	(1.31%)	(1.89%)	0.99%				
Total	184,298,446	204,640,503	0.11%	0.12%	0.19%	0.70%				

Passive Infrastructure Hedge								
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)		
USD	145,827,716	114,820,336	(10.86%)	10.24%	10.49%	(0.81%)		
EUR	28,275,512	42,928,700	2.50%	(2.00%)	(1.98%)	0.94%		
Total	174,103,228	157,749,036	(8.40%)	7.87%	8.06%	(0.43%)		

37 © MERCER 2018

# APPENDIX 2 SUMMARY OF MANDATES

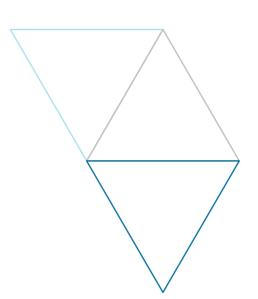


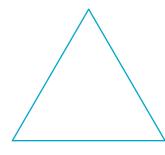


#### SUMMARY OF MANDATES

Manager	Mandate	Benchmark	Outperformance Target (p.a.)
BlackRock	Passive Global Low Carbon Equity	MSCI World Low Carbon Target	-
BlackRock	Passive Corporate Bond	iBoxx £ Non-Gilts Over 15 Years	-
BlackRock	Matching (Liability Driven Investing)	Return on liabilities being hedged	-
Jupiter Asset Management	UK Equities (Socially Responsible Investing)	FTSE All Share	+2%
TT International	UK Equities (Unconstrained)	FTSE All Share	+3-4%
Schroder	Global Equities (Unconstrained)	MSCI AC World Free	+4%
Genesis	Emerging Market Equities	MSCI Emerging Markets IMI TR	-
Unigestion	Emerging Market Equities	MSCI Emerging Markets NET TR	+2-4%
Invesco (terminated)	Global ex-UK Equities (Enhanced Indexation)	MSCI World ex UK NDR	+0.5%
SSgA (terminated)	Europe ex-UK Equities (Enhanced Indexation)	FTSE AW Europe ex UK	+0.5%
SSgA (terminated)	Pacific inc. Japan Equities (Enhanced Indexation)	FTSE AW Dev Asia Pacific	+0.5%
Pyrford	Diversified Growth Fund	RPI +5% p.a.	-
Aberdeen Standard	Diversified Growth Fund	6 Month LIBOR +5% p.a.	-
Ruffer	Diversified Growth Fund	3 Month LIBOR +5% p.a.	-
JP Morgan	Fund of Hedge Funds	3 Month LIBOR +3% p.a.	-
Schroder	UK Property	IPD UK Pooled	+1%
Partners	Overseas Property	Net IRR of 10% p.a. (local currency)	-
IFM	Infrastructure	6 Month LIBOR +2.5% p.a.	-
Loomis Sayles	Multi-Asset Credit	50% Barclays Global Agg, 25% Barclays Global HY, 15% JPM CEMBI, 10% S&P/LSTA Leveraged Loan	+0.5-1.0%
RLAM (terminated)	UK Corporate Bonds	iBoxx £ Non-Gilts All Maturities	+0.8%
Record	Passive Currency Hedging	N/A	-
Cash	Internally Managed	7 Day LIBID	-

# APPENDIX 3 MARKET STATISTICS INDICES



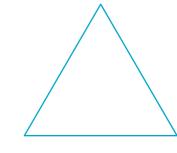


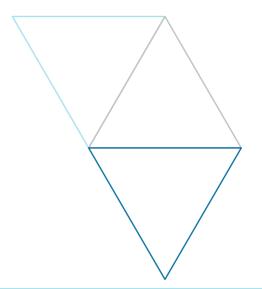
#### MARKET STATISTICS INDICES

Asset Class	Index
UK Equities	FTSE All-Share
Global Equity	FTSE All-World
Overseas Equities	FTSE World ex UK
US Equities	FTSE USA
Europe (ex-UK) Equities	FTSE W Europe ex UK
Japanese Equities	FTSE Japan
Asia Pacific (ex-Japan) Equities	FTSE W Asia Pacific ex Japan
Emerging Markets Equities	FTSE AW Emerging
Global Small Cap Equities	FTSE World Small Cap
Hedge Funds	HFRX Global Hedge Fund
High Yield Bonds	BofA Merrill Lynch Global High Yield
Emerging Market Debt	JP Morgan GBI EM Diversified Composite
Property	IPD UK Monthly Total Return: All Property
Infrastructure	S&P Global Infrastructure
Commodities	S&P GSCI
Over 15 Year Gilts	FTA UK Gilts 15+ year
Sterling Non Gilts	BofA Merrill Lynch Sterling Non Gilts All Stocks
Over 5 Year Index-Linked Gilts	FTA UK Index Linked Gilts 5+ year
Global Bonds	BofA Merrill Lynch Global Broad Market
Global Credit	Barclays Capital Global Credit
Eurozone Government Bonds	BofA Merrill Lynch EMU Direct Government
Cash	BofA Merrill Lynch United Kingdom Sterling LIBOR 3 month constant maturity

These are the indices used in this report for market commentary; individual strategy returns are shown against their specific benchmarks.

