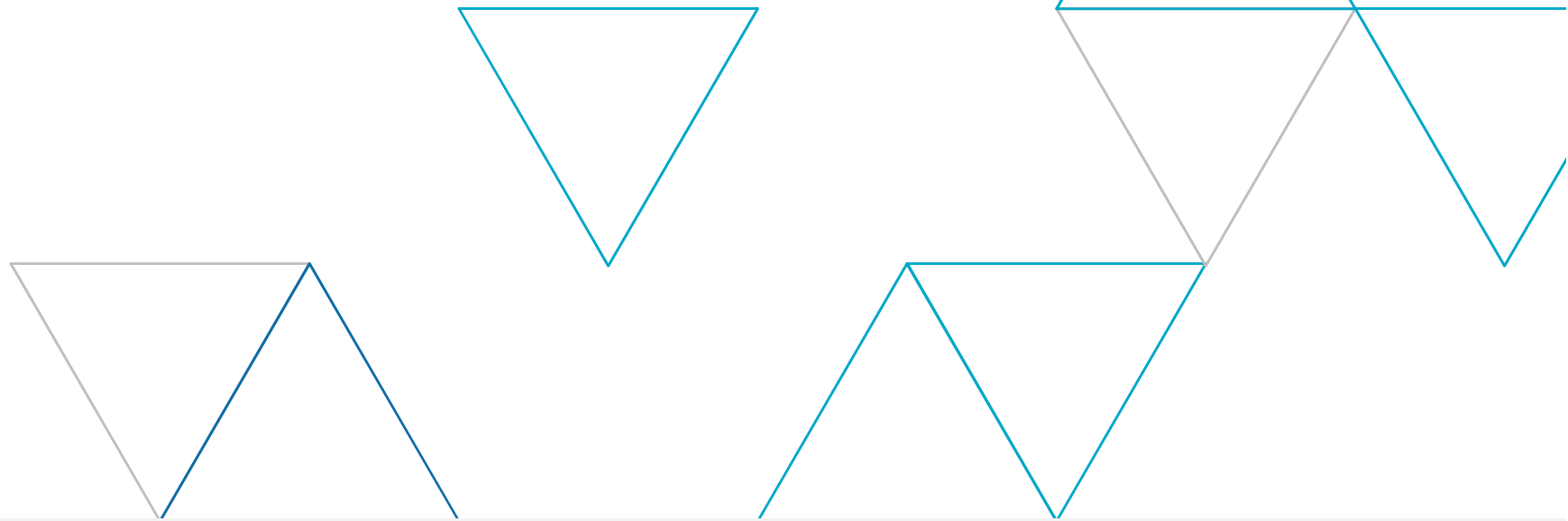


HEALTH WEALTH CAREER

# AVON PENSION FUND

## PANEL INVESTMENT PERFORMANCE REPORT QUARTER TO 31 DECEMBER 2016

FEBRUARY 2017



# IMPORTANT NOTICES

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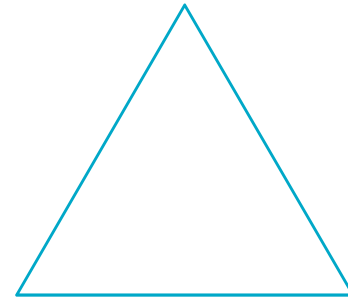
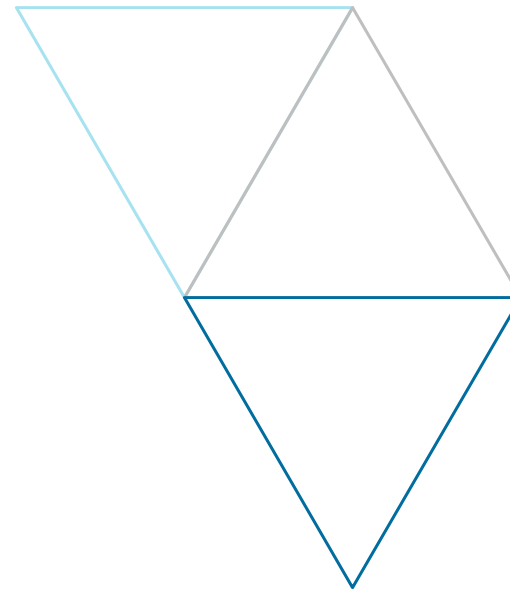
- The value of investments can go down as well as up and you may not get back the amount you have invested. In addition investments denominated in a foreign currency will fluctuate with the value of the currency.
- The valuation of investments in property based portfolios, including forestry, is generally 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.

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# SECTION 1

## EXECUTIVE SUMMARY



# EXECUTIVE SUMMARY

This report has been prepared for the Investment Panel of the Avon Pension Fund (“the Fund”), to assess the performance and risks of the investment managers of the Fund.

## Fund performance

- The value of the Fund’s assets increased by £73m over the quarter, to £4,194m at 31 December 2016. This increase has come from growth assets, with strong returns in particular from global equities over the quarter.

## Strategy

- Global (developed) equity returns over the last three years at 15.0% p.a. have been ahead of the assumed strategic return of 8.25% p.a. from the review in March 2013. We remain broadly neutral in our medium term outlook for developed market equities (over the next one to three years). Accommodative monetary policy remains generally supportive of equity markets but uninspiring earnings growth and downwards revisions to earnings estimates persist.
- The three year return from emerging market equities has increased to 9.4% p.a. from 8.4% p.a. last quarter. The three year return is therefore now above the assumed strategic return (of 8.75% p.a.) as returns have been strong over the last year and fundamentals have improved. As with developed markets, we are neutral in our medium term outlook for emerging market equities over the next one to three years.
- UK government bond returns over the three years to 31 December 2016 remain significantly above the long term strategic assumed returns (with fixed interest gilts returning 14.4% p.a. against an assumed return of 4.5% p.a., and index-linked gilts returning 15.2% p.a. versus an assumed return of 4.25% p.a.) as investor demand for gilts remains high. However gilt yields did rise over the quarter leading to negative returns.

# EXECUTIVE SUMMARY

## Strategy (continued)

- UK corporate bonds returned 7.8% p.a. over the three year period, being above their assumed return of 5.5% p.a., while UK property returns of 11.8% p.a. continue to be substantially above the assumed strategic return of 7% p.a.
- Hedge fund returns remain below long term averages and the strategic return of 6% p.a., as they are affected by low cash rates, and as active managers in general have struggled to generate meaningful returns.
- Looking forward into 2017, Mercer have four key themes and opportunities we believe will play out in markets;
  - **Political fragmentation and “deglobalisation”** - growing nationalism together with what some have dubbed “the death of liberal politics” are likely to remain prominent political influences for some time. The risks to growth from increasing isolationism and protectionist trade policies are therefore high.
  - **Shift from monetary to fiscal stimulus** - 2016 saw the limits of monetary stimulation being recognised whilst mainstream economic voices and populist politicians called for greater fiscal stimulus. This switch in focus could have important implications in the years ahead, particularly for inflation.
  - **Capital abundance** - After eight years of monetary stimulation real yields are below zero in much of the developed world and most asset classes have seen significant price inflation. We believe it could be difficult to generate strong real returns over the next 3-5 years, but that by ensuring a diverse range of return drivers will improve investors’ chances of doing so. A flexible approach will be required.
  - **Understanding structural change** - Whilst general elections will continue to grab the headlines, demographic and climate change together with technological disruption are longer term trends that cannot be ignored. Identifying the broad market outcomes from these forces will help investors manage risk and returns by investors over the long term.

# EXECUTIVE SUMMARY

## Managers

- Absolute returns of the managers over the quarter were largely positive. The exceptions were Royal London and Unigestion, who delivered returns of -1.8% and -1.3% respectively, though Royal London's performance is understandable given the rise in corporate bond yields over the quarter. Invesco produced the highest return over the quarter, returning nearly 10%. After a period of underperformance, Standard Life GARS outperformed its benchmark.
- Absolute returns over the year to 31 December 2016 were strong. All mandates (with the exception of Standard Life GARS) delivered positive absolute returns, and all overseas equities mandates returned over 20%, largely due to the weakening of sterling over 2016.
- Over three years, all mandates with a three year track record produced positive absolute returns. A number of active funds underperformed their benchmarks over the period: Jupiter, Schroder Global Equities and Property, Genesis, Unigestion, Pyrford and Partners (although see comments on the measurement of Partners' performance later). On the other hand, Invesco and the SSgA mandates achieved their three-year performance objectives. TT and Royal London failed to achieve their performance objectives despite achieving benchmark returns net of fees.

# EXECUTIVE SUMMARY

## Key points for consideration

- There were significant currency swings over the quarter, with sterling falling 4.9% against the US dollar, but appreciated against the euro and Japanese yen by 1.3% and 9.6% respectively.
- Relative returns of the UK equity managers have been disappointing over both the quarter and year. This has been a period of significant volatility with the fallout from the EU Referendum result and also the impacts of the US election towards the end of the period. TT's underperformance has come about through consistent underperformance in each quarter. However Jupiter's underperformance largely came in Q2 2016 due to the fund's overweight exposure to UK domestic-focused companies, as the result of the EU Referendum led to concerns of economic growth in the UK, and an underweight position in oil & gas and mining stocks and exposure to consumer staples stocks such as tobacco.
- The Fund is in the process of implementing the liability management mandate; and expect IFM to drawdown c. £80m in Q1 2017 (which will be taken from the Fund's overweight US equity holding).
- The Fund is looking to consider options on ESG investment, in particular regarding the Fund's passive equity holdings, following the review last quarter.



# EXECUTIVE SUMMARY

## MANAGER INFORMATION

Manager	Mandate	Research Rating	Short Term Performance (1 year)	Long Term Performance (3 year)	ESG	Page
BlackRock	Passive Multi-Asset	✓	✓	✓	P2	27
Jupiter	UK Equities	-	×	×	2	28
TT International	UK Equities	-	×	-	3	29
Schroder	Global Equities	✓	×	×	2	30
Genesis	Emerging Market Equities	✓	×	×	3	31
Unigestion	Emerging Market Equities	-	×	×	N	32
Invesco	Global ex-UK Equities	✓	✓	✓	4	33
SSgA	Europe ex-UK Equities	-	✓	✓	N	34
SSgA	Pacific inc. Japan Equities	-	✓	✓	N	35
Meets criteria	✓	A or B+ rating; achieved performance target				
Partially meets criteria	-	B, N or R rating; achieved benchmark return but not performance target				
Does not meet criteria	×	C rating; did not achieve benchmark				

### Focus Points

§ Unigestion's mandate now has a three year track record, and as a result longer term performance analysis is shown above.

# EXECUTIVE SUMMARY

## MANAGER INFORMATION CONTINUED

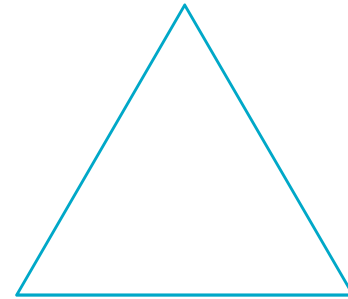
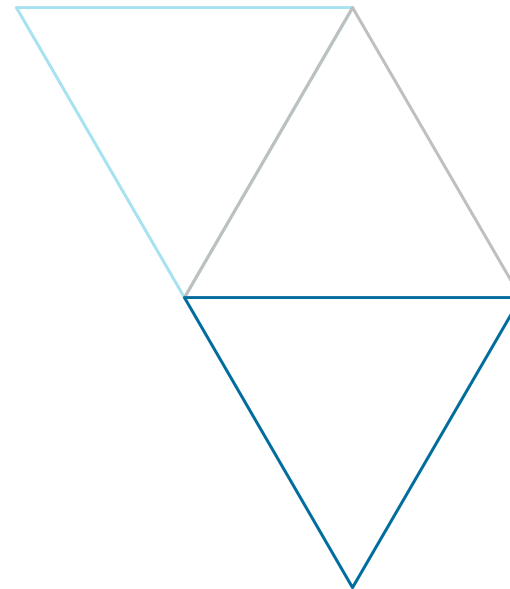
Manager	Mandate	Research Rating	Short Term Performance (1 year)	Long Term Performance (3 year)	ESG	Page
Pyrford	DGF	-	✓	✗	N	36
Standard Life	DGF	-	✗	N/A	4	38
JP Morgan	Fund of Hedge Funds	✓	✗	N/A	4	39
Schroder	UK Property	-	✗	✗	3	43
Partners	Global Property	✓	-	-	4	44
IFM	Infrastructure	✓	N/A	N/A	2	45
RLAM	Bonds	✓	-	-	3	46
Record Currency Management	Currency Hedging	-	N/A	N/A	N	47
Meets criteria	✓	A or B+ rating; achieved performance target				
Partially meets criteria	-	B, N or R rating; achieved benchmark return but not performance target				
Does not meet criteria	✗	C rating; did not achieve benchmark				

### Focus Points

- § The Pyrford mandate now has a three year track record, and as a result longer term performance analysis is shown above.
- § Standard Life has appointed Archie Struthers to the role of Head of Investments. See page 38 for details.
- § Partners' performance target is 10% p.a. and benchmark taken as 8% p.a. (estimated net IRR, in local currency terms).

# SECTION 2

## MARKET BACKGROUND



# MARKET BACKGROUND INDEX PERFORMANCE

## Equity Market Review

The fourth quarter of 2016 saw equity markets continuing to rise. Most major developed equity markets moved higher over the quarter, with returns in sterling terms for US equities further boosted by the depreciation of sterling against the US dollar.

Within UK equities, large capitalisation stocks, as measured by the FTSE 100 index, returned 4.3% over the quarter, lagging parts of Europe and in particular the US. Small and mid-sized companies, as measured by the FTSE Small Cap Index and FTSE 250 Index, rose by 4.0% and 1.7% respectively over the quarter, underperforming large cap stocks. The continued uncertainty surrounding Brexit seems unlikely to be resolved in the short term.

Within global equity markets, US equities rose following the presidential and congressional elections, with investors anticipating infrastructure spending, tax reforms and deregulation. This rally was further buoyed by upbeat housing and labour market data. In Europe, performance varied by country, as investors digested a mixed bag of economic news. Positive manufacturing and consumer confidence data was offset by somewhat disappointing retail sales figures. Meanwhile, Japanese equities moved higher in local currency terms, helped by the significant decline of the yen relative to the US dollar. Performance of Emerging Markets equities was modest as a group in sterling terms and slightly negative in local currency terms. Performance continues to vary by country; Brazil was the big underperformer over the quarter following a smaller than expected benchmark interest rate cut of 25bps to 13.75%. Russia was one of the few standout performers, and benefitted from rising oil prices after OPEC announced its first oil production cut in eight years.

## Bond Market Review

Bond yields rose across all maturities over the quarter, resulting in negative absolute returns for investors.

In the UK, gilt yields rose amid expectations for higher inflation and the yield curve also steepened. The Over 15 Year Gilt Index underperformed the broader global bond market over the quarter, generating a negative return of 6.0%.

Real yields also rose over the quarter, though to a lesser extent, with increases varying between c.10bps and 20bps across the curve. The Over 5 Year Index-Linked Gilts Index was down 3.0% over the quarter.

Movements in credit spreads were marginal over the quarter, with the sterling Non-Gilts All Stocks Index ending the quarter at c.1.2% and the sterling Non-Gilts All Stocks over 10 years Index ending the quarter at c.1.3%. UK credit assets posted a negative return of 2.8% over the quarter, driven by rising bond yields and underperforming the broader global credit market.

## Currency Market Review

Over the quarter, Brexit uncertainty coupled with a rate rise by the Federal Reserve in the US led to sterling extending its depreciation against the US dollar (by c.4.9%). Sterling appreciated marginally against the euro (by c.1.3%) and materially against the Japanese yen (by c.9.6%), as the Bank of Japan's ongoing commitment to manage the yield curve through its bond purchase programme led to a weaker yen.

## Commodity Market Review

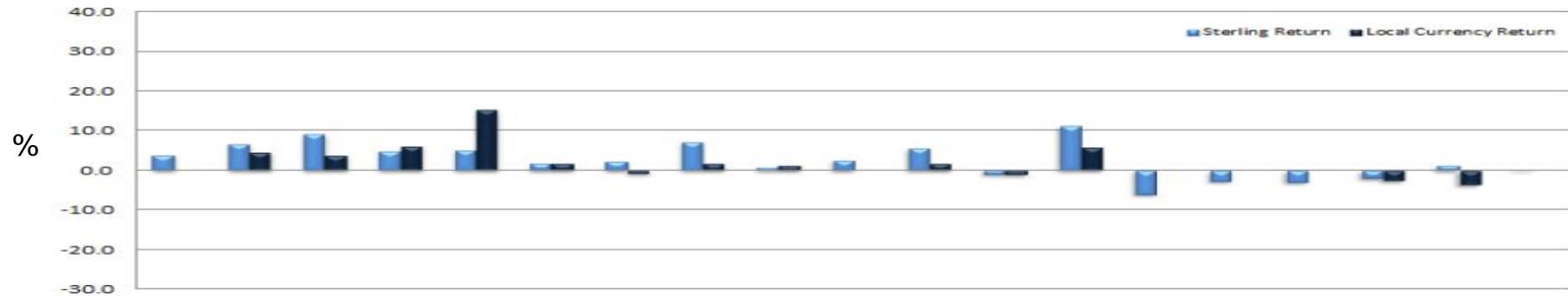
Most global commodity prices rose over the quarter, with returns driven by rebounding livestock prices and a pick up in the oil price following OPEC agreement to cut production. Negative returns were experienced by the precious metals sector, driven by a fall in the price of gold, and to a lesser extent the agriculture sector.

Brent Crude Oil price increased materially from US\$48.97/barrel to US\$56.71/barrel. Gold prices fell from c.\$1,321/oz to c.\$1,157/oz, as the previous uncertainty around the US elections subsided.

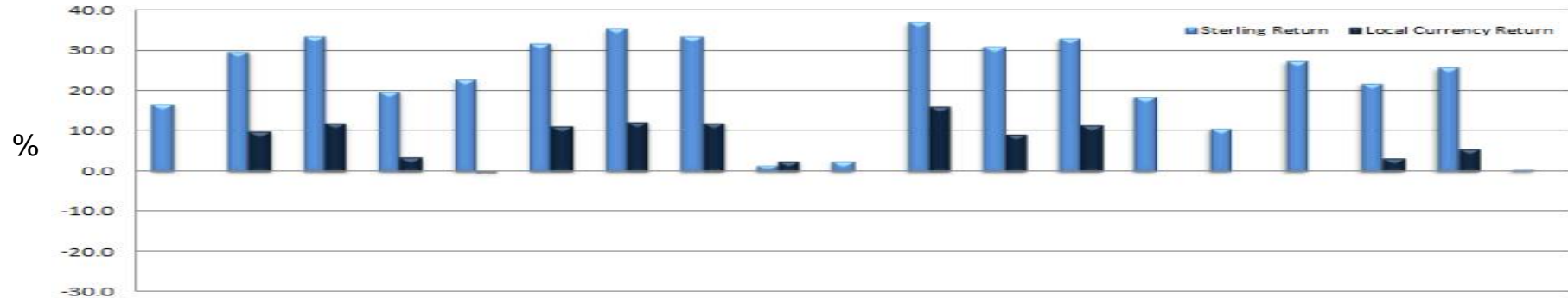
Source: Thomson Reuters Datastream.

