



NORTHERN
TRUST

London Borough of Hillingdon

Investment Risk & Analytical Services

December 31, 2016

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Client Commentary

Total Scheme Commentary

Over 2016 the global economy has seen respectable growth, when using the performance of equity markets as a guide, although that performance varies greatly when currency returns are factored in. The strength of the global economy is viewed sceptically by many given that the same concerns persist; instability in Europe, unpredictability at the Fed and uncertainty in the Emerging Markets. Equity markets performed admirably in light of the number of surprises 2016 threw at them; Brexit, election of President Trump and the Italian resistance to constitutional reform to name just a few poll confounding results. OPEC finalised its production cut commencing in January, sending oil prices higher in December and boosting oil exporting nations. Globally, Financials gained most value over quarter four but Oil & Gas was the top sector over 2016. Health Care lost most value over both quarter four and 2016 as a whole. The expected negative impacts of Brexit on the UK economy, apart from the hammering that Sterling took, are yet to be felt. Q3 GDP, the first post Brexit figure, came in at 0.5%, beating expectations. The FTSE All Share was up 3.9% (GBP) over the fourth quarter and is now ahead over one year by 16.8% (GBP). Despite significant movements in exchange rates, inflation remains relatively low given the circumstances, with the CPI for 12 months coming in at 1.6% in December. In the UK, yields settled significantly higher for the quarter but down for the year, the 10-year Gilt finishing at 1.24% up from 0.75% in Q3 and down from 1.96% at the end of 2015. The FTSE All Stock Index returned -3.43% for Q4 and 10.10% for 2016 and the Merrill Lynch Sterling Non-Gilts returned -2.77% for the quarter and 10.60 for the year.

Against this backdrop the London Borough of Hillingdon returned 3.85% which leads to an outperformance of 103 basis points against the Total Plan benchmark of 2.78%. In monetary terms this is a growth in assets of £34.1 million and the value of the combined scheme now stands at £930.7 million as at 31st December 2016. This period the SSGA mandates were terminated and the capital used to fund a new Legal & General balanced mandate, while £14.3 million of distributions from M&G was transferred to the Cash Account. Looking further into the analysis the results seen were driven by selection effects, the most notable being UBS UK Equity impact of 91 bps, with M&G adding a further 44 bps, this was partly offset by Newton, detracting -45 bps. While within allocation, with weights closely in line with the strategic position leading to a minimal impact.

With all four quarters of 2016 showing both positive absolute and relative figures the Scheme posts a return of 17.81% for the full year, which is 2.60% ahead of the benchmark of 14.83%. The largest impact once again comes from selection, the most significant in UBS UK Equity (+1.47%) coupled with Ruffer (+1.29%), although these are slightly offset by the negative effect from Newton (-0.56%). While allocation has a negative impact coming from underweighting the now terminated State Street Gilts and Newton, while overweighting Premira. While over the longer periods, the Scheme continues to outperform, producing a return of 9.29% over three year versus 8.46%, while for 5 years we see figures of 10.19% versus 9.14% per annum. Then since inception in September 1995, the Fund remains ahead of target by 16 basis points with an annualised return of 7.17% against exactly 7%.

Manager Commentary

AEW UK

In contrast to the previous period, in the latest quarter AEW UK Property overturned the previous quarter's losses by returning 3.58%, relatively this is a 1.25% outperformance when compared to the IPD UK PPFI All Balanced Funds index figure of 2.30%. Then with positive absolute returns in all but one period since inception and only three quarters in the red on a relative basis, growth ahead of benchmark is seen in all longer periods. For the rolling one year a return of 6.63% against the benchmark of 4.25% translates as a 2.28% relative return. Then in the short period since inception in June 2014, the fund return is 11.33%, leading to an outperformance of 1.02% when compared to the IPD figure of 10.21%.

GMO Global

In the fourth quarter the GMO Global mandate produced the largest loss in asset value with a return of -1.24% leading to an underperformance of -1.42% when measured against the OECD CPI G7 (GBP) Index figure of 0.18%. Thanks to the good results in Q3 an outperformance of 0.55% is still seen for the one year period, with figures of 2.12% versus 1.55%. However, driven by the Q3 results in 2015, in the short period since the start of November 2014 when the fund incepted, a return of -0.99% against the benchmark of 0.65% leads to a shortfall of -1.62%.