# APPENDIX 4 CHANGES IN YIELDS



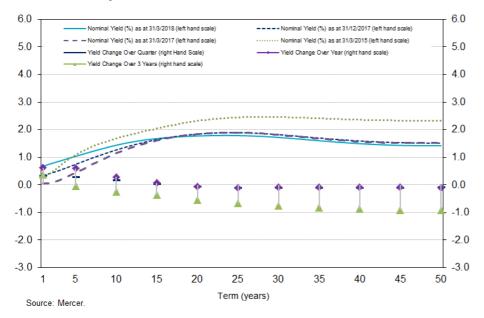


#### CHANGES IN YIELDS

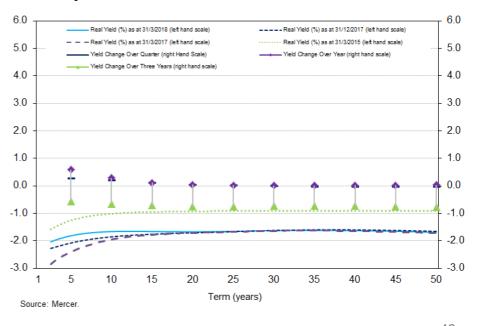
Asset Class Yields (% p.a.)	31 Mar 2018	31 Dec 2017	31 Mar 2017	31 Mar 2016
UK Equities	3.85	3.59	3.47	3.77
Over 15 Year Gilts	1.63	1.68	1.65	2.17
Over 5 Year Index-Linked Gilts	-1.65	-1.66	-1.71	-0.97
Sterling Non Gilts	2.47	2.17	2.20	2.90

- UK Government Bonds, as measured by the FTSE Gilts All Stocks Index, returned 0.5%, while long dated issues as measured by the corresponding Over 15 Year Index returned 2.2% over the year. The yield for the FTSE Gilts All Stocks Index rose marginally over the year from 1.44% to 1.54%.
- The FTSE Over 5 Year Index Linked Gilts Index returned 0.7%.
- In a broad risk-on environment, credit spreads tightened over the year resulting in a total return of 1.3% for UK corporate bonds.

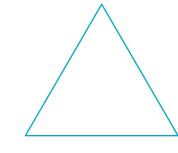
#### Nominal yield curves

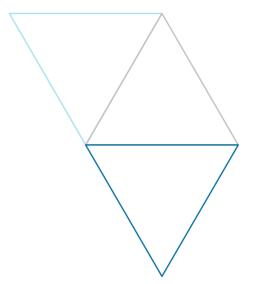


#### Real yield curves



# APPENDIX 5 HEDGE FUND INDICES





#### HEDGE FUND INDICES

#### **HFRI Diversified Fund of Fund Index**

- The Diversified Fund of Fund Index is an equally-weighted index comprising fund of fund managers that satisfy the following criteria: Invest in a variety of strategies across multiple managers, exhibit standard deviation and returns correlation similar to the HFR Fund of Funds composite index.
- The trailing four months' performance figures are left as estimates and are subject to change; performance beyond four months is locked and not subject to change.
- If a fund liquidates or closes, that fund's performance will be included in the index as of the fund's last reported performance.
- There is no minimum asset size or minimum track record length requirement for inclusion in the index.
- Both domestic and offshore funds are included.

#### **HFRX Global Hedge Fund Index**

- The HFRX Global Hedge Fund Index is an "investible" index designed to be representative of the overall
  composition of the hedge fund universe (it is termed "investible" because investors are able to access all
  of the underlying funds and as such generate a return in line with the index).
- It is comprised of eight strategies: convertible arbitrage, merger arbitrage, equity hedge, equity market neutral, relative value arbitrage, event driven, distressed securities, and global macro.
- The strategies are asset weighted based on the distribution of assets in the hedge fund industry.

#### **Credit Suisse Hedge Fund Index**

- The Credit Suisse Hedge Fund Index (formerly the Dow Jones Credit Suisse/Tremont Hedge Fund Index) is an asset weighted index of hedge funds.
- Funds in the Dow Jones Credit Suisse Hedge Fund universe must have a minimum of US \$10 million assets under management ("AUM"), a minimum one-year track record and current audited financial statements.

# MAKE TOMORROW, TODAY

Mercer Limited is authorised and regulated by the Financial Conduct Authority Registered in England No. 984275.

Registered Office: 1 Tower Place West, Tower Place, London EC3R 5BU.