# MARKET BACKGROUND INDEX PERFORMANCE

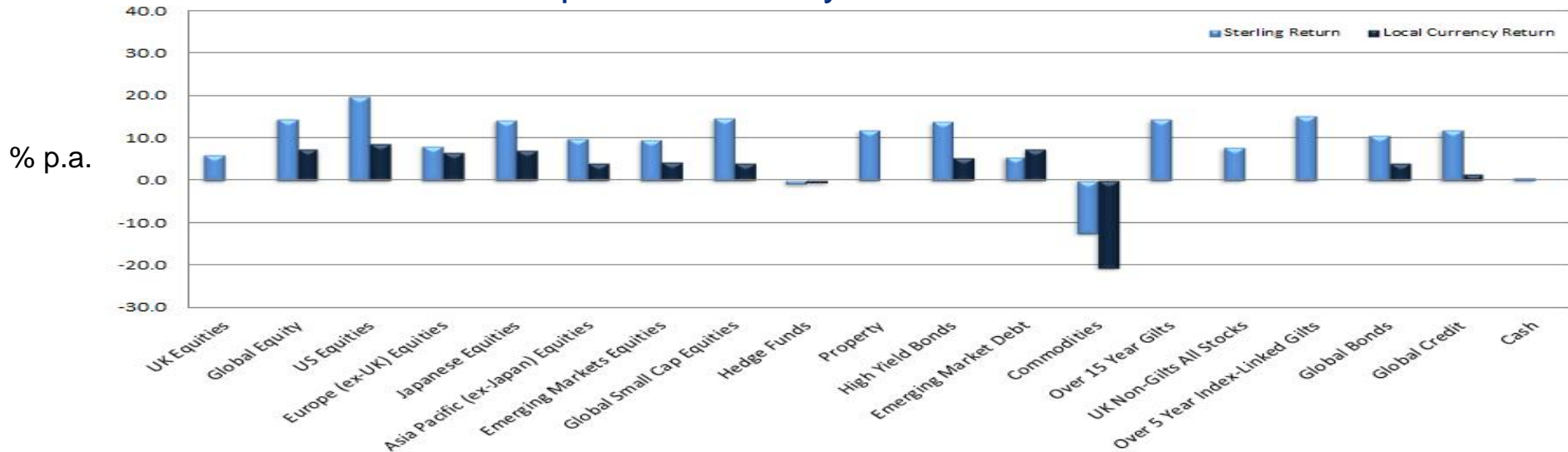
## Return over the 3 months to 31 December 2016



## Return over the 12 months to 31 December 2016



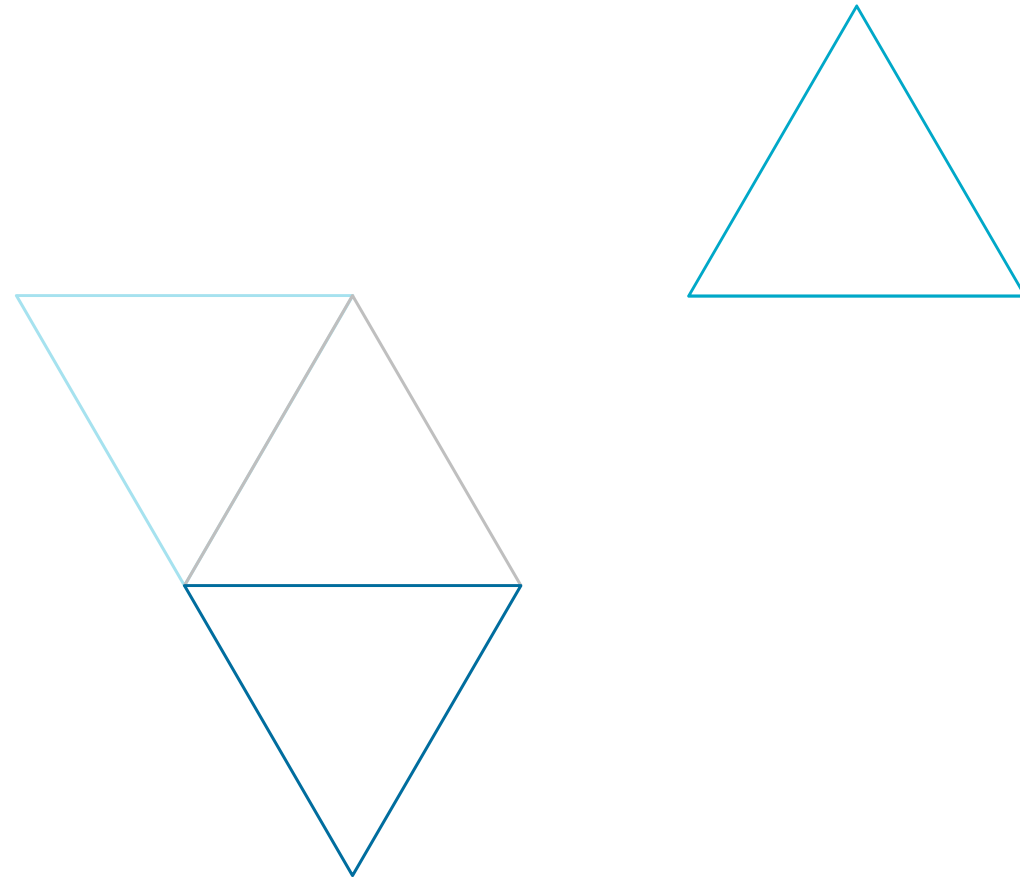
## Return p.a. over the 3 years to 31 December 2016



Source: Thomson Reuters Datastream.

# SECTION 3

## STRATEGIC ASSUMPTIONS



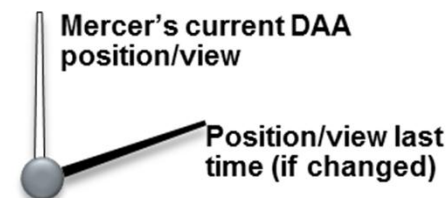
# MARKET BACKGROUND

## INDEX PERFORMANCE VERSUS STRATEGY

Asset Class	Strategy Assumed Return % p.a.	3 year Index Return % p.a.	Comment
<b>Developed Equities (Global)</b> (FTSE All-World Developed)	8.25	15.0	<i>Remains ahead of the assumed strategic return. This has increased from 14.4% p.a. last quarter as the latest quarter's return of 7.1% was higher than the 5.6% return of Q4 2013, which fell out of the 3 year return.</i>
<b>Emerging Market Equities</b> (FTSE AW Emerging)	8.75	9.4	<i>The three year return from emerging market equities has increased from 8.4% p.a. last quarter, as the return of 2.2% experienced last quarter was higher than the quarter that fell out of the period (-0.7%), in large part due to the weakening of sterling. The three year return is now above the assumed strategic return.</i>
<b>Diversified Growth</b>	Libor + 4% / RPI + 5%	4.6 / 6.8	<i>DGFs are expected to produce an equity like return over the long term but with lower volatility – this is the basis for the Libor and RPI based benchmarks. Low cash rates and low inflation means that both benchmarks have significantly underperformed the long term expected return from equity. During periods of strong equity returns we would expect DGF to underperform equities.</i>
<b>UK Gilts</b> (FTSE Actuaries Over 15 Year Gilts)	4.5	14.4	<i>UK gilt returns remain considerably above the long term strategic assumed return as yields remain low relative to historic averages, though returns have decreased compared to the previous quarter as yields increased over Q4 as the market began to price in inflation and more likely interest rate rises after Trump's election victory. Corporate bond returns are also ahead of the strategic assumed return.</i>
<b>Index Linked Gilts</b> (FTSE Actuaries Over 5 Year Index-Linked Gilts)	4.25	15.2	
<b>UK Corporate Bonds</b> (BofAML Sterling Non Gilts)	5.5	7.8	
<b>Fund of Hedge Funds</b> (HFRX Global Hedge Fund Index)	6.0	-1.0	<i>Hedge fund returns remain below long term averages and the strategic return, as they are affected by low cash rates. It should be noted that the index includes a wide variety of strategies that may have had very divergent returns.</i>
<b>Property</b> (IPD UK Monthly)	7.0	11.8	<i>Property returns continue to be ahead of the expected returns. Slowing rental growth post-Brexit has meant fundamentals have weakened and a more cautious outlook may be required. Nevertheless, property returned 2.6% over the fourth quarter of 2016.</i>
<b>Infrastructure</b> (S&P Global Infrastructure)	7.0	14.7	<i>Infrastructure returns are well above the expected returns, driven by a strong return in the first half of 2016. This return was in part driven by currency as sterling depreciated over the year. 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. This is also true of the global property mandate with Partners.</i>

# DYNAMIC ASSET ALLOCATION (DAA) DASHBOARD – Q1 2017

- Extremely Unattractive
- Unattractive
- Neutral
- Attractive
- Extremely Attractive



## DEVELOPED MARKET EQUITIES

- ✓ Accommodative monetary policy remains generally supportive of equity markets
- ✓ Stronger global growth coupled with supportive fiscal policy should translate into improved corporate earnings
- ⚠ Valuations have continued to trend upwards and a number of downside risks remain as a result of political uncertainty



## EMERGING MARKET EQUITIES

- ✓ Valuations remain around or slightly below long-term averages, though have risen over the year
- ✓ Positive earnings surprises and diminishing headwinds from key economies (e.g. China) as well as improving fundamentals
- ⚠ The potential for protectionist policies in the US as well as monetary policy normalisation could hurt the asset class

These charts summarise Mercer's views on the medium term outlook for returns from the key asset classes; by medium term we mean one to three years. These views are relevant for reflecting medium term market views in determining appropriate asset allocation. We do not expect investors to make frequent tactical changes to their asset allocation based upon these views. These are also based from the view of an absolute return investor, and so do not take into account pension scheme liabilities.



# DYNAMIC ASSET ALLOCATION (DAA) DASHBOARD – Q1 2017



## FIXED INTEREST GILTS (ALL STOCK)

- ✓ Ongoing extraordinary monetary policy in some economies coupled with geopolitical uncertainties may limit further upward yield movement
- ⚠ Valuations remain expensive, with nominal yields well below long-term average levels. US Fed expected to continue its rate hiking cycle throughout 2017



## INDEX-LINKED GILTS

- ✓ Breakeven inflation levels continue to rise, as global and UK inflation dynamics strengthen
- ⚠ Valuations increasingly expensive, with real yields well below long-term averages

# DYNAMIC ASSET ALLOCATION (DAA) DASHBOARD – Q1 2017



## NON-GOVERNMENT BONDS (£ ALL-STOCK)

- ✔ Despite tightening slightly over the quarter, credit spreads provide adequate coverage given expectations that the downgrade environment should remain benign
- ⚠ Yields remain historically low and prospective total returns appear to be relatively limited
- ⚠ Risk of increased volatility due to reduction in trading liquidity and heightened geopolitical downside risk

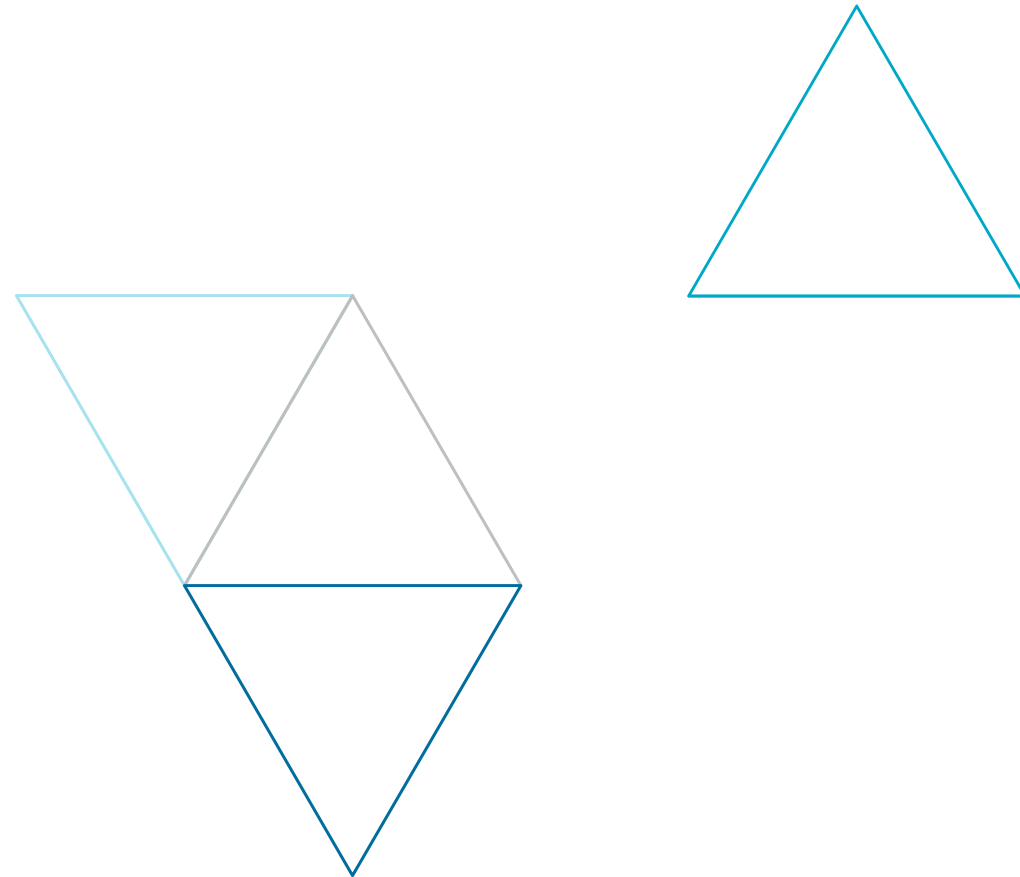


## UK PROPERTY

- ✔ Relative to other asset classes, some parts of the market still present attractive opportunities (e.g. HLV property)
- ⚠ Valuations remain expensive despite a slight rise in yields in most sectors
- ⚠ 'Brexit' and slowing rental growth have caused fundamentals to weaken and outlook may be more cautious

# SECTION 4

## FUND VALUATIONS



# FUND VALUATIONS

## VALUATION BY ASSET CLASS

Asset Allocation									
Asset Class	Start of Quarter (£'000)	End of Quarter (£'000)	Start of Quarter (%)	End of Quarter (%)	Target Strategic Benchmark (%)	Ranges (%)			Difference (%)
Developed Market Equities	1,752,287	1,787,868	42.5	42.6	40.0	35	-	45	+2.6
Emerging Market Equities	385,222	385,005	9.3	9.2	10.0	5	-	15	-0.8
Diversified Growth Funds	368,673	373,249	8.9	8.9	10.0	5	-	15	-1.1
Fund of Hedge Funds	215,363	228,293	5.2	5.4	5.0	0	-	7.5	+0.4
Property	372,582	359,830	9.0	8.6	10.0	5	-	15	-1.4
Infrastructure	153,772	161,546	3.7	3.9	5.0	0	-	7.5	-1.1
Bonds	858,641	836,387	20.8	19.9	20.0	15	-	35	-0.1
Cash (including currency instruments)	14,011	61,353	0.3	1.5	-	0	-	5	+1.5
<b>Total</b>	<b>4,120,797</b>	<b>4,193,529</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>				<b>0.0</b>

Source: BNY Mellon, Mercer. Green numbers indicate the allocation is within tolerance ranges, whilst red numbers indicate the allocation is outside of tolerance ranges. End of quarter asset split for Jupiter UK Equities assumed to be the same as start of quarter due to unavailability of data.

Invested assets increased over the quarter by £73m largely due to positive returns from growth assets. At the end of the quarter, all asset classes were within the agreed tolerance ranges.

# FUND VALUATIONS

## VALUATION BY MANAGER

Manager Allocation						
Manager	Asset Class	Start of Quarter (£'000)	Cashflows (£'000)	End of Quarter (£'000)	Start of Quarter (%)	End of Quarter (%)
BlackRock	Passive Multi-Asset	1,176,622	-61,379	1,128,514	28.6	26.9
Jupiter	UK Equities	188,908	-	192,988	4.6	4.6
TT International	UK Equities	222,410	-	227,939	5.4	5.4
Schroder	Global Equities	301,486	-	317,853	7.3	7.6
Genesis	Emerging Market Equities	179,161	-	181,570	4.3	4.3
Unigestion	Emerging Market Equities	206,060	-	203,435	5.0	4.9
Invesco	Global ex-UK Equities	337,782	-	370,926	8.2	8.8
SSgA	Europe ex-UK & Pacific inc. Japan Equities	142,333	-	149,560	3.5	3.6
Pyrford	DGF	135,239	-	136,061	3.3	3.2
Standard Life	DGF	233,435	-	237,188	5.7	5.7

Source: BNY Mellon, Avon. Totals may not sum due to rounding.

# FUND VALUATIONS

## VALUATION BY MANAGER CONTINUED

Manager Allocation						
Manager	Asset Class	Start of Quarter (£'000)	Cashflows (£'000)	End of Quarter (£'000)	Start of Quarter (%)	End of Quarter (%)
MAN	Fund of Hedge Funds	404	-	408	0.0	0.0
Signet	Fund of Hedge Funds	1,000	-	1,069	0.0	0.0
Gottex	Fund of Hedge Funds	3,334	-2,519	964	0.1	0.0
JP Morgan	Fund of Hedge Funds	210,966	-	225,852	5.1	5.4
Schroder	UK Property	194,155	-	197,435	4.7	4.7
Partners	Property	188,135 *	-5,845 *	181,744 *	4.6	4.3
IFM	Infrastructure	153,772	-	161,546	3.7	3.9
RLAM	Bonds	258,577	-	253,848	6.3	6.1
Record Currency Management	Currency Hedging	-62,320	63,600	-21,287	-1.5	-0.5
Internal Cash	Cash	49,337	6,143	45,918	1.2	1.1
<b>Total</b>		<b>4,120,797</b>	<b>-</b>	<b>4,193,529</b>	<b>100.0</b>	<b>100.0</b>

Source: BNY Mellon, Avon. Totals may not sum due to rounding.

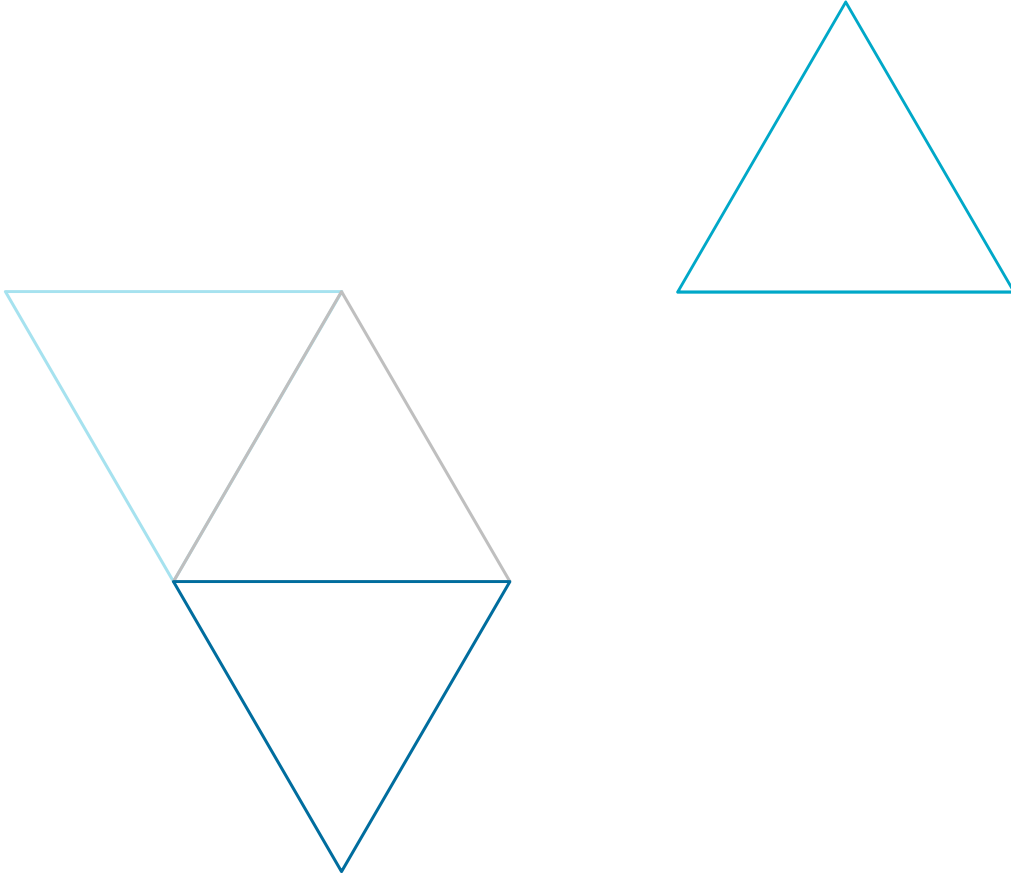
The cashflow column shows only the cash movements within the asset portfolio. It does not include non-investment cash movements such as employer contributions or pension payments made, however these amounts are included in the 'Internal Cash' start and end balance to reflect the asset value position of the total Fund.

\* The 'End of Quarter' value does not equal the 'Start of Quarter' value plus the 'Cashflows' value due to currency movements. 'Start of Quarter' valuation is converted at Q3 closing FX rate; 'Cashflows' are converted at the rate on the day they are received; 'End of Quarter' valuation is converted at Q4 closing FX rate.