JP Morgan

During the latest quarter JP Morgan was the only other mandate (along with GMO) to see a fall in value, posting -0.33% leading to an underperformance of -1.20% when compared to the 0.89% target for the 3 Month LIBOR + 3% p.a. Although with good results in the three other quarters in 2016, the one year return of 8.09% is ahead of the 3.62% target by 4.31%. Then despite dipping just below the benchmark over the three years with 3.31% vs 3.59%, in just over 5 years since the mandate funded their return of 3.90% is 25 basis points above the target return of 3.64% on an annualised basis.

Legal & General

At the end of October 2016 the Legal & General mandate was funded from the proceeds of the terminated SSGA mandates, it is measured against a custom fixed weight blended benchmark consisting of FTSE equity indices, FTSE Index Linked and iBoxx UK Non-Gilts. In the short 2 month period since inception, they demonstrate the passive strategy by returning 0.85% against 0.88% for the benchmark.

SSGA Balanced / SSGA Gilts

During the fourth quarter both SSGA mandates were terminated with the funds being transferred to the new Legal & General mandate.

Client Commentary (cntd)

Manager Commentary

London CIV Ruffer

This quarter the London CIV Ruffer portfolio produced a 2.05% return, compared to the LIBOR 3 Month GBP figure of 0.10%, this leads to a relative return of 1.94%. This is now five consecutive quarters of positive absolute and relative returns, meaning the one year period exhibits a growth of 12.66% against the target of 0.56%. Then with only three quarters in the red in the last five years, outperformance remains in the longer periods. This is seen in a three year return of 7.21% versus 0.56%, then similarly for the five years with figures of 7.25% against 0.63%, culminating in since inception (May 2010) figures of 6.73% versus 0.67% per annum, which translates as a relative return of 6.02%.

M&G Investments

In the latest quarter M&G demonstrates both the highest absolute and relative return with their growth of 13.57% against the 3 Month LIBOR +4% p.a. target of 1.08%, an outperformance of 12.3%. With three consecutive quarters of outperformance, the full year return leads the benchmark by 15.51%, coming from figures of 20.71% against 4.50%. Over the three and five year the account registers figures of 11.21% vs 4.55% and 8.91% vs 4.61% respectively; since inception (May 2010) return falls slightly to 7.78% pa whilst the benchmark is 4.67% pa. Although the since inception Internal Rate of Return moves further ahead of target with a figure of 9.02% opposed to the comparator of 4.41%.

Macquarie

Over the last three months, Macquarie produced a growth of 3.29%, against the 0.83% for the 3 Month LIBOR +3% p.a. translates as an outperformance of 2.44%. With ten consecutive quarters of positive absolute and relative returns, outperformance is seen in all longer periods. Over 2016 a growth of 29.13% beats the target of 3.50% by 24.76%, the highest relative return over this period; similarly the three year result of 16.60% versus 3.55% also exhibits the best relative return at 12.61%. The annualised return over 5 years falls to 7.06%, but still ahead of the 3.60% seen for the benchmark; then since inception (September 2010) the 3.76% is just ahead of the target of 3.66%. Although the since inception Internal Rate of Return for this portfolio jumps to 13.12%, which is ahead of the benchmark figure of 3.57%.

Newton

In the fourth quarter of 2016 Newton produced a return of 3.72%, although this was a relative return of -3.05% when compared to the 6.98% seen for the FTSE World Index +2%. With three consecutive quarters of underperformance, they fall -1.09% short of the benchmark over the calendar year, generated from figures of 30.13% versus 31.56%. Then with nine underperforming quarters over the last twelve the three year return falls just short with figures of 16.02% versus 16.56%; then since inception in January 2013, the fund return of 14.98% falls short of the yardstick of 16.45% by -1.26% on an annualised basis.

Manager Commentary

Private Equity

Over the latest period private equity assets show positive absolute returns, LGT continued their 3 year run of growth with a figure of 3.97%, while Adam Street posted 8.96%. Over the longer periods, the outlook over which private equity investments should be measured, returns remain positive. Over one and three years they both exhibit some of the highest returns seen, Adam Street posts 28.47% and 23.57%, while LGT is 31.59% and 18.49% respectively, while the proxy benchmark of MSCI AC World +4% p.a. shows 33.40% and 18.49%. While over five years both see a slight fall with Adam Street at 17.30%, while LGT posts 13.87% against the benchmark of 17.61%. Then since their respective inceptions in January 2005 and May 2004, Adam Street drops to 6.88% pa, while LGT sees a slight dip to 10.55%.