# SECTION 5

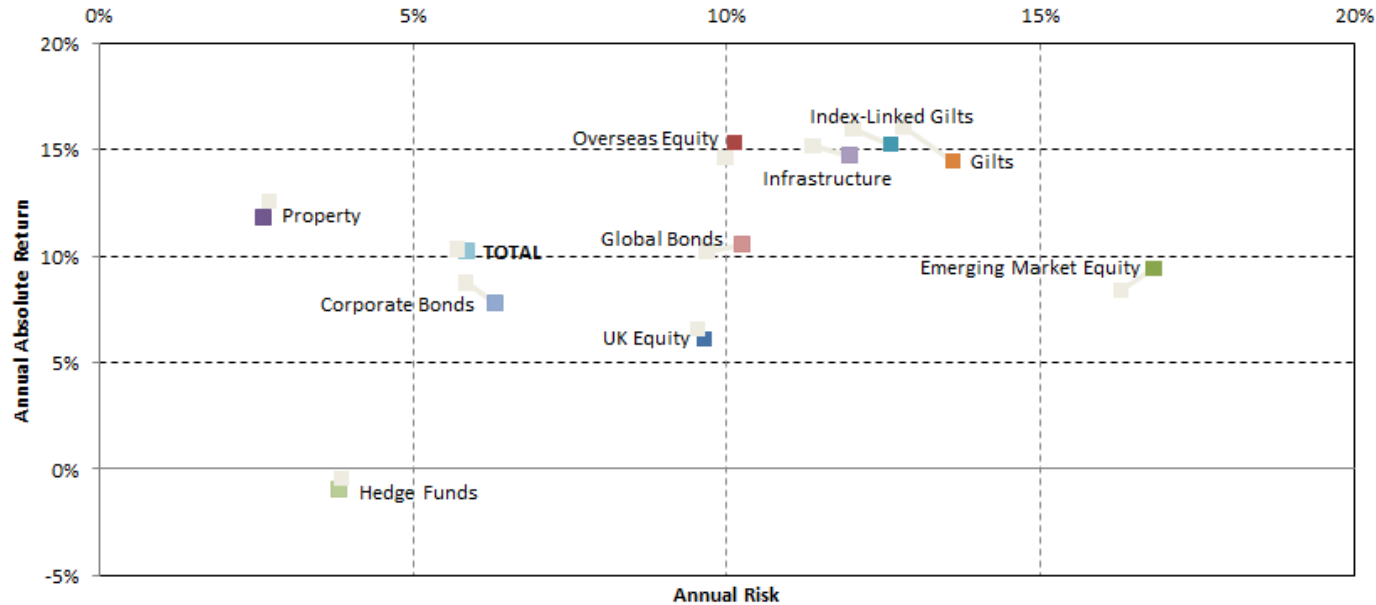
## PERFORMANCE

## SUMMARY



# MANAGER MONITORING RISK RETURN ANALYSIS

3 Year Risk v 3 Year Return to 31 December 2016



This chart shows the 3 year absolute returns against three year volatility (based on monthly data in sterling terms), to the end of December 2016, 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 last quarter, in grey.

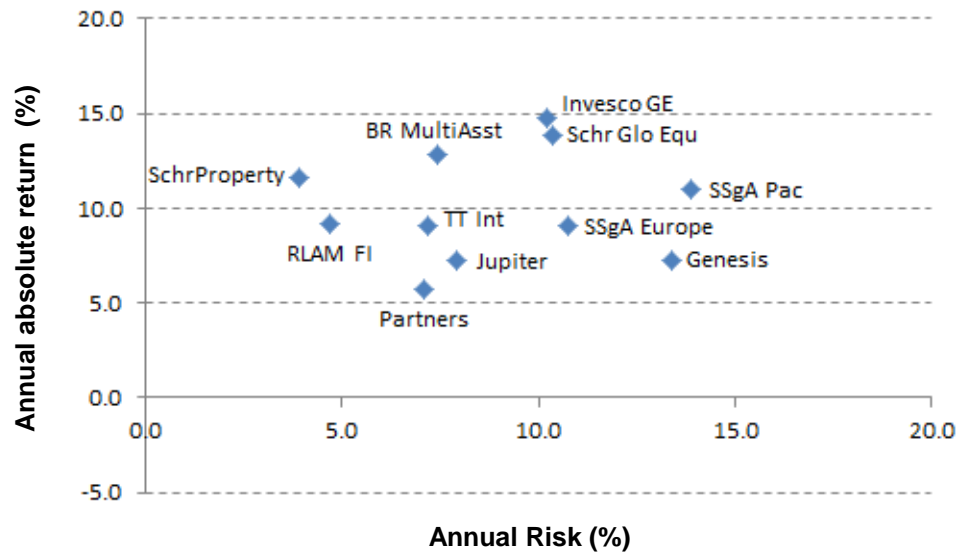
## Comments

- *There were very limited changes in observed returns and volatilities over the quarter. Emerging market 3-year return increase to 9.4% p.a., meaning the asset class is now above the assumed strategic return (of 8.75% p.a.). Gilt returns also fell over the quarter as yields rose.*

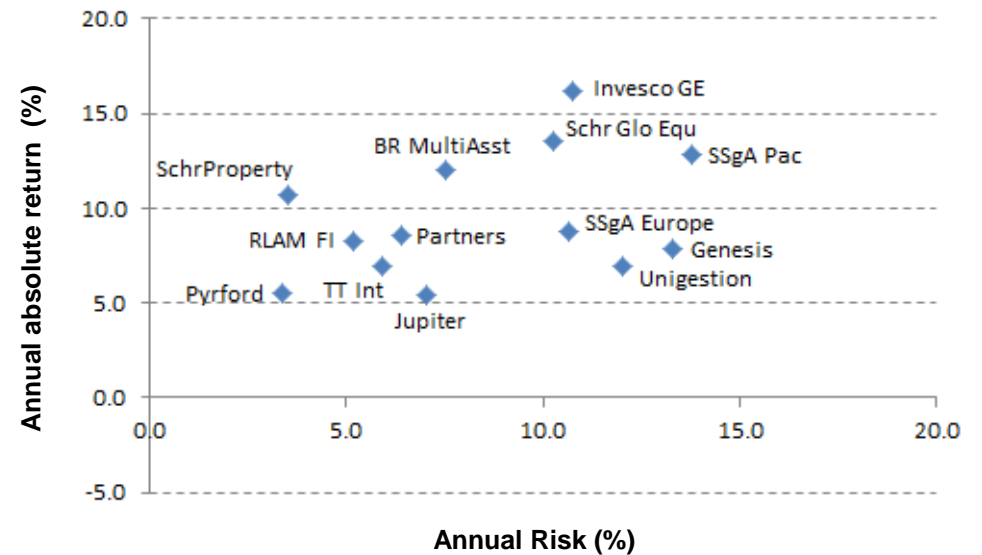


# MANAGER MONITORING RISK RETURN ANALYSIS

3 year Risk vs 3 year Return to 30 September 2016



3 year Risk vs 3 year Return to 31 December 2016



## Comments

- *Jupiter and TT saw their returns and volatilities decrease over the quarter. Royal London's return also decreased but with increased volatility. On a positive note, Partners' return increased.*
- *Unigestion and Pyrford have reached their three year since inception date.*

# MANAGER MONITORING

## MANAGER PERFORMANCE TO 31 DECEMBER 2016

Manager / fund	3 months (%)			1 year (%)			3 year (% p.a.)			3 year outperformance target (% p.a.)	3 year performance versus target
	Fund	B'mark	Relative	Fund	B'mark	Relative	Fund	B'mark	Relative		
BlackRock Multi-Asset	1.3	1.2	0.0	23.1	23.2	-0.1	12.0	11.9	+0.1	-	Target met
Jupiter	2.2	3.9	-1.7	9.6	16.8	-6.1	5.7	6.1	-0.4	+2	Target not met
TT International	2.5	3.9	-1.4	10.5	16.8	-5.4	6.9	6.1	+0.8	+3-4	Target not met
Schroder Equity	5.4	6.5	-1.0	25.2	29.4	-3.3	13.3	14.3	-0.9	+4	Target not met
Genesis	1.4	0.8	+0.5	33.0	33.1	-0.1	7.6	7.8	-0.2	-	Target not met
Unigestion	-1.3	0.8	-2.0	22.4	32.6	-7.8	7.0	8.4	-1.3	+2-4	Target not met
Invesco	9.8	7.3	+2.3	30.4	29.0	+1.1	16.2	15.3	+0.8	+0.5	Target met
SSgA Europe	5.8	4.8	+0.9	21.3	19.4	+1.6	8.9	8.1	+0.8	+0.5	Target met
SSgA Pacific	4.7	3.6	+1.0	26.7	25.4	+1.0	13.0	11.9	+1.0	+0.5	Target met
Pyrford	0.7	2.1	-1.4	10.5	7.6	+2.7	5.9	6.9	-0.9	-	Target not met
Standard Life	1.6	1.4	+0.2	-1.8	5.6	-7.0	N/A	N/A	N/A	-	N/A
JP Morgan *	1.9	1.0	+0.9	1.5	3.8	-2.2	N/A	N/A	N/A	-	N/A
Schroder Property	1.7	2.3	-0.5	2.0	2.8	-0.8	10.4	10.7	-0.2	+1	Target not met
Partners Property	N/A	N/A	N/A	N/A	N/A	N/A	8.0 **	10.0 **	-1.8 **	-	Target not met
IFM *	-0.1	0.7	-0.8	N/A	N/A	N/A	-0.5 **	1.5 **	-1.9 **	-	N/A
RLAM	-1.8	-2.6	+0.8	10.8	10.7	+0.1	8.2	7.7	+0.5	+0.8	Target not met
Internal Cash	0.1	0.0	0.0	0.3	0.3	+0.0	0.4	0.3	0.0	-	N/A

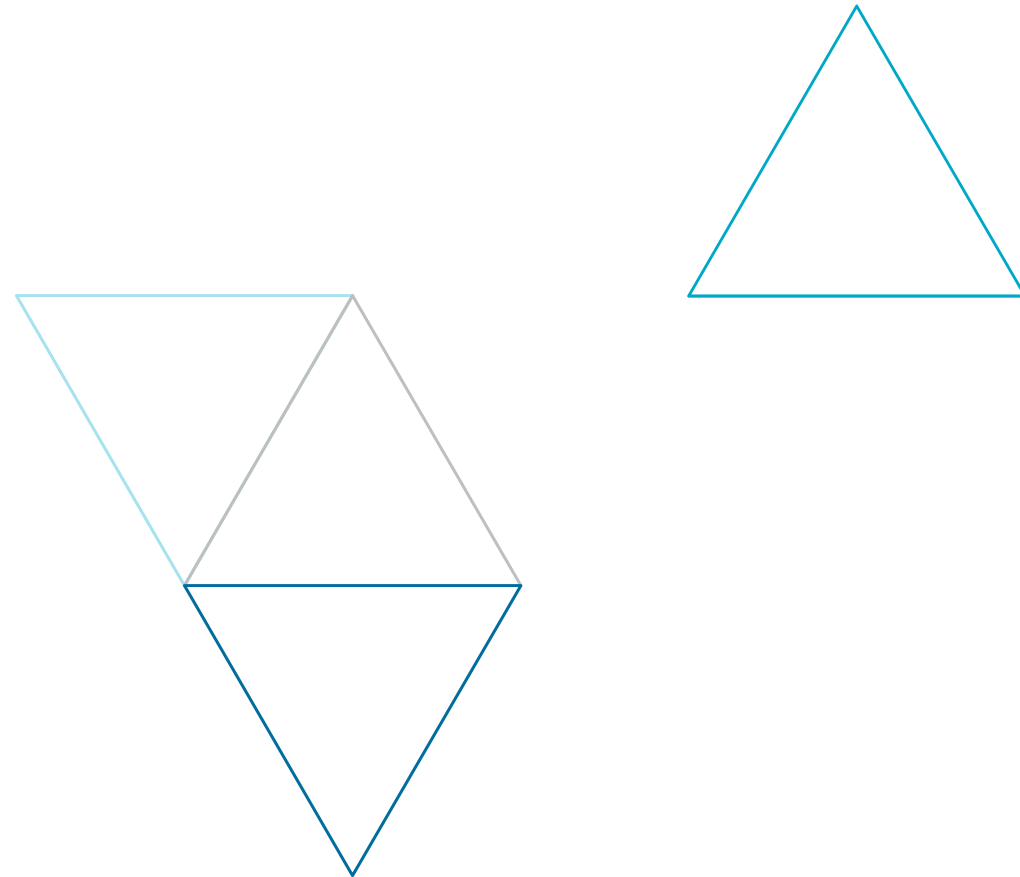
- Source: BNY Mellon, Avon, Mercer estimates.
- Returns are in GBP terms, consistent with overall fund return calculations before currency hedging in applied, except for JP Morgan, Partners and IFM, whose performance is shown as IRR in local currency terms.
- In the relative performance columns, returns 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.

\* Returns are in US dollar terms.

\*\* Performance is shown since inception.

# SECTION 6

## MANAGER PERFORMANCE



# BLACKROCK – PASSIVE MULTI-ASSET (POOLED EQUITIES, SEGREGATED BONDS)

## £1,128.5M END VALUE (£1,176.6M START VALUE)

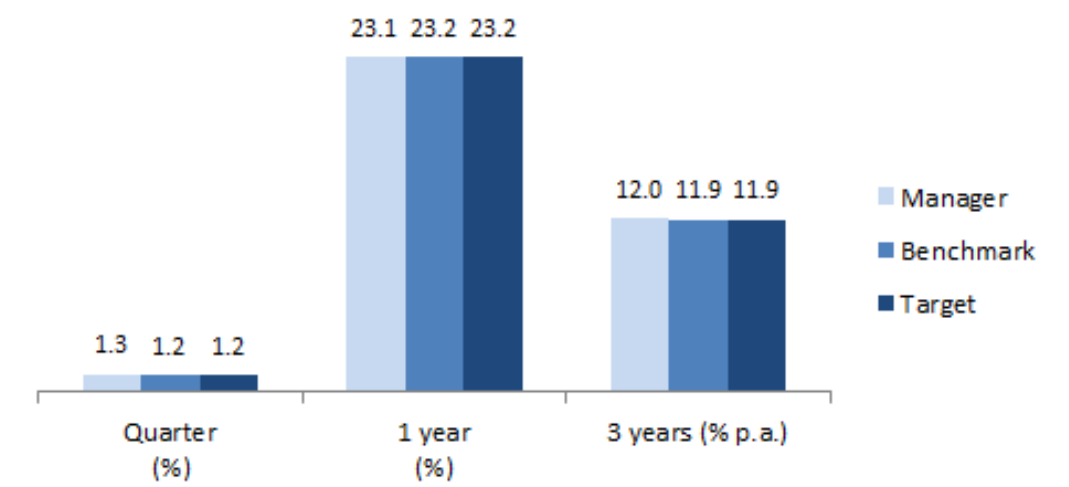
### Item Monitored Outcome

Mercer Rating	● A (no change over period under review). ESGp2 for equities
Performance Objective <i>In line with the benchmark</i>	● Performed broadly in line with the benchmark over three years

### Manager Research and Developments

- Overall, estimated BlackRock return was 1.3% over the quarter, performing broadly in line with the benchmark as expected; returns over one year and three year periods were within the tracking error ranges.

### Performance



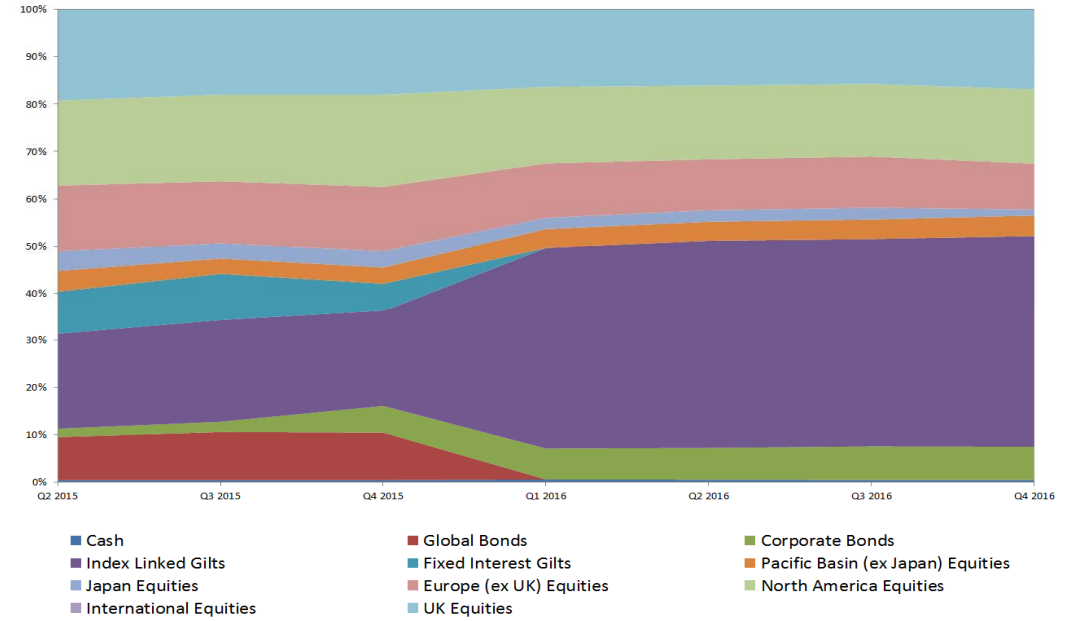
### Reason for investment

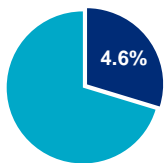
To provide asset growth as part of a diversified portfolio

### Reason for manager

- To provide low cost market exposure across multi asset classes
- Provide efficient way for rebalancing between bonds and equities within a single portfolio

### Asset Allocation





# JUPITER ASSET MANAGEMENT – UK EQUITIES (SRI) (SEGREGATED)

## £193.0M END VALUE (£188.9M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> B (no change over period under review). ESG2
Performance Objective <i>Benchmark +2% p.a.</i>	<span style="color: red;">●</span> Underperformed benchmark by 0.4% p.a. over three years
Tracking error was 4.5% p.a. (Q4 2016) – source: Jupiter	Number of stocks: 58 (Q4 2016)

### Manager Research and Developments

- Jupiter underperformed its benchmark over the fourth quarter by 1.7%. Jupiter's performance was also below TT's - the other UK equity fund invested in by the Fund.
- The underperformance over the quarter was primarily due to the strong performance of oil and gas firms, Royal Dutch Shell and BP, as both were excluded from the mandate due to concerns about their ESG record. The underweight position in HSBC (which has a index weight of over 5%) also weighed on performance in the quarter, as a result of the banking sector's rally.
- Over the year, Jupiter underperformed the benchmark by 6.1%. This largely came in Q2 2016 due to the fund's overweight exposure to UK domestic-focused companies, as the result of the EU Referendum led to concerns of economic growth in the UK, and an underweight position in oil & gas and mining stocks and exposure to consumer staples stocks such as tobacco.