Premira Credit

The Premira Credit Fund saw a growth of 2.56% over the final quarter of 2016, this compares favourably with the 3 Month LIBOR +4% p.a. target of 1.08% over the quarter. Coupled with the previous period's results, the one year is ahead of target with figures of 6.89% versus 4.50%, creating an outperformance of 2.29%. Then since the start of December 2014 when the fund incepted, the fund posts a return of 9.98% against the benchmark of 4.47%, leading to a relative position of 5.27%.

UBS

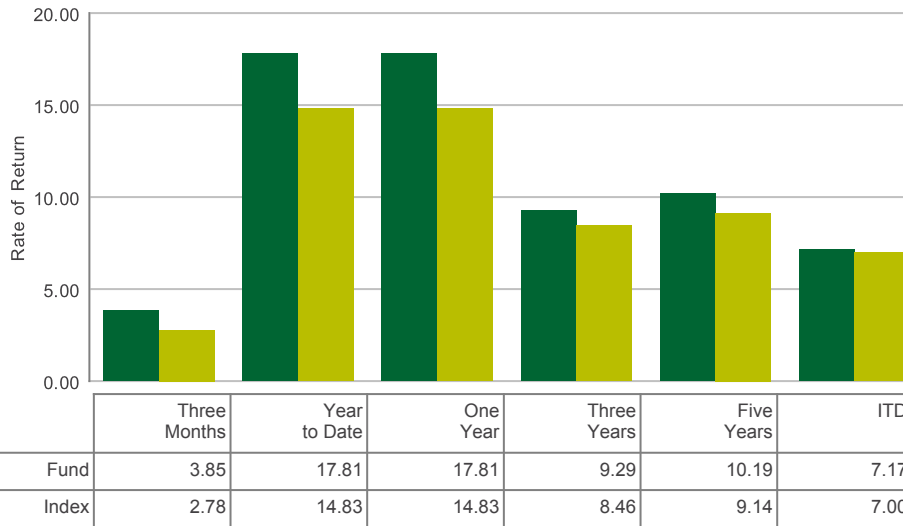
During Q4 the UBS UK Equity investments returned of 11.45% compared to the FTSE All Share figure of 3.89%, generating an outperformance of 7.28%. Looking into the attribution analysis, selection was the main driver with all but one sector showing positive effects, the most notable being the 1.55% from Financials and 1.18% from Basis Materials. Within allocation, also all but one sector adds value, the most significant being underweight Consumer Goods (1.16%), slightly negated by the cash drag. With all 4 quarters in the black the one year figures of 30.99% vs 16.75% leads to a relative return of 12.20%. This is attributable to both allocation and selection, the biggest impacts come from both overweighting Basis Materials (3.41%) and selection in the sector (3.30%); while the largest negative impact was once again the drag from the 2% cash exposure. This feeds into the longer time periods, with three and five years ahead of the index, culminating in a since inception return of 10.30% versus 8.87% on an annualised basis.

UBS Property

In the latest period the UBS Property assets overturned the previous two quarter's absolute losses with a growth of 1.68%, although against the IPD UK PPF All Balanced Funds index figure of 2.30% still translates as a relative return of -0.61%. This feeds into the one year numbers, with a full year return of 1.38% falling -1.38% behind the IPD target of 2.80%. Although the previous good run of results prior to the last three quarters leads to high absolute returns staying ahead of the IPD target over the longer periods, peaking over the three year with a return of 12.40% against 10.65%. Then since inception, in March 2006, the

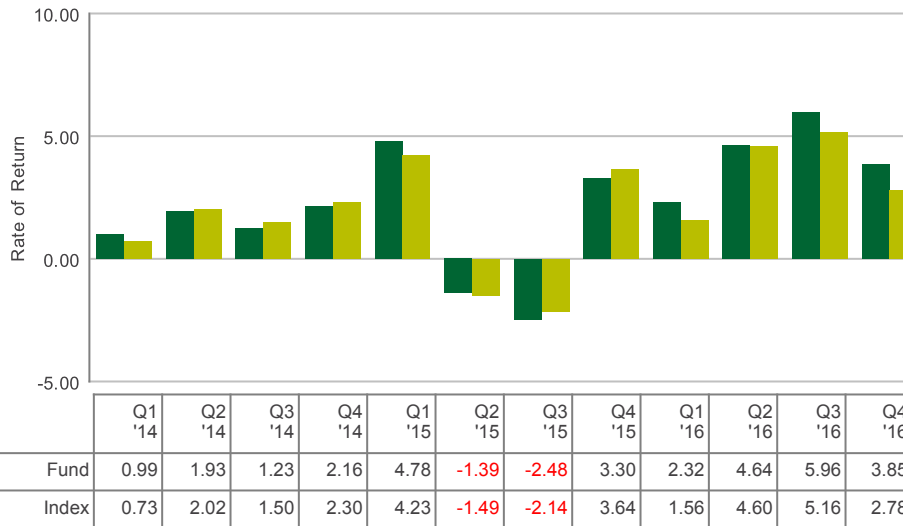
Executive Summary

LONDON BOROUGH OF HILLINGDON TOTAL FUND GROSS OF FEES



Index: Total Plan Benchmark

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES

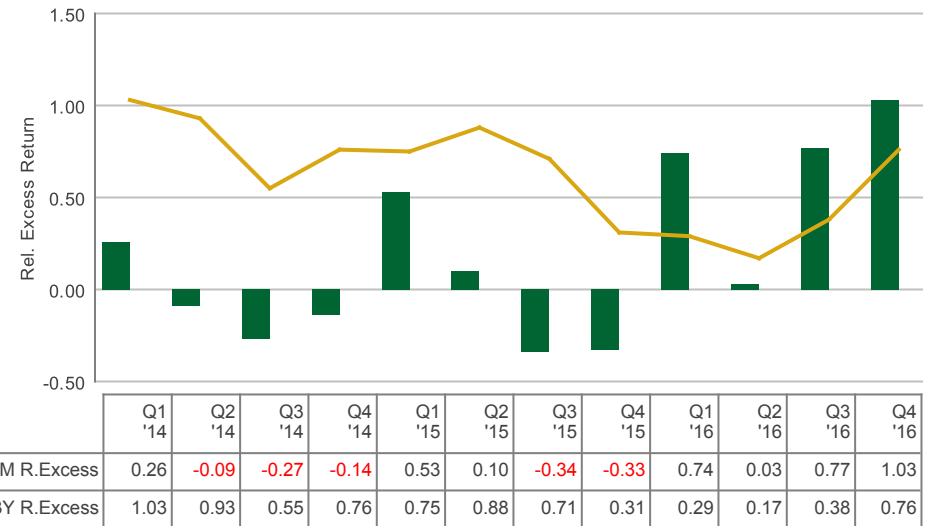


Index: Total Plan Benchmark

Risk Statistics	3 Yrs	5 Yrs
Return	9.29	10.19
Index Return	8.46	9.14
Excess Return	0.83	1.05
Standard Deviation	5.09	5.35
Index Standard Deviation	4.89	5.00
Tracking Error	1.14	1.10
Information Ratio	0.72	0.96
Sharpe Ratio	1.70	1.76
Index Sharpe Ratio	1.59	1.67
Sortino Ratio	-	3.30
Treynor Ratio	8.51	8.98
Jensen's Alpha	0.67	0.60
Relative Volatility (Beta)	1.01	1.05
R Squared	0.95	0.96

Index: Total Plan Benchmark. Risk Free Index: JP Morgan 3 month Cash (GBP)
Category: Total Fund Gross of Fees.