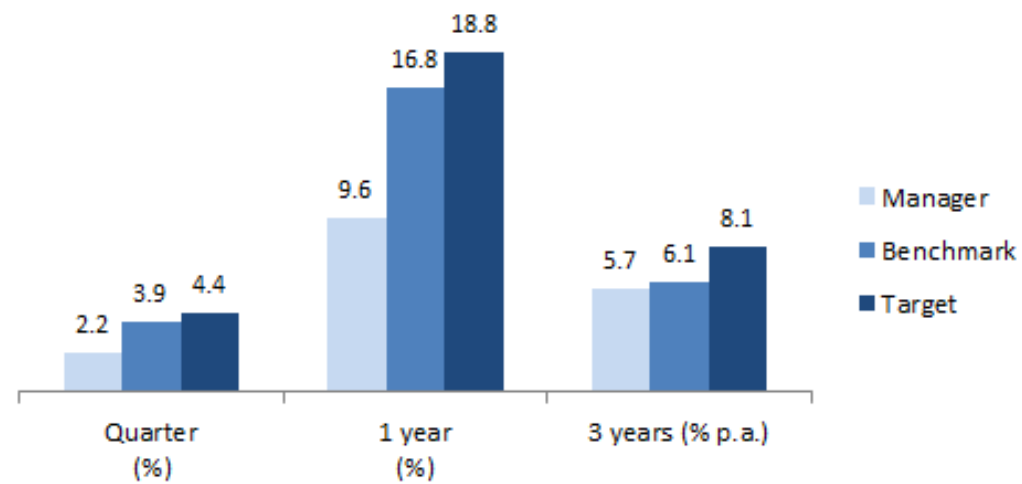
### Reason for investment

To provide asset growth as part of a diversified equity portfolio and to provide a specific SRI allocation

### Reason for manager

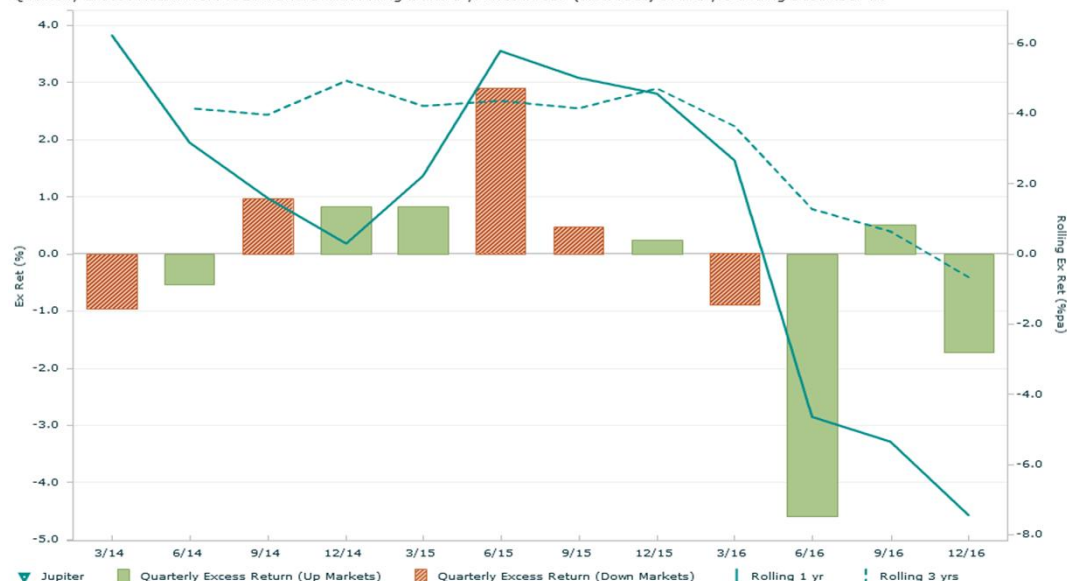
- Clear and robust approach to evaluating SRI factors within the investment process
- Dedicated team of SRI analysts to research SRI issues and lead engagement and voting activities
- Corporate commitment to SRI investment approach within a more mainstream investment team

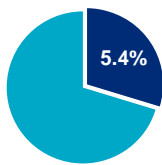
### Performance



### Rolling relative returns

Quarterly Excess Return vs. FTSE All Share with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# TT INTERNATIONAL – UK EQUITIES (UNCONSTRAINED) (SEGREGATED)

## £227.9M END VALUE (£222.4M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> B (no change over period under review). ESG3
Performance Objective <i>Benchmark +3-4% p.a.</i>	<span style="color: orange;">●</span> Outperformed benchmark by 0.8% p.a. over three years
Three year tracking error was 4.2% p.a. – <i>source: Mercer</i>	Number of stocks: 46

### Manager Research and Developments

- TT underperformed their benchmark by 1.4% over the quarter and by 5.4% over the year, but outperformed by 0.8% over the three year period to 31 December 2016. This is now the fourth straight quarter of underperformance.
- This underperformance over the quarter was largely due to sector allocation. The fund underperformed from being underweight Financials and from being overweight Consumer Goods and Telecoms. Stock selection in the Basic Materials sector also contributed to underperformance, detracting 0.4%. The fund suffered by not holding Barclays and HSBC early in the quarter. Both banks performed well due to their significant non-sterling earnings.
- Turnover increased from 24.1% in Q3 to 32.3% in Q4 2016 while the three year tracking error (a proxy for risk relative to benchmark) decreased to 4.2% p.a.
- Assets under management in TT's UK equity strategies increased over the quarter to £582m in light of positive returns; this consists of the assets of TT's pooled fund and three segregated accounts (one of which being the Fund's holdings). This compares to £568m in September 2016, £526m in December 2015 and £562m in December 2013. A significant portion (c.40%) of the firm's UK equity assets are managed on behalf of the Fund.

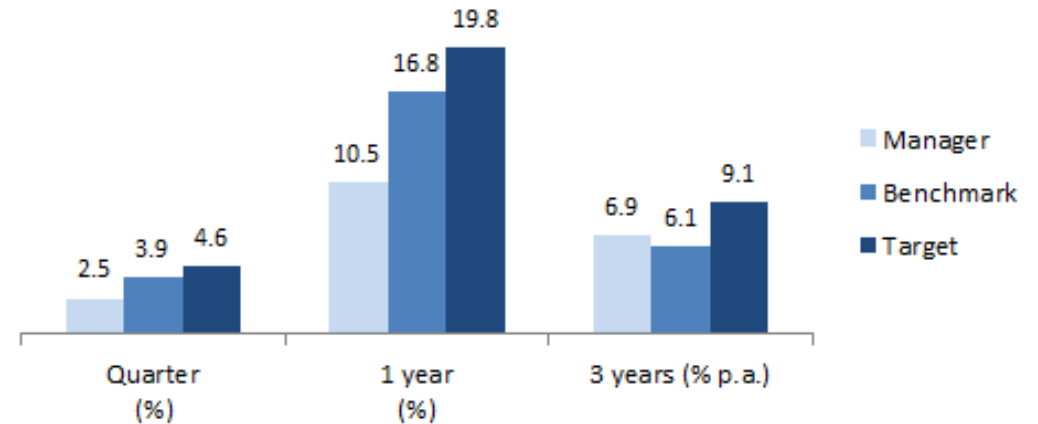
### Reason for investment

To provide asset growth as part of a diversified equity portfolio

### Reason for manager

- Favoured the partnership structure that aligns manager's and Fund's interests
- Focussed investment activity and manages its capacity
- Clear, robust stock selection and portfolio construction

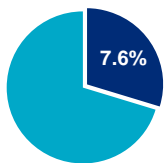
### Performance



### Rolling relative returns

Quarterly Excess Return vs. FTSE All Share with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# SCHRODER – GLOBAL EQUITY PORTFOLIO (SEGREGATED)

## £317.9M END VALUE (£301.5M START VALUE)

### Item Monitored Outcome

Mercer Rating	<span style="color: green;">●</span> B+ (no change over period under review). ESG2
Performance Objective <i>Benchmark +4% p.a.</i>	<span style="color: red;">●</span> Underperformed benchmark by 0.9% p.a. over three years

Three year tracking error was 2.6% p.a. – *source: Mercer*

### Manager Research and Developments

- The fund has underperformed the benchmark over the quarter, largely through stock selection in IT, energy and industrials (all detracting 0.3%). However the strong performance of “value” stocks was the main reason behind the underperformance as the portfolio had a bias towards “growth” stocks.
- Top detractors over the quarter were Medtronic (a medical technology, services, and solutions firm) and KDDI Corporation (a Japanese telecom operator). Citigroup and JPMorgan were the most significant contributors to returns.
- The tracking error remained stable at 2.6% p.a. over the quarter.
- The fund was behind benchmark performance over the one year and three year periods.

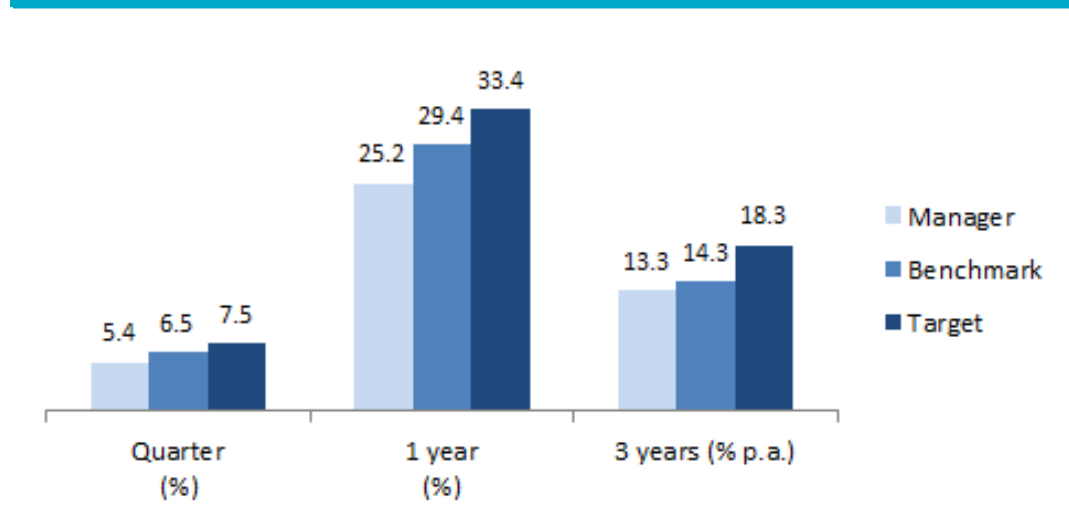
### Reason for investment

To provide asset growth as part of a diversified equity portfolio

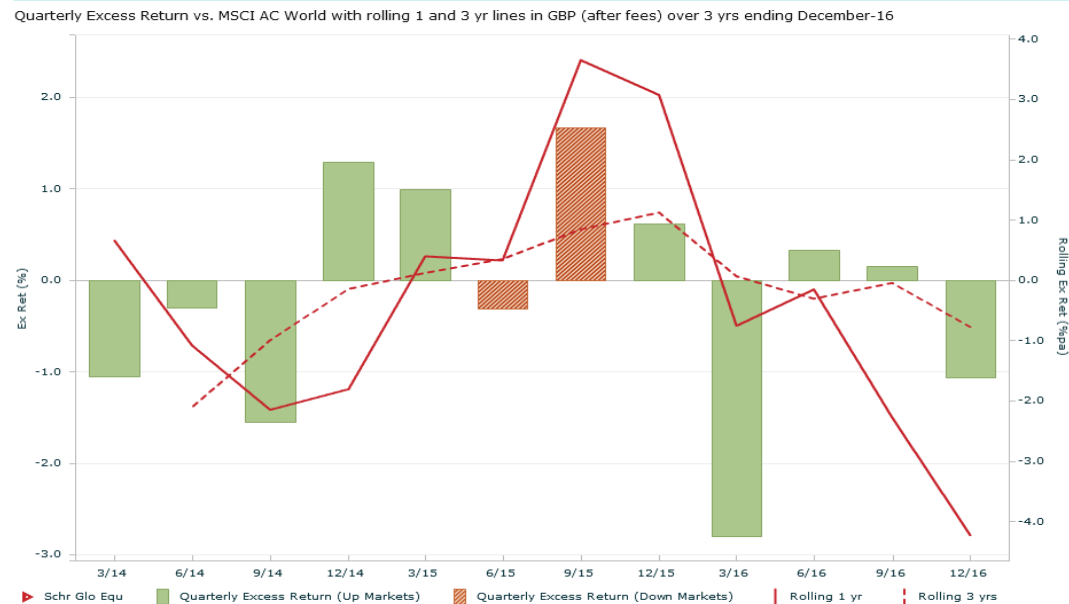
### Reason for manager

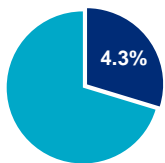
- Clear philosophy and approach
- Long term philosophy aligned with Fund’s goals, commitment to incorporating ESG principles throughout the investment process
- Evidence of ability to achieve the Fund’s performance target

### Performance



### Rolling relative returns





# GENESIS ASSET MANAGERS – EMERGING MARKET EQUITIES (POOLED)

£181.6M END VALUE (£179.2M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: green;">●</span> A (no change over period under review). ESG3
Performance Objective <i>Benchmark</i>	<span style="color: red;">●</span> Underperformed benchmark by 0.2% p.a. over three years
Three year tracking error was 3.8% p.a. – <i>source: Genesis</i>	Number of stocks: 128

## Manager Research and Developments

- The fund has outperformed its benchmark over the quarter, although longer term returns remain marginally below benchmark. On a regional basis, China and Russia were the biggest contributors to outperformance over the quarter, whilst Brazil and Turkey detracted the most.
- The biggest contributors at a stock level were the overweight holdings in Russian companies Novatek and Sberbank and in the Indian IT services firm Cognizant.
- Turnover over the quarter was 29%.

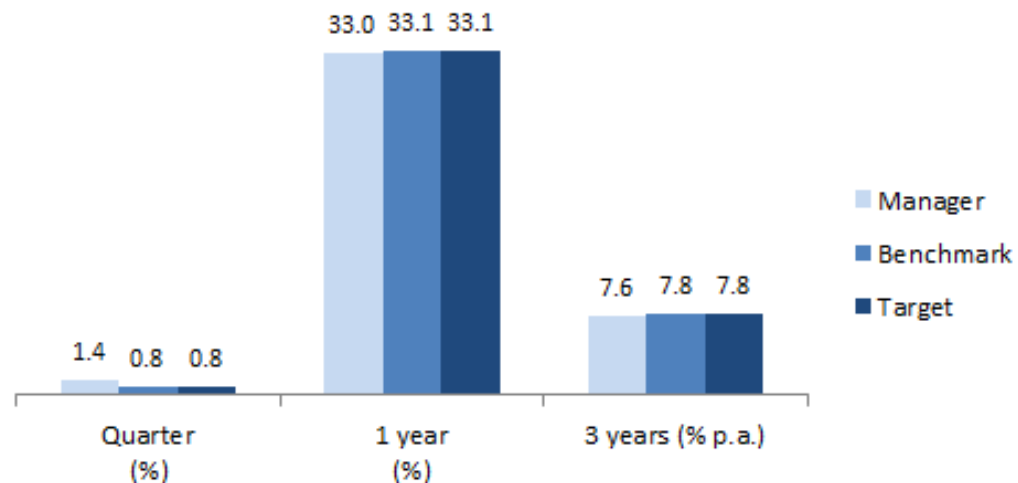
## Reason for investment

To provide asset growth as part of a diversified equity portfolio

## Reason for manager

- Long term investment approach which takes advantage of evolving growth opportunities
- Niche and focussed expertise in emerging markets
- Partnership structure aligned to delivering performance rather than growing assets under management

## Performance

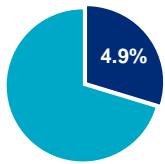


## Rolling relative returns

Quarterly Excess Return vs. MSCI EM with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16







# UNIGESTION – EMERGING MARKET EQUITIES (POOLED – SUB-FUND)

£203.4M END VALUE (£206.1M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> R (no change over period under review)
Performance Objective Benchmark +2-4% p.a.	<span style="color: red;">●</span> Underperformed benchmark by 1.3% p.a. over three years
Tracking error since inception was 6.0% p.a. – source: Unigestion	Number of stocks: 96

## Manager Research and Developments

- The fund has underperformed by 2.0% over the quarter, by 7.8% over the year and by 1.3% p.a. over the three years to 31 December 2016.
- The fund underperformed in every month of the quarter. In October, the overweight to Consumer Durables and Telecoms as well as the underweight to Energy detracted from relative performance. In November, the underweight to Technology detracted as this industry was the best performer over that period. Finally, in December, the underweight to Energy weighed on performance.
- This compounded the significant underperformance in Q3 2016 which occurred in July and August. In July, performance detracted due to an underweight position in risky and cyclical industries as these rebounded over the month. In August, cyclical low quality industries performed well while defensive industries were amid the worst performers. As the fund allocates to higher quality stocks, this led to underperformance over the month.
- Volatility since inception is 15.0%, lower than the index (at 18.0%) and consistent with the strategy's objectives (and bias to quality and large- or mega-cap stocks).

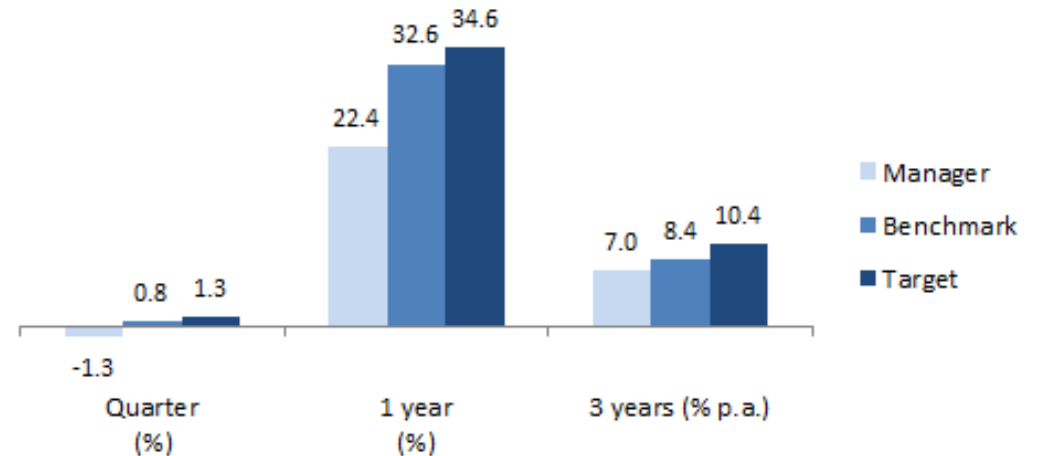
## Reason for investment

To provide asset growth as part of a diversified equity portfolio

## Reason for manager

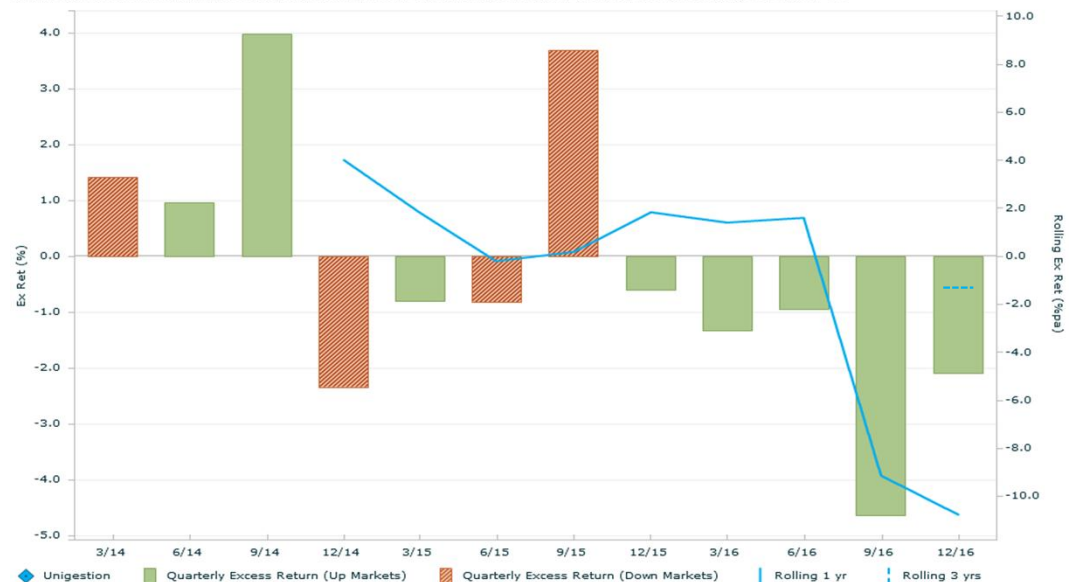
- Risk-based active management approach
- Aim for lower volatility than the MSCI Emerging Markets Index
- Combine fundamental and quantitative analysis

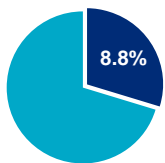
## Performance



## Rolling relative returns

Quarterly Excess Return vs. MSCI EM with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# INVESCO – GLOBAL EX-UK EQUITIES (ENHANCED INDEXATION) (POOLED)

£370.9M END VALUE (£337.8M START VALUE)

Item Monitored	Outcome
Mercer Rating	● B+ (no change over period under review). ESG4
Performance Objective <i>Benchmark +0.5% p.a.</i>	● Outperformed benchmark by 0.8% p.a. over three years
Tracking error since inception was 1.5% p.a. – <i>source: Invesco</i>	Number of stocks: 474 (up from 469)

## Manager Research and Developments

- The fund has outperformed its benchmark by 2.3% over the last quarter, by 1.1% over the year and by 0.8% p.a. over the three year period. As such, the fund is above the performance target over all periods measured.
- Outperformance over the quarter was largely due to stock selection in November. Over that month, the overweight in stocks with attractive Management & Quality and Value scores contributed the most to relative performance.
- All sector and country allocations were broadly within +/- 1.0% of benchmark weightings, in line with general expectations for an enhanced indexation product, except a significant overweight in industrials of 1.2% and an underweight in US stocks of 3%.