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES



Index: Total Plan Benchmark

Investment Hierarchy

Account/Group -% Rate of Return	Ending Market Value GBP	Ending Weight	Three Months			Year to Date			One Year		
			Port	Index	Relative Excess	Port	Index	Relative Excess	Port	Index	Relative Excess
London Borough of Hillingdon	930,748,900	100.00	3.85	2.78	1.03	17.81	14.83	2.60	17.81	14.83	2.60
Total Plan Benchmark											
AEW UK	46,730,459	5.02	3.58	2.30	1.25	6.63	4.25	2.28	6.63	4.25	2.28
LBH22 AEW Benchmark											
GMO Global	60,319,132	6.48	-1.24	0.18	-1.42	2.12	1.55	0.55	2.12	1.55	0.55
LBH23 GMO Global											
JP Morgan	38,695,892	4.16	-0.33	0.89	-1.20	8.09	3.62	4.31	8.09	3.62	4.31
LBH15 BM JP Morgan BM											
Legal & General Invest Mngmt	215,052,876	23.11	-	-	-	-	-	-	-	-	-
LBH26 L&G Benchmark											
London CIV Ruffer	104,451,447	11.22	2.05	0.10	1.94	12.66	0.56	12.03	12.66	0.56	12.03
LBH11 Ruffer Benchmark											
M&G Investments	31,320,084	3.37	13.57	1.08	12.36	20.71	4.50	15.51	20.71	4.50	15.51
LBH10 3 Month Libor GBP +4%Pa											
Macquarie	26,844,879	2.88	3.29	0.83	2.44	29.13	3.50	24.76	29.13	3.50	24.76
LBH14 Macquarie Libor +3%											
Newton	131,743,855	14.15	3.72	6.98	-3.05	30.13	31.56	-1.09	30.13	31.56	-1.09
LBH19 FTSE World Index +2%											
Premira Credit	34,940,082	3.75	2.56	1.08	1.47	6.89	4.50	2.29	6.89	4.50	2.29
LBH24 Premira											
UBS	126,606,807	13.60	11.45	3.89	7.28	30.99	16.75	12.20	30.99	16.75	12.20
LBH04 UBS Benchmark											
UBS Property	67,755,726	7.28	1.68	2.30	-0.61	1.38	2.80	-1.38	1.38	2.80	-1.38
LBH06 UBS Property Benchmark											
Adam Street	19,290,336	2.07	8.96	7.16	1.69	28.47	33.40	-3.70	28.47	33.40	-3.70
Adam Street PE Bmark											
LGT	9,701,461	1.04	3.97	7.16	-2.98	31.59	33.40	-1.36	31.59	33.40	-1.36
LGT PE Bmark											

Investment Hierarchy(2)

Account/Group -% Rate of Return	Three Years			Five Years			Inception to Date			Inception Date
	Port	Index	Relative Excess	Port	Index	Relative Excess	Port	Index	Relative Excess	
London Borough of Hillingdon Total Plan Benchmark	9.29	8.46	0.76	10.19	9.14	0.96	7.17	7.00	0.16	30/09/1995
AEW UK LBH22 AEW Benchmark	-	-	-	-	-	-	11.33	10.21	1.02	30/06/2014
GMO Global LBH23 GMO Global	-	-	-	-	-	-	-0.99	0.65	-1.62	31/10/2014
JP Morgan LBH15 BM JP Morgan BM	3.31	3.59	-0.28	3.90	3.63	0.26	3.90	3.64	0.25	08/11/2011
Legal & General Invest Mngmt LBH26 L&G Benchmark	-	-	-	-	-	-	0.85	0.88	-0.02	31/10/2016
London CIV Ruffer LBH11 Ruffer Benchmark	7.21	0.56	6.62	7.25	0.63	6.57	6.73	0.67	6.02	28/05/2010
M&G Investments LBH10 3 Month Libor GBP +4%Pa	11.21	4.55	6.37	8.91	4.61	4.12	7.78	4.67	2.97	31/05/2010
Macquarie LBH14 Macquarie Libor +3%	16.60	3.55	12.61	7.06	3.60	3.33	3.76	3.66	0.09	30/09/2010
Newton LBH19 FTSE World Index +2%	16.02	16.56	-0.46	-	-	-	14.98	16.45	-1.26	24/01/2013
Premira Credit LBH24 Premira	-	-	-	-	-	-	9.98	4.47	5.27	30/11/2014
UBS LBH04 UBS Benchmark	7.72	6.05	1.57	14.05	10.11	3.59	10.30	8.87	1.32	31/12/1988
UBS Property LBH06 UBS Property Benchmark	12.40	10.65	1.59	9.13	8.18	0.88	3.46	3.29	0.16	31/03/2006
Adam Street Adam Street PE Bmark	23.57	18.49	4.29	17.30	17.61	-0.27	6.88	-	-	31/01/2005
LGT LGT PE Bmark	18.07	18.49	-0.35	13.87	17.61	-3.18	10.55	-	-	31/05/2004

Market Value Summary - Three Months

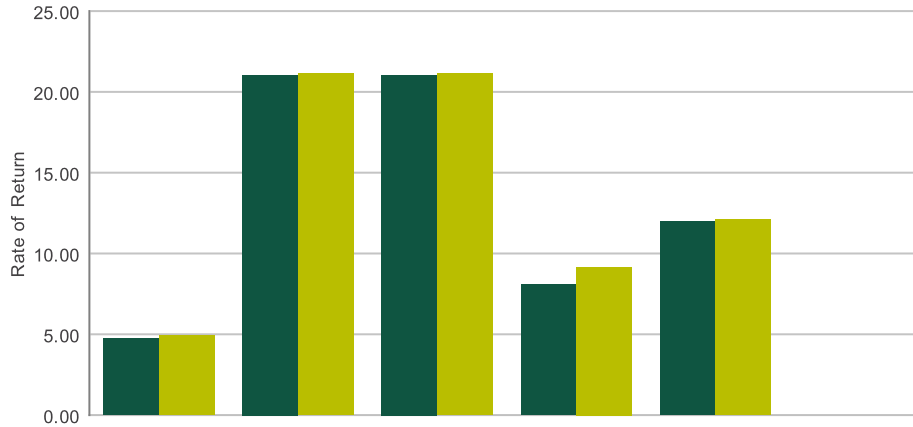
Account/Group	30/09/2016 Market Value	30/09/2016 Weight	Net Contribution*	Income	Fees	Appreciation	31/12/2016 Market Value	31/12/2016 Weight	Change in Weight
London Borough of Hillingdon	896,605,688	100.00	-335,029	1,015,075	61	33,463,166	930,748,900	100.00	0.00
Adam Street	19,034,640	2.12	-1,399,912	166,488	0	1,489,120	19,290,336	2.07	-0.05
AEW UK	45,137,548	5.03	-22,321	572,659	0	1,042,573	46,730,459	5.02	-0.01
Cash & Other Assets	2,842,625	0.32	14,364,769	1,217	61	87,254	17,295,865	1.86	1.54
GMO Global	61,075,639	6.81	0	0	0	-756,507	60,319,132	6.48	-0.33
JP Morgan	38,822,913	4.33	0	0	0	-127,022	38,695,892	4.16	-0.17
Legal & General Invest Mngmt	0	-	213,230,163	0	0	1,822,713	215,052,876	23.11	-
LGT	10,558,250	1.18	-1,255,464	-37	0	398,712	9,701,461	1.04	-0.14
London CIV Ruffer	102,365,365	11.42	-12,621	395	0	2,098,309	104,451,447	11.22	-0.19
M&G Investments	41,202,749	4.60	-14,286,706	2,609	0	4,401,431	31,320,084	3.37	-1.23
Macquarie	25,013,473	2.79	1,026,943	-306	0	804,769	26,844,879	2.88	0.09
Newton	127,019,877	14.17	-93	0	0	4,724,071	131,743,855	14.15	-0.01
Premira Credit	29,402,350	3.28	4,765,664	0	0	772,068	34,940,082	3.75	0.47
SSGA	182,451,958	20.35	-185,506,138	0	0	3,054,180	0	0.00	-20.35
State Street Gilts	27,969,143	3.12	-27,758,992	0	0	-210,151	0	0.00	-3.12
UBS	113,602,022	12.67	0	983,203	0	12,021,582	126,606,807	13.60	0.93
UBS Property	70,107,135	7.82	-3,480,320	-711,153	0	1,840,064	67,755,726	7.28	-0.54

Min -20.35  1.54 Max

*Net Contributions include Cash Contributions/Distributions, Security Deliveries/Receipts, Fees/Fee Rebates, Inter Account transfers for Consolidations & Benefits Payments.
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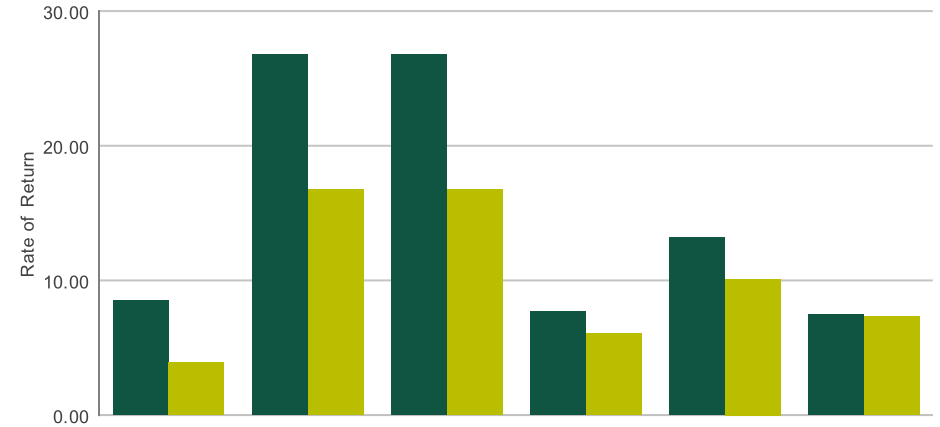
Historical Performance