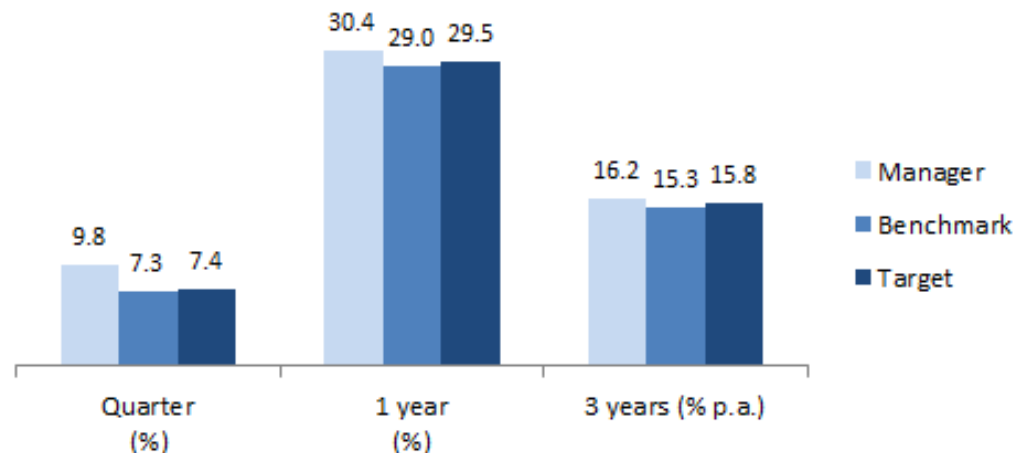
## Reason for investment

To provide asset growth as part of a diversified equity portfolio

## Reason for manager

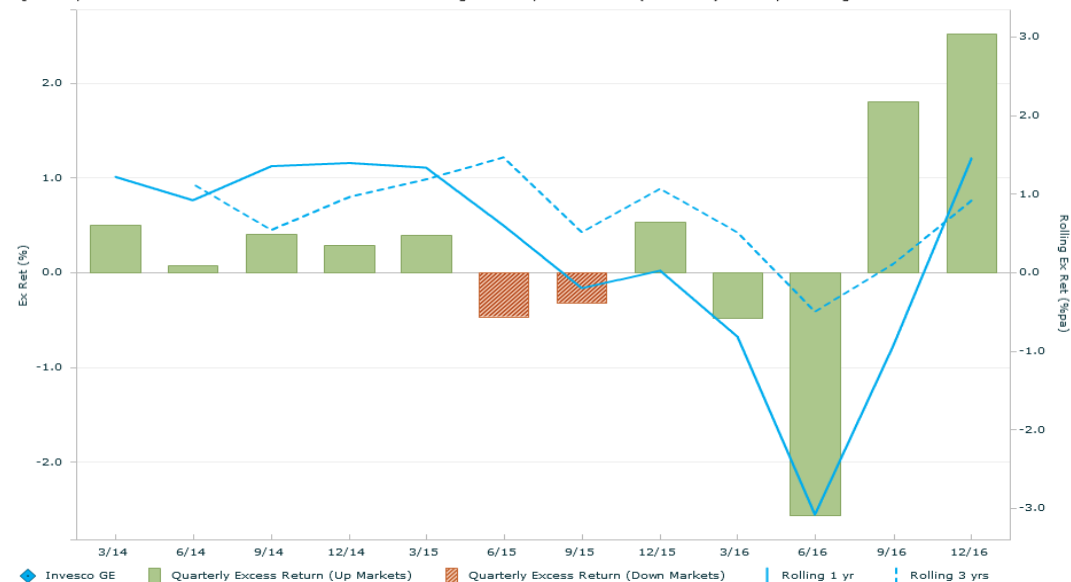
- Robust investment process supported by historical performance record, providing a high level of assurance that the process could generate the outperformance target on a consistent basis
- One of few to offer a Global ex UK pooled fund

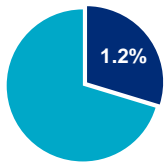
## Performance



## Rolling relative returns

Quarterly Excess Return vs. MSCI World ex UK NDR with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# SSGA – EUROPE EX-UK EQUITIES (ENHANCED INDEXATION) (POOLED)

## £51.6M END VALUE (£48.8M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> R (no change over period under review)
Performance Objective <i>Benchmark +0.5% p.a.</i>	<span style="color: green;">●</span> Outperformed benchmark by 0.8% p.a. over three years
Three year tracking error was 0.8% p.a. – <i>source: Mercer</i>	Number of stocks: 234

### Manager Research and Developments

- The fund achieved its performance target over the three year period.
- The total pooled fund size on 31 December 2016 was £51.7m. This means that the Fund is practically the only investor, although the Panel has previously concluded that the Fund could be sustained even if the Avon Pension Fund was the only investor.
- The fund holds 234 out of 397 stocks in the index, around 60%, within the expected range of 35-65%. Beta over three years is as expected at 1.

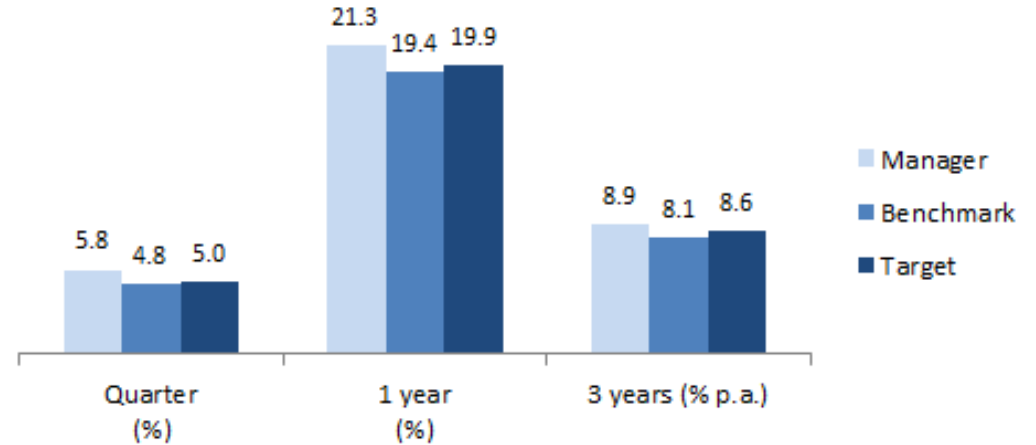
### Reason for investment

To provide asset growth as part of a diversified equity portfolio

### Reason for manager

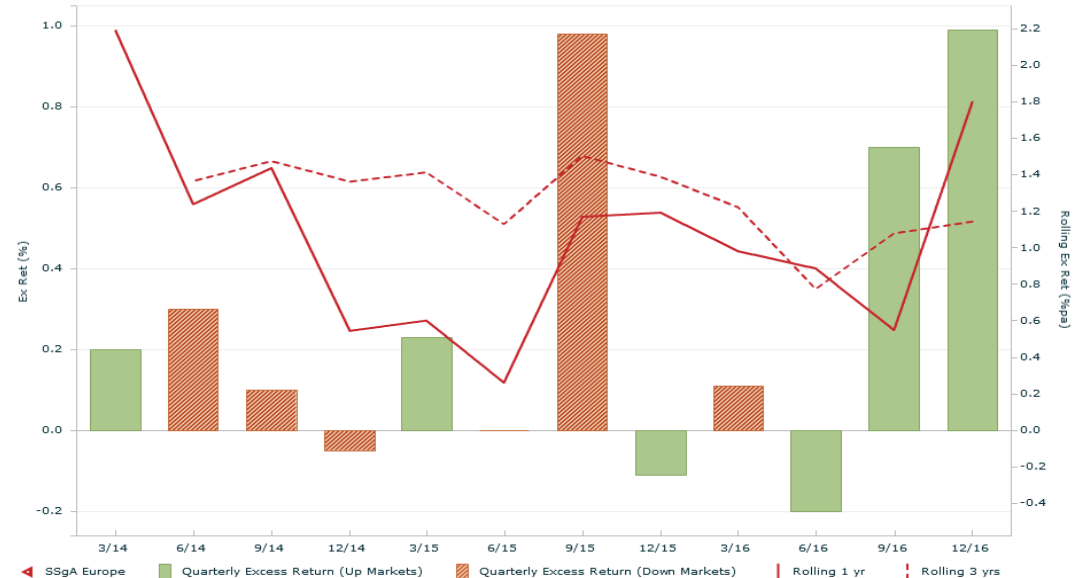
- Strength of their quantitative model and process, and ongoing research to develop the model
- Historic performance met the risk return parameters the Fund was seeking
- Two Funds (European and Pacific) to achieve the Fund's customised asset allocation within overseas equities

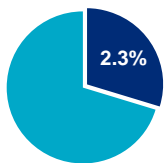
### Performance



### Rolling relative returns

Quarterly Excess Return vs. Europe ex UK (WM) with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# SSGA – PACIFIC INC. JAPAN EQUITIES (ENHANCED INDEXATION) (POOLED)

£97.9M END VALUE (£93.6M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> N (no change over period under review)
Performance Objective <i>Benchmark +0.5% p.a.</i>	<span style="color: green;">●</span> Outperformed benchmark by 1.0% p.a. over three years
Three year tracking error was 1.0% p.a. – <i>source: Mercer</i>	Number of stocks: 398

## Manager Research and Developments

- The fund achieved its performance target over the three year period.
- The total pooled fund size on 31 December 2016 was £98.1m. As with the European fund, the conclusion has been that the Fund could be sustained even with the Avon Pension Fund as the only investor.
- As with the European fund, Beta is around 1 (i.e. broadly in line with a market cap approach).

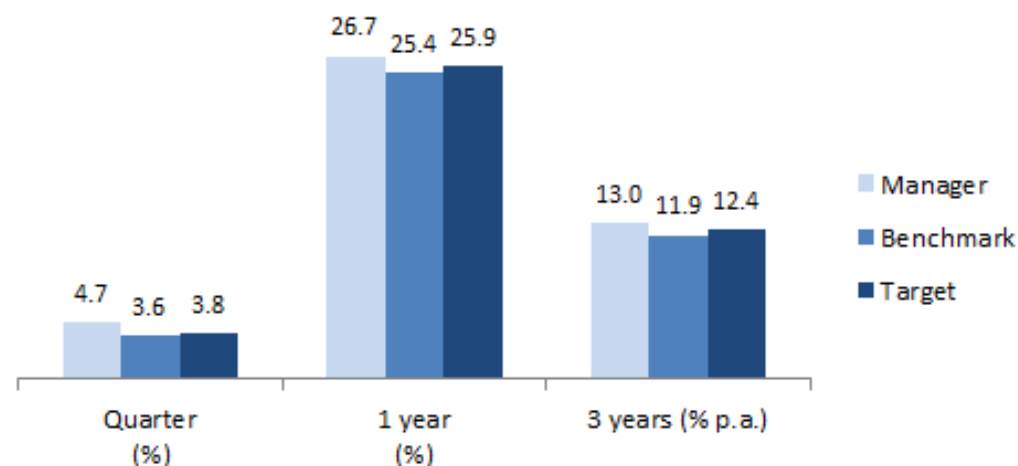
## Reason for investment

To provide asset growth as part of a diversified equity portfolio

## Reason for manager

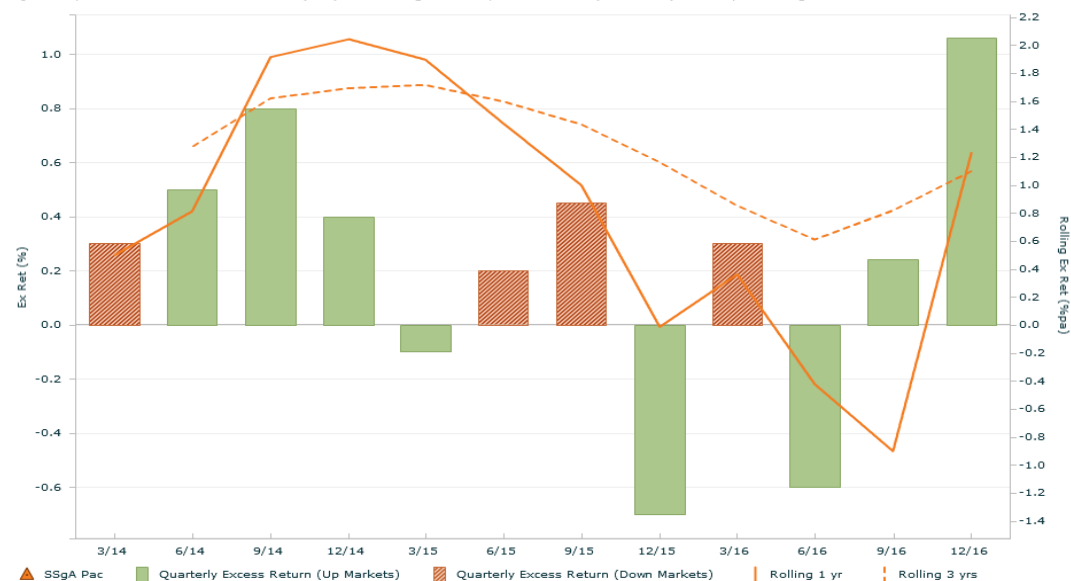
- Strength of their quantitative model and process, and ongoing research to develop the model
- Historic performance met the risk return parameters the Fund was seeking
- Two Funds (European and Pacific) to achieve the Fund's customised asset allocation within overseas equities

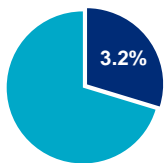
## Performance



## Rolling relative returns

Quarterly Excess Return vs. Asia Pacific (WM) with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16





# PYRFORD – DGF (POOLED)

## £136.1M END VALUE (£135.2M START VALUE)

### Item Monitored Outcome

Mercer Rating	● R (no change over period under review)
Performance Objective RPI +5% p.a.	● Underperformed objective by 0.9% p.a. over three years

### Manager Research and Developments

- The fund has underperformed its objective (RPI + 5% p.a.) over the quarter by 1.4% but outperformed by 2.7% over the year. Over three years, the fund was below the performance objective.
- The portfolio's overseas equities provided the main source of return over the quarter aided by a weaker sterling, while UK equities detracted. In a rising yield environment, the portfolio's UK bonds performance was flat due to the short duration positioning of the portfolio as longer duration bonds saw negative returns. Despite the challenges in the fixed income market, the portfolio's overseas bonds delivered positive performance over the quarter.
- Performance over 2016 was strong in absolute terms and relative to benchmark. While this may appear to be due to asset allocation, a large proportion of this was due to the depreciation of sterling over the year. Going into the UK Referendum, only the Swiss Franc exposure was hedged so the portfolio's overseas assets benefitted significantly from sterling weakness. Since then Pyrford have reduced exposure to non-sterling assets by over 50% by selling all US government bonds and hedging exposure to the Aussie dollar.
- The fund's allocation remained broadly the same, after Pyrford decided to decrease exposure to equities and increase bond exposure in Q3.
- Pyrford continues to adopt a defensive stance by owning short duration securities in order to protect the capital value of the portfolio from expected rises in yields. At the end of the quarter the modified duration of the fixed income portfolio stood at 1.7 years.

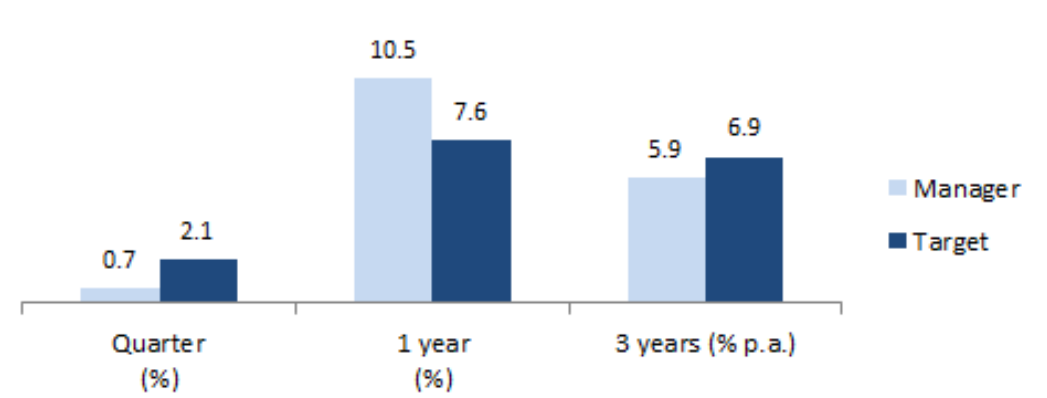
### Reason for investment

To provide equity like return over the long term but with a lower level of volatility

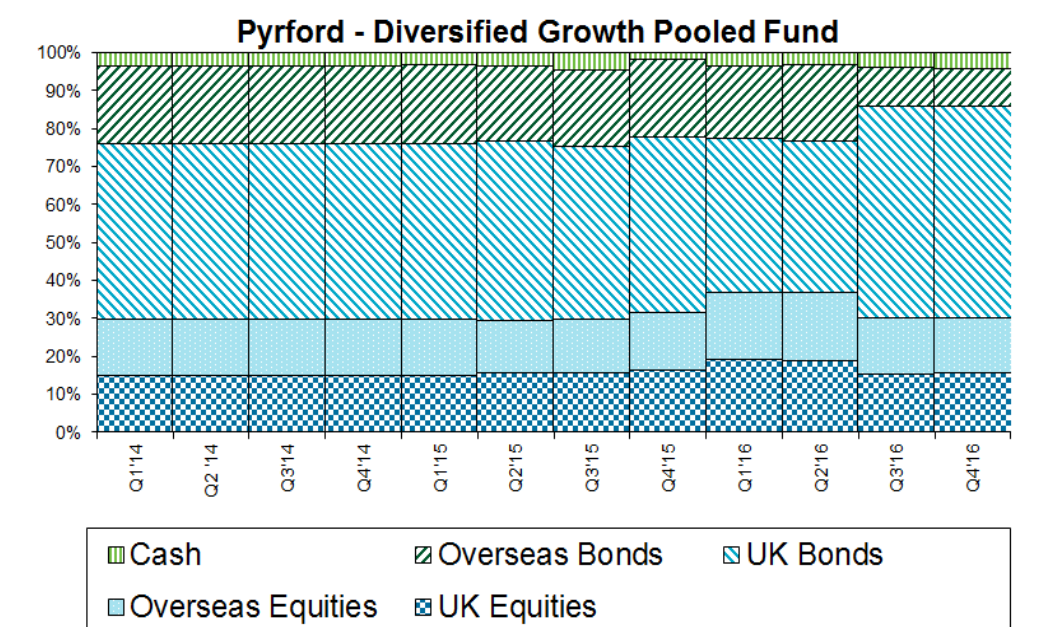
### Reason for manager

- Asset allocation skill between equities, bonds and cash
- Fundamental approach to stock selection

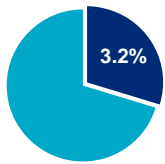
### Performance



### Asset Allocation



Annual data prior to Q1 2015.



## PYRFORD – DGF (POOLED) £136.1M END VALUE (£135.2M START VALUE)

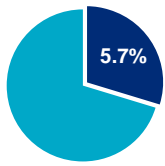
### Research meeting with Pyrford

In December 2016, our researchers met with Pyrford for an initial discussion on their DGF, which we have not previously researched.

Our initial view is that the narrative behind the strategy is easy to understand and has intuitive appeal. However, we feel the process is overly simplistic compared to best-in-class peers, especially in the approach to asset allocation. The key selling points from Pyrford are that they performed well over the financial crisis and the equity stock selection process (which is further explained below). In our view the manager's stock selection capabilities are above average but not our highest conviction. Coupled with a sense that the asset allocation process could work harder to add value, this strategy is unlikely to be awarded our highest rating, albeit we may conclude it is above average. A full Research Report will follow in due course, but in the interim, we believe an R rating remains appropriate.

Below are the highlights of the meeting:

- § **Simplistic value approach to asset allocation** – although this means the process is easy to understand, it is relatively unsophisticated and narrow in our view. Pyrford's top-down views are based on five year forecasts and currency positions on a purchasing power parity (PPP) model. The main decisions are splits between cash, government bonds and equities (credit is not currently considered for investment). The duration of the bond portfolio is also an important decision. The PPP model in particular appears naïve compared to other active currency processes. Overall, the approach means that resulting asset allocation will be “episodic”, with infrequent, large changes. We note there have been no major changes since the 2008 crisis (and indeed nearly all the case studies presented to our researchers at the meeting were 2008/09 examples).
- § **Above average stock selection process** – the equity portfolio broadly follows the manager's standalone global equity strategy, which we regard as above average but not one of the strategies in which we have our highest degree of conviction. Country weights within equities are set by the Investment Strategy Committee which comprises five key investment professionals; portfolio managers are then responsible for filling these buckets with stocks. We feel this approach could lead to suboptimal results and unintended sector biases in equity portfolios. Additionally, there is a client-domicile bias in the equity portfolio (i.e. UK bias for UK clients) which is questionable in our view.
- § **Liquid strategy with large capacity** – at present there are no capacity constraints and the manager only invests in liquid securities. We note that the strategy is long-only and there is no use of derivatives other than for currency hedging purposes..
- § **Supportive and "hands-off" parent** – the relationship with Bank of Montreal (BMO) appears to work fairly well with sufficient independence for Pyrford.
- § **Current positioning is very defensive and unlikely to meet objectives** – the strategy targets a return of RPI + 5% p.a. The current asset allocation and assumptions for returns are unlikely to meet this unless there is a significant contribution from equity stock selection.



# STANDARD LIFE – DGF (POOLED)

## £237.2M END VALUE (£233.4M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> B+ (W) (no change over period under review). ESG4
Performance Objective Cash +5% p.a.	<span style="color: red;">●</span> Underperformed objective by 7.0% p.a. over the year

### Manager Research and Developments

- Over the quarter the fund returned 1.6% against a performance objective of 1.4%, and returned -1.8% against an objective of 5.6% over the year.
- Exposures to US and European equities performed well following Donald Trump's election and the anticipation that a Trump administration would implement fiscal stimulus measures – corporate and personal income tax cuts, along with defence and infrastructure spending.
- The US dollar regained momentum at the prospect of higher economic growth and tighter monetary policy. The dollar strengthened against most major currencies over the quarter and, as a consequence, the portfolio's strategies favouring the US dollar versus the euro and the Singapore dollar were among the best performers.
- Standard Life has appointed Archie Struthers to the role of Head of Investments. He joined Standard Life in January from Aberdeen Asset Management, where he was Global Head of Investment Solutions. Struthers will report to Rod Paris, Chief Investment Officer, with responsibility for investment governance, the investment operating platform, MyFolio and derivatives counterparty management. Struthers will assume the responsibilities of Bill Lambert who is retiring in March 2017.