EQUITY



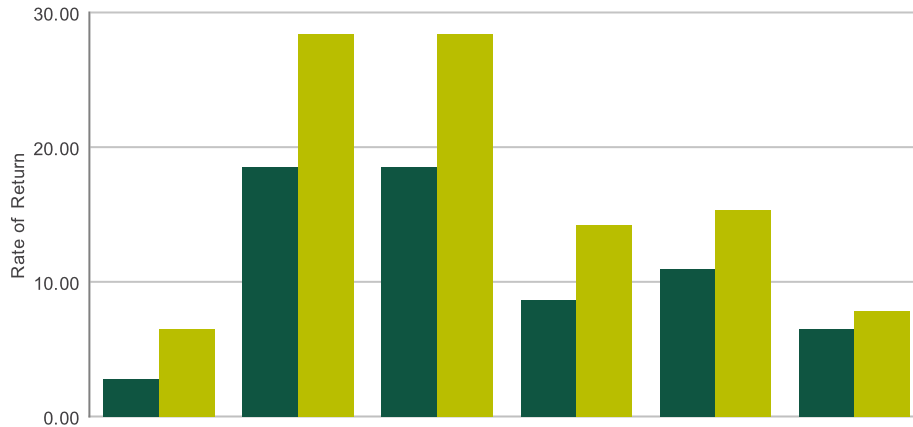
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	4.75	21.05	21.05	8.06	11.97	-
Index	4.91	21.15	21.15	9.17	12.11	-

UNITED KINGDOM



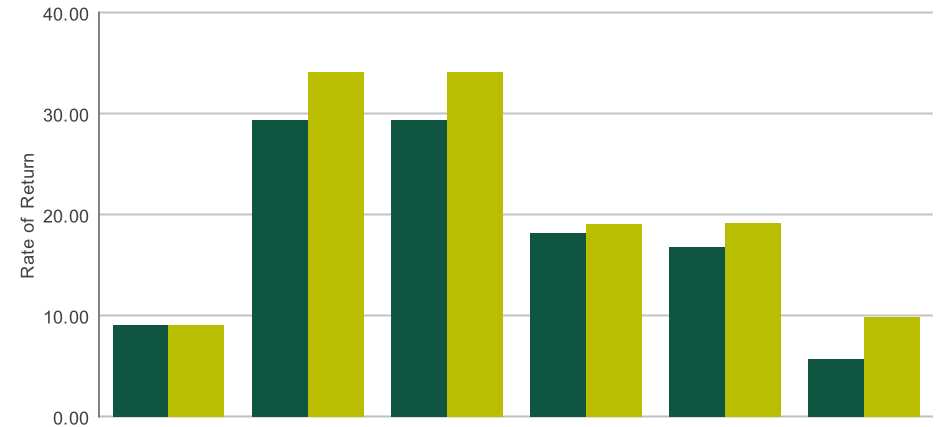
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	8.53	26.79	26.79	7.71	13.18	7.46
Index	3.89	16.75	16.75	6.05	10.11	7.34

OVERSEAS EQUITIES



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	2.75	18.55	18.55	8.68	10.94	6.47
Index	6.52	28.42	28.42	14.24	15.30	7.81