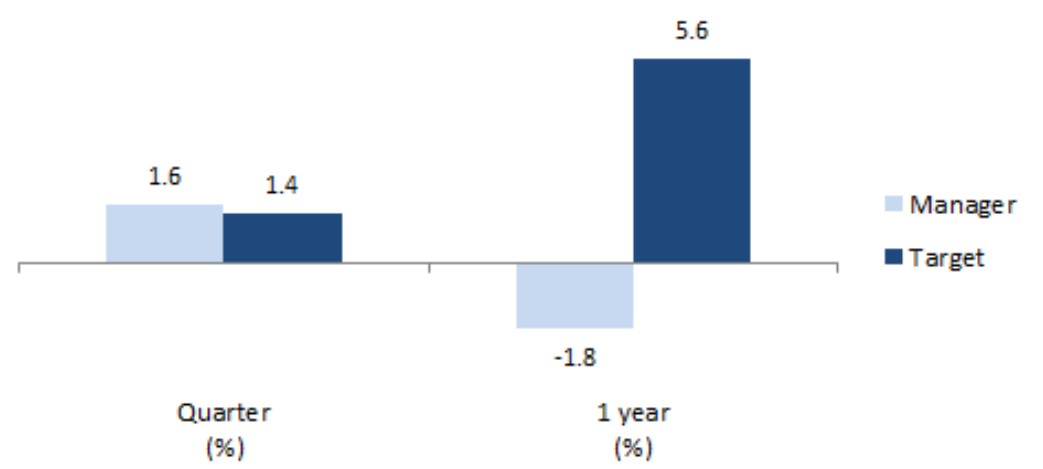
### Reason for investment

To provide equity like return over the long term but with a lower level of volatility

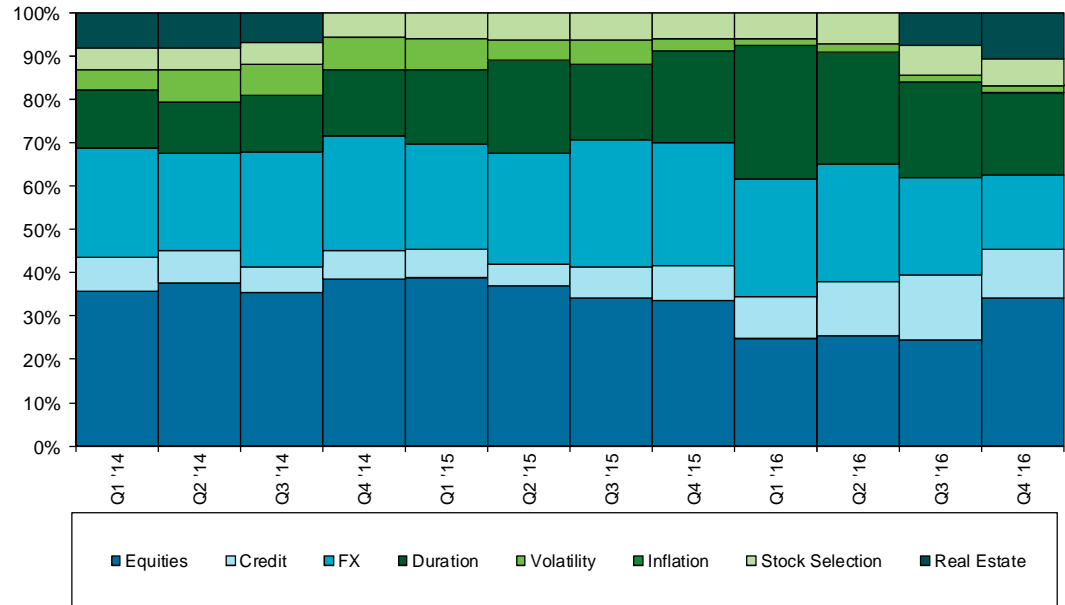
### Reason for manager

- Diversification from equities
- Exposure to relative value strategies and different approach to Pyrford's largely static asset allocation investment strategy

### Performance



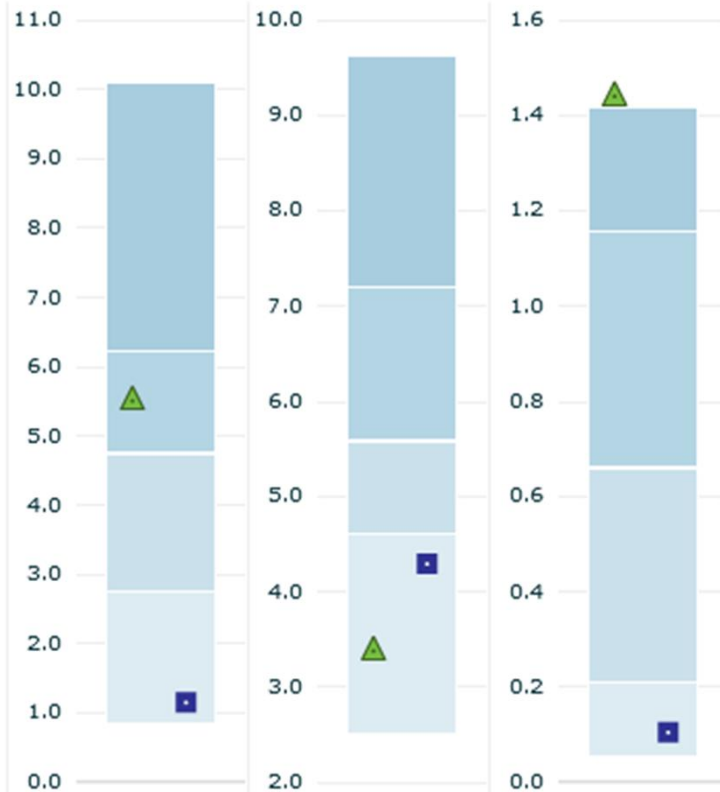
### Asset Allocation/Risk Exposure



# DGF MANDATES

Performance characteristics vs. BofAML LIBOR 6 month average UK in GBP (after fees) over 3 yrs ending December-16

Comparison with the International Multi-asset GBP (Net) universe (Actual Ranking) (quarterly calculations)

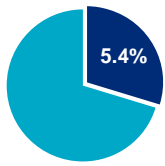


	Ret (%pa)	Std Dev (%pa)	IR
▲ Pyrford DGF	5.5 (14)	3.4 (34)	1.4 (3)
■ SLI GARS	1.2 (32)	4.3 (30)	0.1 (32)
95th Percentile	10.1	9.6	1.4
Upper Quartile	6.2	7.2	1.2
Median	4.8	5.6	0.7
Lower Quartile	2.8	4.6	0.2
5th Percentile	0.8	2.5	0.1
Number	37	37	37

## Commentary

- Over the three years to 31 December 2016, the Standard Life GARS pooled fund significantly underperformed Pyrford by 4.3% p.a.
- This placed Pyrford above the median of the DGF universe for performance. On the other hand, Standard Life was in the lower quartile of the universe. It should be noted that this universe is very diverse in styles.
- This performance was achieved with relatively similar levels of volatility, with Pyrford's volatility standing at 3.4% p.a. against Standard Life's 4.3% p.a.
- Both managers were in the lower quartile for volatility, meaning they were less volatile than most managers in the universe.
- The information ratio (a measure of risk adjusted returns) for Pyrford was the third highest of the universe and for Standard Life was in the lower quartile.
- The information ratio (IR) measures the amount of 'information' that the manager can extract from the market. Expressed in another way this is the amount of excess return generated per unit of risk or tracking error added. The IR is therefore a measure of the skill of the manager. If the IR is large and it is measured over a reasonable period of time, then this is an indication that the manager has some skill in managing money. Mercer defines the IR as the annualised excess return divided by the annualised tracking error.





# JP MORGAN – FUND OF HEDGE FUNDS

## £225.9M END VALUE (£211.0M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: green;">●</span> B+ (no change over period under review). ESG4
Performance Objective <i>Cash +3% p.a.</i>	<span style="color: red;">●</span> Outperformed target by 0.9% over the quarter (in USD) Underperformed target by 2.3% over the year (in USD)

Item	
Number of funds	32 (as of December 2016)

Strategy	Contribution to Performance over the Quarter in USD (%)
Relative Value	0.75
Opportunistic/Macro	0.53
Long/Short Equities	0.35
Merger Arbitrage/Event Driven	0.18
Credit	0.20
<b>Total</b>	<b>1.86 (including cash and fees)</b>

### Reason for investment

To reduce volatility of the Growth portfolio and increase diversification

### Reason for manager

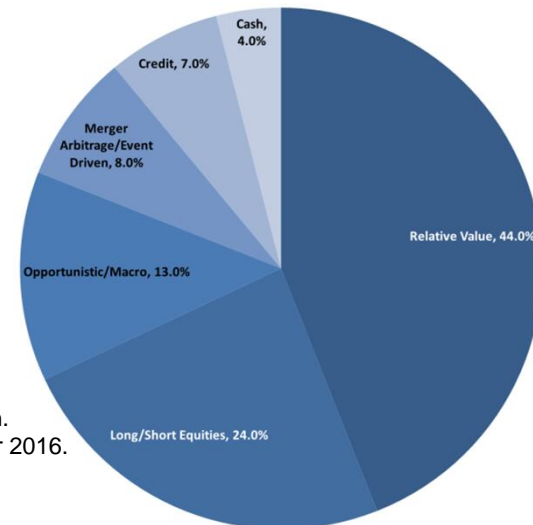
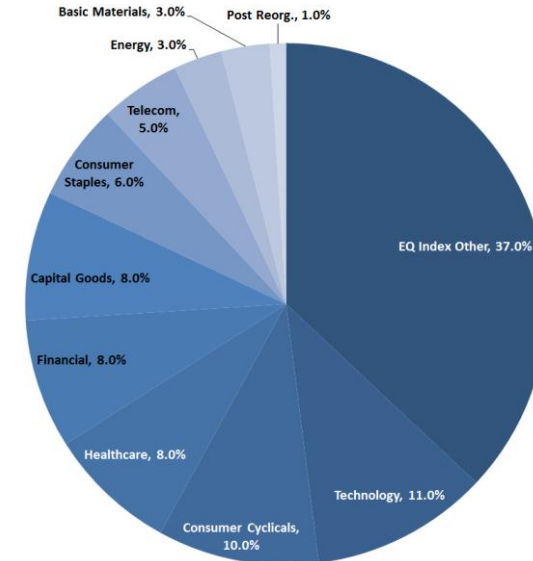
- Niche market neutral investment strategy
- Established team with strong track record
- Complemented other funds in the portfolio

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### Performance (GBP, JP Morgan return converted from USD)

Last Quarter	7.1%	Target	0.8%
Last Year	21.1%	Target	3.5%

### Portfolio Composition and Equity Sector Allocation



Source: JP Morgan.  
As at 31 December 2016.

# HEDGE FUND COMMENTARY – Q4 2016

- Hedge funds produced reasonably solid gains for the fourth quarter of 2016. The HFRI Index gained 1.6%, the HFRX Index returned 1.2%, and the Credit Suisse Hedge Fund Index earned 1.1% (USD returns).
- Hedge funds generally kept pace with equities over the period and outperformed a “naïve 60/40 portfolio”, given the sharp pullback in fixed income. For the year, most underlying hedge fund strategies posted positive results, with systematic macro the lone exception.
- Despite continued investor outflows, total hedge fund industry assets reached all time highs, surpassing \$3 trillion for the first time, as performance gains outweighed negative investor sentiment. For the year, investors pulled roughly \$70 billion from hedge funds, representing only the fourth calendar year since 1990 in which the industry experienced net redemptions. However, this figure represents just slightly over 2% of industry assets.
- Outflows during the year continued to be concentrated in the industry’s largest managers, with firms greater than \$1 billion in assets representing nearly all of the year’s redemptions.

Returns are in USD. Source: Source: Credit Suisse Hedge Index LLC.

# HEDGE FUND COMMENTARY – Q4 2016

## Relative Value (44%)

- Fixed Income and Convertible Arbitrage strategies gained 1.8% and 0.4%, respectively, during the fourth quarter of 2016.
- Relative value and arbitrage-oriented strategies earned modest results for the year. Overall balanced positioning served to protect capital during difficult market environments (Jan-Feb), yet post moderate results during more directional periods (Mar-Dec).
- Fixed income and convertible-focused strategies benefitted from relatively favorable conditions, with rate and yield curve volatility being a key driver for fixed income strategies.

## Long/Short Equities (24%)

- Long/Short Equity declined 0.2% in Q4, while Equity Market Neutral strategies lost 2.6% in the quarter.
- Dispersion amongst Long/Short Equity was extreme for 2016, though performance generally rebounded well following a dismal Q1. Importantly, we witnessed improved levels of overall market dispersion and security selection fundamentals, leading to stronger single name alpha generation on both long and short positions. Many popular hedge fund holdings, which were punished earlier in the year, rebounded significantly following Q1.

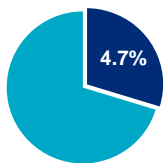
## Opportunistic / Macro (13%)

- The broad Global Macro universe gained 4.6% during the quarter, while Managed Futures declined 5.7%.
- The broad universe of Macro strategies had mixed results in 2016. Discretionary strategies eked out a positive return, largely driven by strong trends in USD and rates following the US Presidential election.
- Systematic, trend-following strategies provided ballast during difficult periods throughout the year, but struggled somewhat overall.

## Merger Arbitrage / Event Driven (8%)

- The Event space posted healthy results for the fourth quarter overall, returning 2.3%.
- Following a poor Q1, many portfolios rebounded as progress in many distressed, restructuring and liquidation situations (e.g. Lehman and Caesars) contributed to results. Particularly strong performance from many energy-related credits, following a selloff in 2015 and early 2016, added to performance for many portfolios.
- For merger-oriented strategies, despite a continued surge in volume and attractive deal spreads, portfolios generally produced lackluster results for the year, driven in part by a period of heightened regulatory scrutiny and a handful of large deal breaks (Allergan/Pfizer had the most impact).

Returns are in USD. Source: Source: Credit Suisse Hedge Index LLC.



# SCHRODER – UK PROPERTY FUND OF FUNDS

## £197.4M END VALUE (£194.2M START VALUE)

### Item Monitored Outcome

Mercer Rating ● B (no change over period under review). ESG3

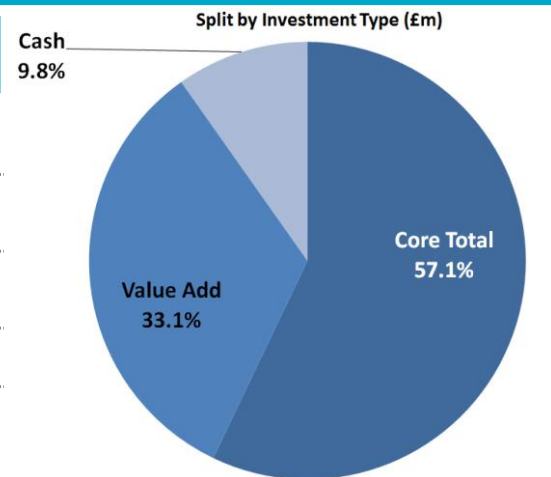
Performance Objective ● Underperformed benchmark by 0.2% p.a. over three years (and was below the performance target over five years)  
*Benchmark +1% p.a.*

### Manager Research and Developments

- The fund has underperformed the benchmark over the quarter by 0.5%, mainly as a result of transaction costs. Value Add funds, Core funds and cash all detracted from performance. The West End of London Property Unit Trust was the largest detractor following partial sales at discount to value and further valuation falls.
- Over the five year period, the fund has outperformed its benchmark by 0.5% p.a., largely due to performance from Value Add strategies.
- Over the quarter, there were c. £4.1m of purchases and c. £12.5m of sales. Units were acquired in Local Retail Fund (c. £1.8m), Multi-Let Industrial Property Unit Trust (c. £1.6m) and Metro Property Unit Trust (c. £0.6m). Further units were sold in the West End of London Property Unit Trust (c. £6.0m). Redemption proceeds were received from Aviva Investors Pensions Property Fund (c. £6.4m).

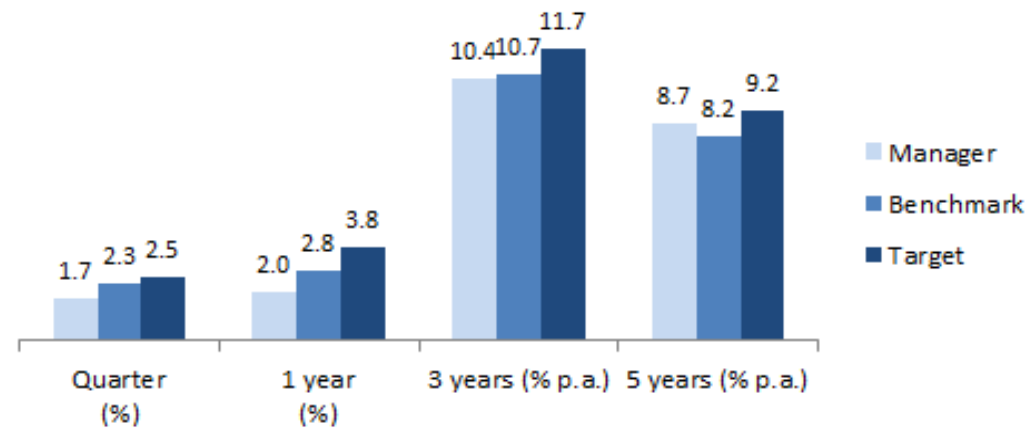
### Manager and Investment type splits

Top 5 Holdings	Proportion of Total Fund (%)
L&G Managed Property Fund	13.0
BlackRock UK Property Fund	12.6
Industrial Property Investment Fund	11.7
GBP Cash	9.6
Schroder Real Estate Real Income Fund	8.6

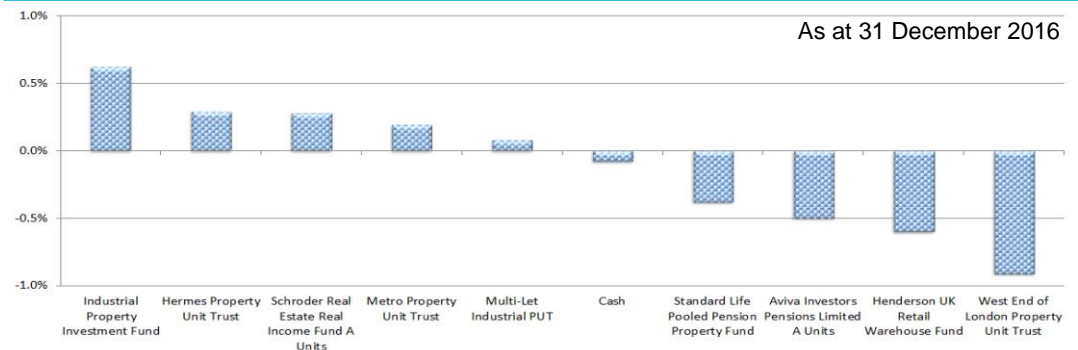


As at 31 December 2016

### Performance



### Top 5 Contributing and Detracting Funds over 12 Months

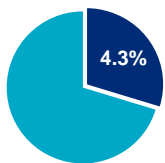


### Reason for investment

To reduce volatility of the Growth portfolio and increase diversification

### Reason for manager

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



# PARTNERS – OVERSEAS PROPERTY

## £181.7M\* END VALUE (£188.1M START VALUE)

\* End value is an estimate based on the start value and contributions and distributions during the quarter.

### Item Monitored Outcome

Mercer Rating ● B+ (no change over period under review). ESG4

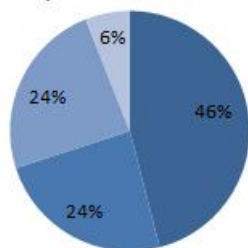
Performance Objective ● IRR since inception to 30 September 2016 at 8.0% p.a. (in local currency) is below target of 10% p.a.

### Manager Research and Developments (Q3 2016)

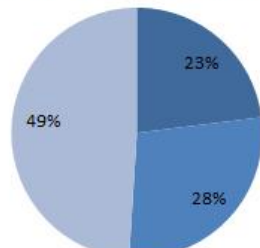
- The portfolio delivered a net return of -3.8% over Q3 2016 for USD programmes in local currency, and -0.1% for EUR programmes, versus the target of c. 2.5%.
- Partners' drawdowns are made gradually over time, and the Fund is not yet fully invested. As a result of the volatile timing of cash flows for such investments, for example the initial costs of purchasing and developing properties, focus should be on longer term performance. Their IRR from inception to 30 September 2016 at 8.0% p.a. (in local currency) is below their target of 10% p.a.; over the year to date to 30 September 2016 IRR was c. 2.6% (Mercer estimate, in local currency terms).
- Over Q3, the allocation to Europe decreased (from 47% to 46%), with North America increasing (from 21% to 24%) and Asia Pacific decreasing (from 26% to 24%). These remain within the guidelines.
- Note that Partners are rated B+ for global real estate, but A for secondary global real estate (as a result of their private equity skill set).

### Geographical and Investment type splits as at 30 September 2016

Geographical Split Based on Net Asset Value



Investment Type Split Based on Net Asset Value



■ Europe (10% - 50%)   
 ■ North America (10% - 50%)   
 ■ Direct (0% - 30%)   
 ■ Primary (40% - 100%)  
■ Asia Pacific (10% - 50%)   
 ■ Rest of World (0% - 20%)   
 ■ Secondary (0% - 50%)

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### Portfolio update as at 30 September 2016

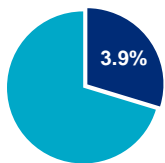
Partners Fund	Total Drawn Down (£m)	Total Distributions (£m)	Net Asset Value (£m)	Since Inception Net IRR (local currency)
Global Real Estate 2008	31.49	20.29	20.83	6.7
Real Estate Secondary 2009	19.64	8.29	20.99	11.0
Asia Pacific and Emerging Market Real Estate 2009	17.71	9.76	13.26	4.2
Distressed US Real Estate 2009	14.36	15.12	7.52	9.6
Global Real Estate 2011	25.13	10.05	25.81	11.0
Direct Real Estate 2011	11.20	6.67	10.56	8.8
Real Estate Secondary 2013	7.43	1.03	11.11	23.6
Global Real Estate 2013	52.40	2.58	58.19	3.7
Real Estate Income 2014	13.26	0.75	14.64	1.4
Asia Pacific Real Estate 2016	3.32	0.00	4.85	n/a
<b>Total</b>	<b>195.95</b>	<b>74.55</b>	<b>187.75</b>	<b>8.0</b>

### Reason for investment

To reduce volatility of the Growth portfolio and increase diversification

### Reason for manager

- Depth of experience in global property investment and the resources they committed globally to the asset class
- The preferred structure for the portfolio was via a bespoke fund of funds (or private account) so the investment could be more tailored to the Fund's requirements



# IFM – INFRASTRUCTURE (POOLED)

## £161.5M END VALUE (£153.8M START VALUE)

### Item Monitored Outcome

Mercer Rating	● B+ (no change over period under review). ESG2
Performance Objective 6 month LIBOR + 2.5% p.a.	● Underperformed benchmark by 0.8% over the quarter

### Item

Number of holdings	12
--------------------	----

### Manager Research and Developments

- Over the quarter the fund returned -0.1% in US Dollar terms, against Avon’s performance objective of 0.7% (cash + 2.5% p.a.). IRR since inception on 1 June 2016 is negative, but it is still early in the life of the fund.
- There were no drawdowns over the quarter; the Fund has a remaining undrawn commitment of \$105m.
- The strategy invested a further \$76m in Freeport Train 2, a gas processing site in Texas, following an equity drawdown true up, and \$1m in Vienna Airport through the open market.
- The fund also received income of \$48m over the quarter, with significant dividend distributions from Manchester Airport and Conmex (a Mexican firm responsible for the operation of a toll road).

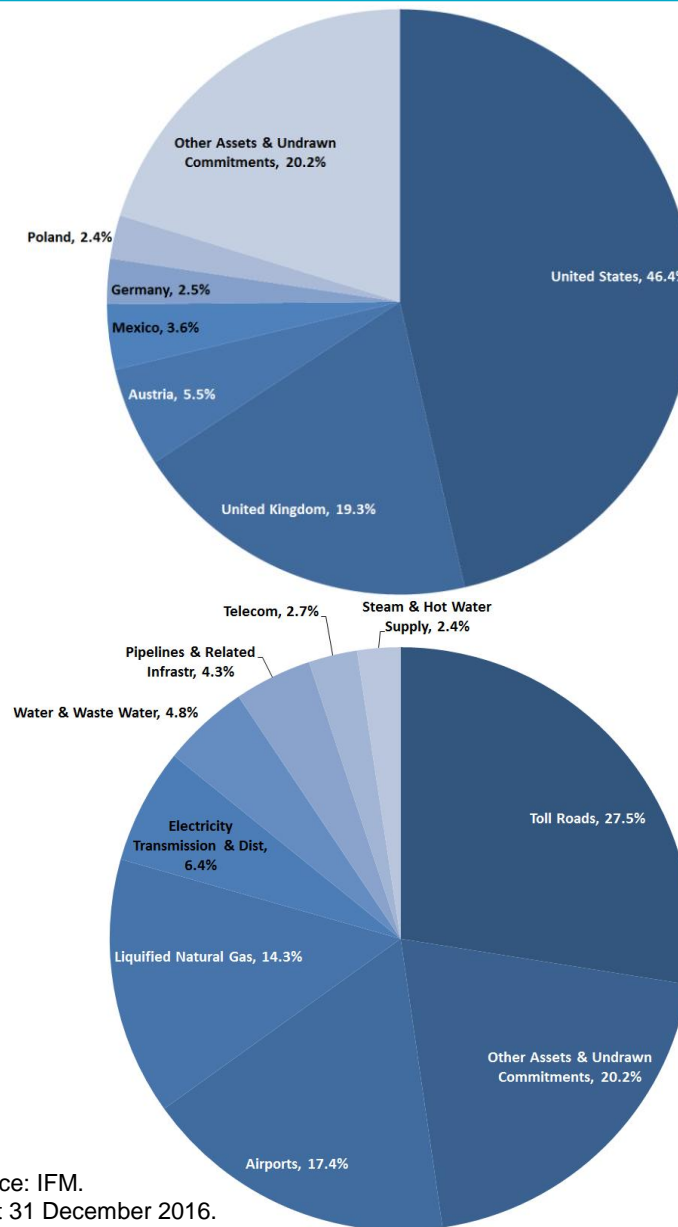
### Reason for investment

To reduce volatility of the Growth portfolio and increase diversification

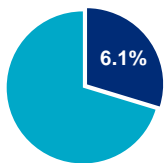
### Reason for manager

- Invests in core infrastructure assets in countries with established regulatory environments and strong rule-of-law.
- Seeks to invest in assets with strong market positions, predictable regulatory environments, high barriers to entry, limited demand elasticity and long lives

### Geographical and Sub-Sector Allocation



Source: IFM.  
As at 31 December 2016.



# ROYAL LONDON ASSET MANAGEMENT – FIXED INTEREST (POOLED)

## £253.8M END VALUE (£258.6M START VALUE)

### Item Monitored Outcome

Mercer Rating ● A (no change over period under review). ESG3

Performance Objective ● Outperformed benchmark by 0.5% p.a. over three years  
*Benchmark +0.8% p.a.*

### Manager Research and Developments

- Performance for the quarter was ahead of benchmark by 0.8%, continuing the trend of outperforming in falling markets (due to being short duration). The fund also outperformed over the year by 0.1% and over the three years by 0.5% p.a., although failed to meet its target on both occasions.
- As a result of the underperformance over the first half of the year, three-year rolling returns have dropped below target.
- Royal London retain their short duration position, in the expectation of a gradual increase in UK government bonds yields. That positioning aided performance over the quarter.
- Credit sector and stock selection were the main contributors for the fund outperformance last quarter. In particular, the fund benefitted from an overweight allocation to financials and stock selection within secured and structured sectors.
- Royal London remain underweight AAA-A bonds, and overweight BBB-unrated.

Weighted Duration	Start of Quarter	End of Quarter
<i>Fund</i>	8.1	7.8
<i>Benchmark</i>	8.4	8.1

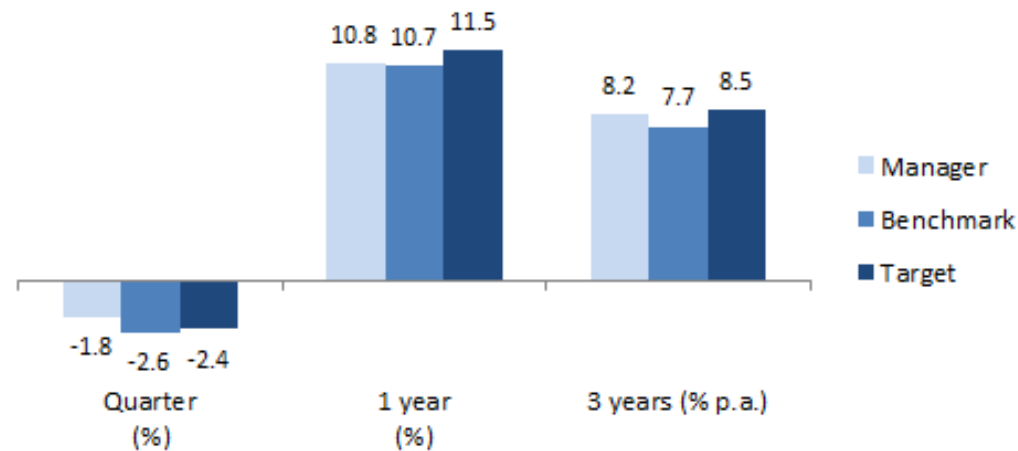
### Reason for investment

To maintain stability in the Fund as part of a diversified fixed income portfolio

### Reason for manager

- Focussed research strategy to generate added value
- Focus on unrated bonds provided a “niche” where price inefficiencies are more prevalent. Product size means can be flexible within market

### Performance



### Rolling relative returns

Quarterly Excess Return vs. Markit iBoxx Non Gilts Overall with rolling 1 and 3 yr lines in GBP (after fees) over 3 yrs ending December-16



# RECORD – CURRENCY HEDGING (SEGREGATED)

## -£21.3M END VALUE (-£62.3M START VALUE)

Item Monitored	Outcome
Mercer Rating	<span style="color: orange;">●</span> N (no change over period under review)
Performance Objective N/A	<span style="color: grey;">●</span> In line with the 50% hedging position

### Manager Research and Developments

Over the quarter, Brexit uncertainty coupled with a rate rise by the Federal Reserve in the US led to sterling extending its depreciation against the US dollar (by c.4.9%). Sterling appreciated marginally against the euro (by c.1.3%) and materially against the Japanese yen (by c.9.6%), as the Bank of Japan's ongoing commitment to manage the yield curve through its bond purchase programme led to a weaker yen. (These currency exchange movements are based on end of day pricing, which may not tie in precisely with the pricing points used by Record).

The Fund's policy is to passively hedge 50% of currency exposure on developed global equities (dollar, euro and yen), and 100% on the hedge fund, global property and infrastructure mandates.

Performance for each of these separate accounts is shown to the right; as expected, performance for the passive mandate has been broadly in line with the (informal) 50% benchmark; where this differs from the movement in currency rates this relates to the timing of the implementation trades (2pm) and the currency rates quoted (4pm fix).

### Reason for investment

To manage the volatility arising from overseas currency exposure, whilst attempting to minimise negative cashflows that can arise from currency hedging

### Reason for manager

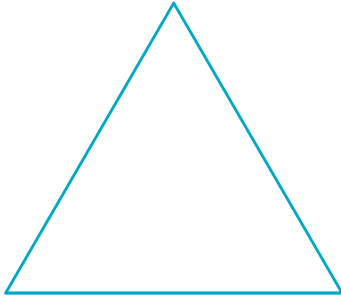
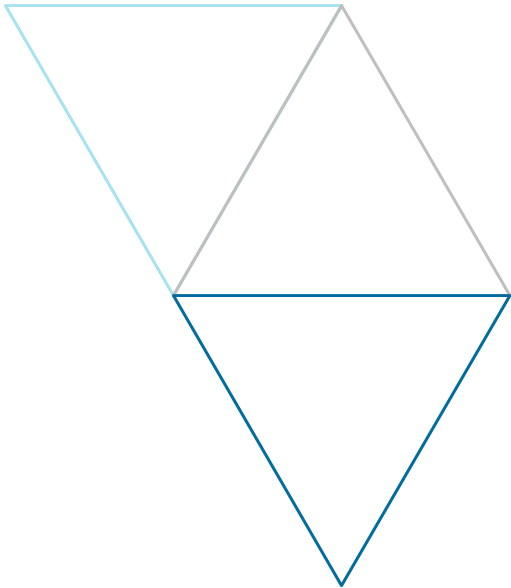
- Straightforward technical (i.e. based on price information) process
- Does not rely on human intervention
- Strong IT infrastructure and currency specialists

Currency Hedging Q3 2016 Performance (£ terms)						
Passive Developed Equity Hedge						
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	50% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)
USD	588,739,030	617,956,577	5.13%	(2.76%)	(2.74%)	2.52%
EUR	184,598,315	187,348,160	(1.33%)	0.62%	0.64%	(0.51%)
JPY	139,173,056	130,562,894	(8.73%)	4.39%	4.42%	(4.37%)
<b>Total</b>	<b>912,510,400</b>	<b>935,867,632</b>	<b>1.66%</b>	<b>(1.04%)</b>	<b>(1.01%)</b>	<b>0.86%</b>
Passive Hedge Fund Hedge						
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)
USD	208,776,819	222,616,456	5.13%	(5.58%)	(5.51%)	(0.11%)
<b>Total</b>	<b>208,776,819</b>	<b>222,616,456</b>	<b>5.13%</b>	<b>(5.58%)</b>	<b>(5.51%)</b>	<b>(0.11%)</b>
Passive Property Hedge						
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)
USD	38,544,057	36,719,132	5.13%	(5.58%)	(5.51%)	(0.12%)
EUR	148,773,467	144,998,957	(1.33%)	0.96%	0.97%	0.12%
<b>Total</b>	<b>187,317,525</b>	<b>181,718,089</b>	<b>(0.03%)</b>	<b>(0.39%)</b>	<b>(0.36%)</b>	<b>0.07%</b>
Passive Infrastructure Hedge						
Currency	Start Exposure (£)	End Exposure (£)	Currency Return (%)	100% Benchmark Return (%)	Record Hedge Return (%)	Net Return (%)
USD	84,633,924	90,879,485	5.13%	(5.58%)	(5.51%)	(0.11%)
EUR	15,055,295	14,927,507	(1.33%)	0.96%	0.98%	0.12%
<b>Total</b>	<b>99,689,219</b>	<b>105,806,993</b>	<b>4.17%</b>	<b>(4.63%)</b>	<b>(4.57%)</b>	<b>(0.08%)</b>



# APPENDIX 1

## SUMMARY OF MANDATES



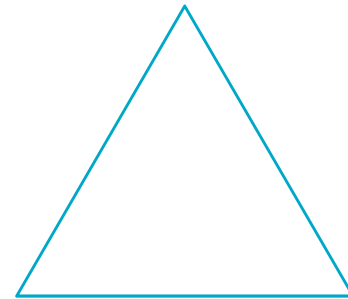
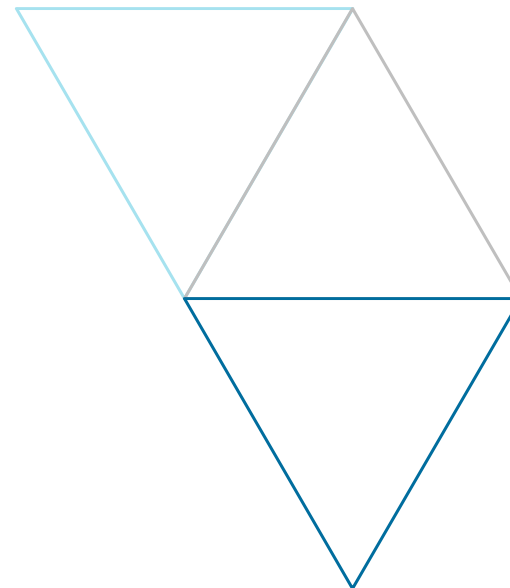
# SUMMARY OF MANDATES

Manager	Mandate	Benchmark	Outperformance target (p.a.)
BlackRock	Passive Multi-Asset	In line with customised benchmarks using monthly mean fund weights	-
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 Index Free	+4%
Genesis	Emerging Market Equities	MSCI EM IMI TR	-
Unigestion	Emerging Market Equities	MSCI EM NET TR	+2-4%
Invesco	Global ex-UK Equities (Enhanced Indexation)	MSCI World ex UK NDR	+0.5%
SSgA	Europe ex-UK Equities (Enhanced Indexation)	FTSE AW Europe ex UK	+0.5%
SSgA	Pacific inc. Japan Equities (Enhanced Indexation)	FTSE AW Dev Asia Pacific	+0.5%
Pyrford	Diversified Growth Fund	RPI +5% p.a.	-
Standard Life	Diversified Growth Fund	6 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.	-
Royal London Asset Management	UK Corporate Bonds	iBoxx £ Non-Gilts All Maturities	+0.8%
Record	Passive Currency Hedging	N/A	-
Cash	Internally Managed	7 Day LIBID	-

# APPENDIX 2

## MARKET STATISTICS

### INDICES



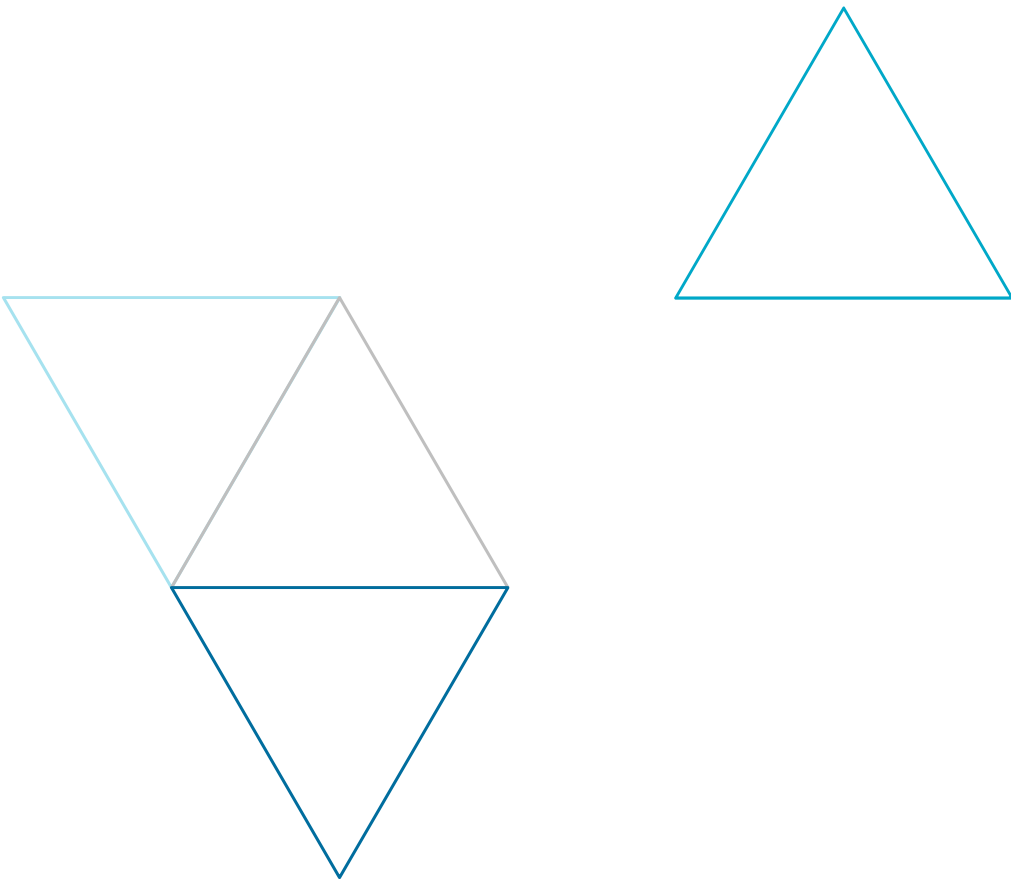
# MARKET STATISTICS INDICES

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 3

## CHANGES IN YIELDS

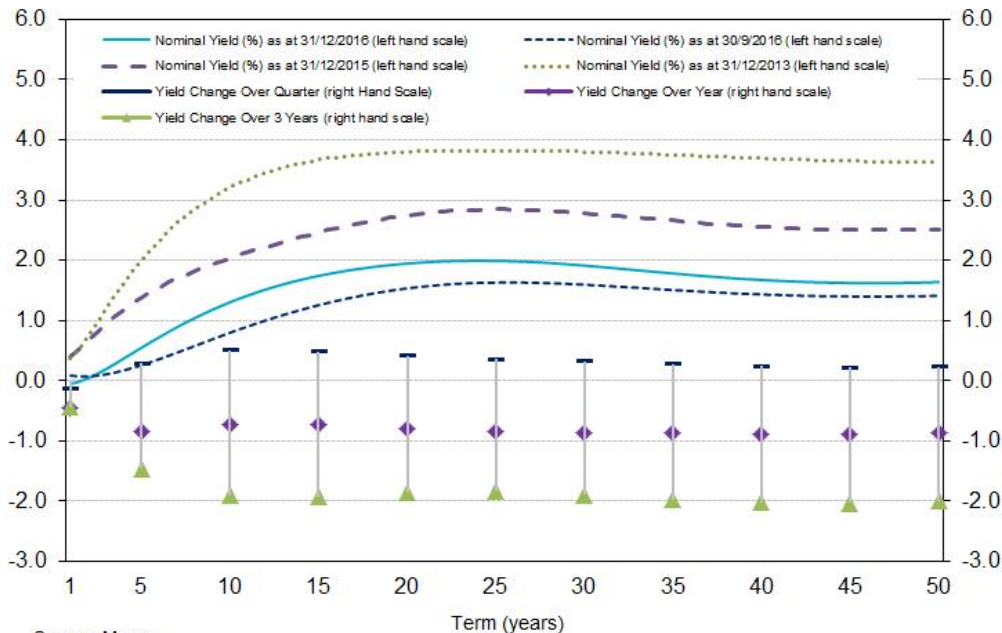


# CHANGES IN YIELDS

Asset Class Yields (% p.a.)	31 December 2016	30 September 2016	31 December 2015	31 December 2014
UK Equities	3.47	3.46	3.70	3.37
Over 15 Year Gilts	1.76	1.42	2.57	2.42
Over 5 Year Index-Linked Gilts	-1.66	-1.78	-0.70	-0.75
Sterling Non Gilts	2.29	1.99	3.23	2.99

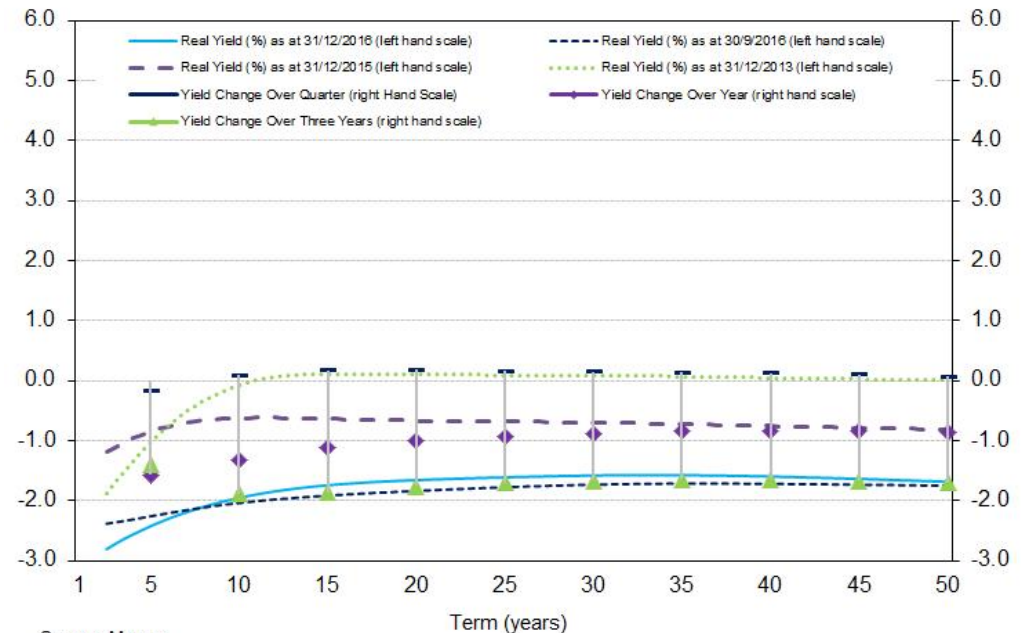
- Bond yields rose across all maturities over the quarter, resulting in negative absolute returns for investors.
- In the UK, gilt yields rose amid expectations for higher inflation and the yield curve also steepened. The Over 15 Year Gilt Index underperformed the broader global bond market over the quarter, generating a negative return of 6.0%.
- Real yields also rose over the quarter, though to a lesser extent, with increases varying between c.10bps and 20bps across the curve. The Over 5 Year Index-Linked Gilts Index was down 3.0% over the quarter.
- Movements in credit spreads were marginal over the quarter, with the sterling Non-Gilts All Stocks Index ending the quarter at c.1.2% and the sterling Non-Gilts All Stocks over 10 years Index ending the quarter at c.1.3%. UK credit assets posted a negative return of 2.8% over the quarter, driven by rising bond yields and underperforming the broader global credit market.

## Nominal yield curves



Source: Mercer.

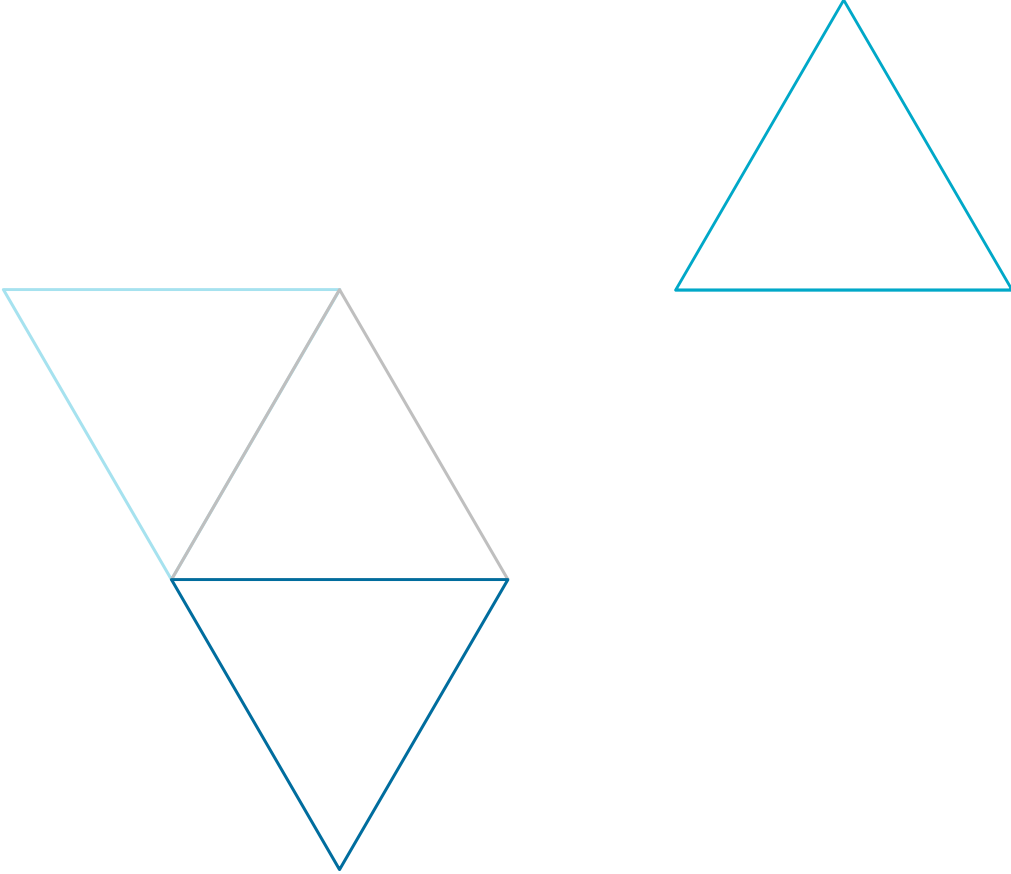
## Real yield curves



Source: Mercer.

# APPENDIX 4

## GUIDE TO MERCER RATINGS



# GUIDE TO MERCER RATINGS

## INTRODUCTION

This is a guide to the investment strategy research ratings (herein referred to as rating[s]) produced by Mercer's Investments business (herein referred to as Mercer). It describes what the ratings are intended to mean and how they should and should not be interpreted.

If you have any questions or would like more information about specific topics after reading this guide, please contact your Mercer consultant or click "Contact us" on our website [www.mercer.com](http://www.mercer.com).

## WHAT DO MERCER'S RATINGS SIGNIFY?

Mercer's ratings signify Mercer's opinion of an investment strategy's prospects for outperforming a suitable benchmark over a time frame appropriate for that particular strategy (herein referred to as outperformance). The rating is recorded in the strategy's entry on Mercer's Global Investment Manager Database (GIMD™) at [www.mercergimd.com](http://www.mercergimd.com).

Mercer's ratings are normally assigned to investment strategies rather than to specific funds or vehicles. In this context, the term "strategy" refers to the process that leads to the construction of a portfolio of investments, regardless of whether the strategy is offered in separate account format or through one or more investment vehicles. There are exceptions to this practice. These are primarily in real estate and private markets where the rating is normally applied to specific funds.

## WHAT DO MERCER'S RATINGS NOT SIGNIFY?

This section contains important exclusions and warnings; please read it carefully.

### **Past Performance**

The rating assigned to a strategy may or may not be consistent with its past performance. While the rating reflects Mercer's expectations on future performance relative to a suitable benchmark over a time frame appropriate for the particular strategy, Mercer does not guarantee that these expectations will be fulfilled.

### **Creditworthiness**

Unlike those of credit rating agencies, Mercer's ratings are not intended to imply any opinions about the creditworthiness of the manager providing the strategy.

### **Vehicle-Specific Considerations**

As Mercer's ratings are normally assigned to strategies rather than to specific investment vehicles, potential investors in specific investment vehicles should consider not only the Mercer ratings for the strategies being offered through those investment vehicles but also any investment vehicle-specific considerations. These may include, for example, frequency of dealing dates and any legal, tax, or regulatory issues relating to the type of investment vehicle and where it is domiciled. Mercer's ratings do not constitute individualized investment advice.

### **Management Fees**

To determine ratings, Mercer does not generally take investment management fees into account. The rationale for this is that, due to differing account sizes, differing inception dates, or other factors, the fees charged for a specific strategy will vary among clients. Potential investors in a specific strategy should therefore consider not only the Mercer rating for that strategy but also the competitiveness of the fee schedule that they have been quoted. The area of Alternative Investments is an exception — Mercer follows market practice for "Alternatives" and rates strategies on a net of fees basis.



# GUIDE TO MERCER RATINGS

## Operational Assessment

Mercer's research process and ratings do not include an evaluation of a manager's custodian, prime brokerage, or other vendor relationships, or an assessment of the manager's back office operations, including any compliance, legal, accounting, or tax analyses of the manager or the manager's investment vehicles. Research is generally limited to the overall investment decision-making process used by managers. In forming a rating, Mercer's investment researchers do not generally perform corporate-level operational infrastructure due diligence on a manager and do not perform financial or criminal background checks on investment management staff. Unless Mercer's investment researchers are aware of material information to the contrary (such as a view expressed by a manager's auditors or Mercer Sentinel®; see section 9), they assume that the manager's operational infrastructure is reasonable. Operational weaknesses that Mercer's investment researchers discover during their analysis of the four factors outlined in section 4 will be noted and, where appropriate, taken into account in determining ratings.

## FACTORS CONSIDERED IN FORMING A RATING

In order to determine the rating for a particular strategy, Mercer's investment researchers review the strategy on the basis of four specific factors — idea generation, portfolio construction, implementation, and business management — each of which is assigned one of four scores: negative (-), neutral (=), positive (+), or very positive (++).

Mercer believes that idea generation, portfolio construction, and implementation are the main components of every investment process. These factors are defined as:

**Idea generation** encompasses everything that the investment manager (herein referred to as manager) does to determine the relative attractiveness of different investments.

**Portfolio construction** refers to the manner in which the manager translates investment ideas into decisions on which investments to include in a portfolio and what weightings to give to each of these investments.

**Implementation** refers to the capabilities surrounding activities that are required to achieve the desired portfolio structure.

Mercer believes that managers that do these activities well should have above-average prospects of outperformance. However, Mercer also believes that to remain competitive over longer periods, managers must be able to maintain and enhance their capabilities in these three areas. To do this, managers need to have significantly strong business management, which is the fourth factor Mercer assesses.

**Business management** refers to the overall stability of the firm, firm resources, and overall operations.

The four factors above apply to most product categories that Mercer researches. Variations on these factors are used in some product categories. Examples here include passive strategies, liability driven investment and private markets.

A strategy's overall rating is not determined as a weighted average of the four factor scores, and no prescribed calculations are made to arrive at the four-factor score or the overall rating. Instead, for each strategy, Mercer's investment researchers identify which factors Mercer believes are most relevant to a manager's investment process and place weight on the factors accordingly. Example considerations include:

- § Mercer's confidence in the manager's ability to generate value-adding ideas.
- § Mercer's view on any specified outperformance target.
- § The opportunities available in the relevant market(s) to achieve outperformance.
- § An assessment of the risks taken to try to achieve outperformance.
- § An assessment of the strategy relative to peer strategies.
- § An assessment of the manager's business management and its impact on particular strategies.

# GUIDE TO MERCER RATINGS

## MERCER RATING SCALE

Ratings	Rationale
A	Strategies assessed as having “above average” prospects of outperformance
B+	Strategies assessed as having “above average” prospects of outperformance, but which are qualified by at least one of the following: § There are other strategies that Mercer believes are more likely to achieve outperformance § Mercer requires more evidence to support its assessment
B	Strategies assessed as having “average” prospects of outperformance
C	Strategies assessed as having “below average” prospects of outperformance
N/no rating	Strategies not currently rated by Mercer
R	The R rating is applied in three situations: § Where Mercer has carried out some research, but has not completed its full investment strategy research process § In product categories where Mercer does not maintain formal ratings but where there are other strategies in which we have a higher degree of confidence § Mercer has in the past carried out its full investment-strategy research process on the strategy, but we are no longer maintaining full research coverage

The above definitions apply to the majority of product categories researched by Mercer. However for some product categories the rating scale reflects Mercer’s degree of confidence in a manager’s ability to achieve a strategy’s stated aims. Examples of where this applies include low volatility equities, cash, passive, liability driven strategies and DC specific solutions.

# GUIDE TO MERCER RATINGS

## SUPPLEMENTAL INDICATORS

### Provisional (P)

If the Mercer strategy rating is followed by a (P) - for example, A (P) or B+ (P) - the rating is “provisional” - that is, there is temporary uncertainty about the rating, but it is expected that this will soon be resolved. For example, should two managers announce a merger, but without further details, this uncertainty may be highlighted by modifying the rating strategies for one or both of those firms - for instance, from A to A (P). (P) indicators are intended to be temporary and should normally last for no more than two weeks. As soon as the temporary uncertainty has been resolved, or if it becomes apparent that this uncertainty is unlikely to be resolved quickly, the (P) indicator will be removed and the rating confirmed or changed, or the strategy will be assigned the indicator “watch” (W).

### Watch (W)

If the Mercer strategy rating is followed by a (W) – for example, A (W) or B+ (W) - the rating is “watch” - there is some uncertainty about the rating and resolution is not expected soon, but Mercer believes there is a low probability that the resolution of this uncertainty will lead to a change in the strategy’s rating. (W) indicators are typically issued when there is an expectation of long-term uncertainty surrounding the rating - for example, a change, or potential change, in a manager’s ownership.

### Specifically Assigning (P) and (W) Supplemental Indicators

(P) and (W) indicators are assigned - and removed - by the regular ratings review process described earlier; however, there are circumstances where organizational or reputational issues that affect a manager warrant the specific assignment of a (P) or (W) indicator to an existing rating. In such circumstances, the decision to apply - or remove - a (P) or (W) indicator is taken by two senior members of the leadership group of the Manager Research team. These occasions are rare, and the relevant investment researchers will contribute to any discussions before a (P) or (W) indicator is assigned or removed.

### High Tracking Error (T)

If the Mercer strategy rating is followed by a (T) — for example, A (T) or B+ (T) — the strategy is considered to have the potential to generate a tracking error substantially higher than the average for the relevant product category. In this context, “tracking error” refers to the variability of performance relative to the nominated benchmark for the strategy. A strategy may be assigned the (T) indicator because the potential for high tracking error has been demonstrated by the strategy’s past performance and/or because the nature of the investment process is such that a significantly higher than average tracking error could be expected. The absence of a (T) following a rating does not guarantee that the strategy’s tracking error will not be higher than the average for the relevant product category.

## NICHE STRATEGIES

Mercer categorize a limited number of strategies as Niche. The Niche categorization is applied to strategies that are perceived as highly differentiated. Mercer does not have specific rules as to what characterizes a Niche strategy but examples might include strategies where a manager is seeking to exploit anomalies not generally recognized by other market participants. It might also be applied to strategies with a short track record and/or limited assets under management.

# GUIDE TO MERCER RATINGS

## RESEARCH INDICATIONS – INDICATIVE VIEW

For strategies where Mercer has conducted some initial research, we may apply Mercer Research Indications. Mercer's Research Indications are an indication of whether a strategy merits deeper / further due diligence. This indication is shown by an assigned indicative view, identified as a colour. A Research Indication does not necessarily result in future research. All Research Indications are assigned as R rating.

§ Red – further research has “below average” prospects of resulting in an investable rating.

§ Amber – further research has “average” prospects of resulting in an investable rating.

§ Green – further research has “above average” prospects of resulting in an investable rating.

An investable rating is defined as an A or B+.

## OPERATIONAL RISK ASSESSMENTS

Mercer Sentinel, a division within Mercer, undertakes operational risk assessments (ORAs) on managers, most often on behalf of clients. These ORAs assess managers' operations and implementation risk profiles and cover some of the areas mentioned in section 3, as well as other areas related to operational risk. ORAs are undertaken separately from the Manager Research process; however, the results are shared with the Lead Researcher for the manager. A Mercer Sentinel ORA that concludes with an unsatisfactory rating (namely, a “Review” rating) for a manager will result in an immediate (P) rating for all that manager's relevant rated strategies. Discussions will follow and any subsequent change in investment rating will be ratified by the standard Manager Research process. Contact your Mercer consultant for more information.

## ENVIRONMENTAL, SOCIAL, AND CORPORATE GOVERNANCE RATINGS

Mercer also assigns ratings to strategies that represent Mercer's view on the extent to which environmental, social and corporate governance (ESG) and active ownership practices (voting and engagement) are integrated into the manager's investment process and decision-making across asset classes. ESG factors are incorporated into the investment process on the basis that these issues can impact revenue, operating costs, competitive advantage, and the cost of capital. During discussions with managers about ESG integration, Mercer assesses the use of ESG information to generate outperformance.

# GUIDE TO MERCER RATINGS

ESG Rating Scale	
ESG1	The highest ESG rating is assigned to strategies that Mercer believes to be leaders in integrating ESG and active ownership into their core processes, and that provide clear evidence that ESG overall, or a particular ESG theme, is core to idea generation and portfolio construction.
ESG2	The second highest rating is assigned to strategies that, in Mercer's view, include ESG factors as part of decision making, with a strong level of commitment made at a firmwide level and some indication that data and research are being taken into account by the managers in their valuations and investment process.
ESG3	The penultimate rating is assigned to strategies for which, in Mercer's view, the manager has made some progress with respect to ESG integration and/or active ownership, but for which there is little evidence that ESG factors are taken into consideration in valuations and investment process.
ESG4	The lowest ESG rating is assigned to strategies for which, in Mercer's view, little has been done to integrate ESG and active ownership into their core process.

For passive strategies, Mercer applies an ESGp1 through to ESGp4. There are two key distinctions between ESG ratings for passive and active strategies. First, for passive, the bulk of the focus is on voting and engagement practices. Second, most of Mercer's analysis focuses on firm-wide levels of commitment rather than at the individual strategy level.

## RATINGS REVIEW COMMITTEES

Mercer has a process for reviewing and ratifying the ratings proposed by individual investment researchers. For most product categories, strategy ratings are reviewed regularly by one of several RRCs that operate within Mercer. These committees are composed of professionals from Mercer's investment research and consulting groups who draw on research carried out by Mercer investment researchers and consultants. The role of the RRCs is to review this research from a quality control perspective and ensure consistency of treatment across strategies within a product category.

For certain asset classes, ratings will not have been reviewed by an RRC; however, the rating will have been reviewed by at least two suitably qualified investment researchers or consultants other than the recommending researcher. An R rating will not necessarily have been reviewed by an RRC but will have been subject to Mercer's standard peer review process.

## CONFIDENTIALITY OF MERCER'S RATINGS

Mercer's ratings, along with all other information relating to Mercer's opinions on managers and the investment strategies they offer, represent Mercer's confidential and proprietary intellectual property and are subject to change without notice. The information is intended for the exclusive use of the parties to whom it was provided by Mercer and may not be modified, sold, or otherwise provided, in whole or in part, to any other person or entity (including managers) without Mercer's prior written permission.

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**TOMORROW,**  
**TODAY**

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