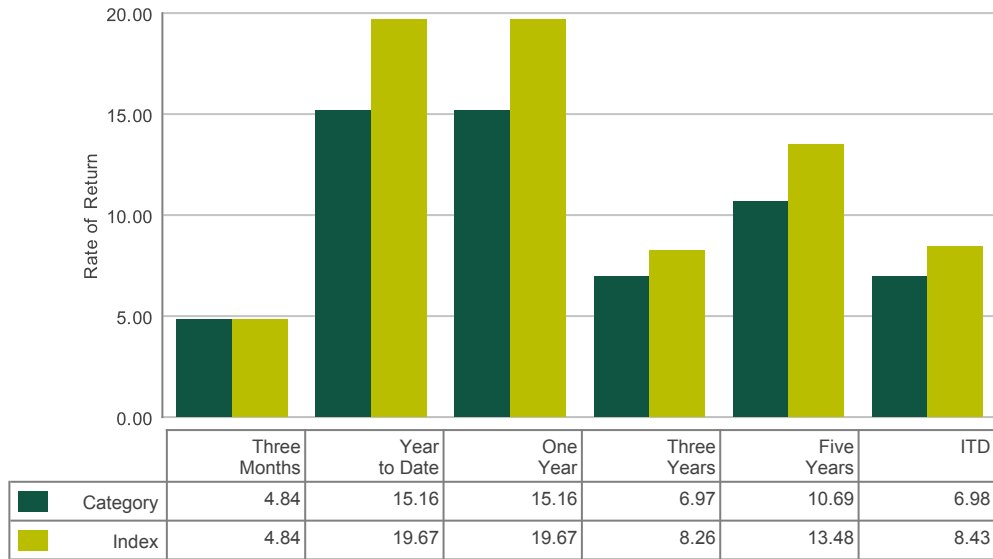
NORTH AMERICA



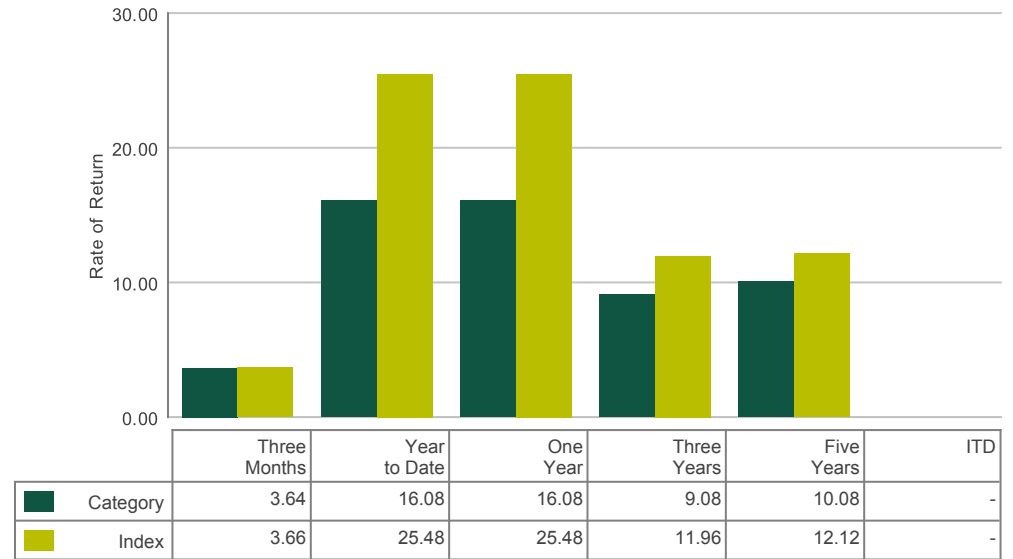
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	9.07	29.37	29.37	18.19	16.76	5.67
Index	9.02	34.11	34.11	19.10	19.14	9.90

Historical Performance

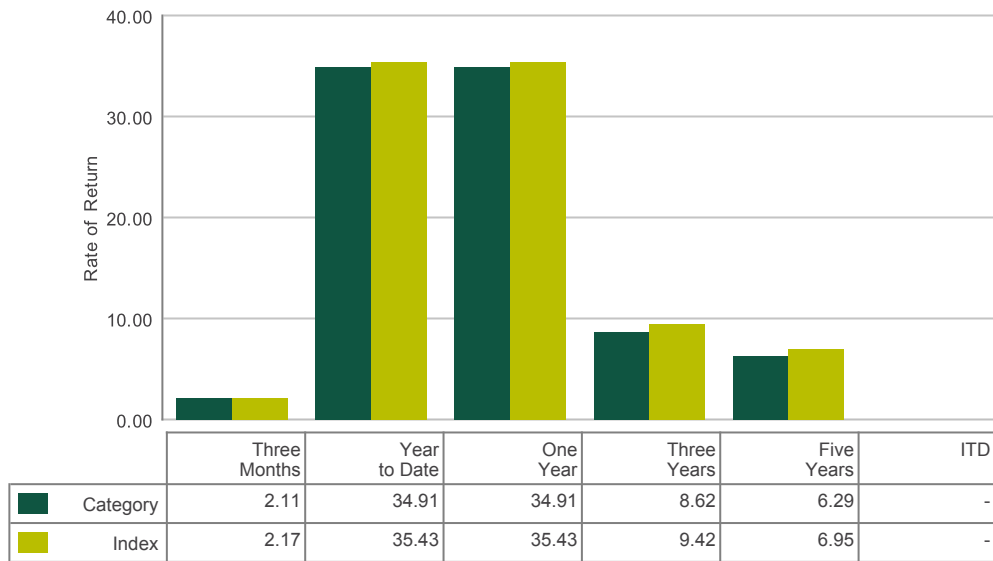
EUROPE EX UK



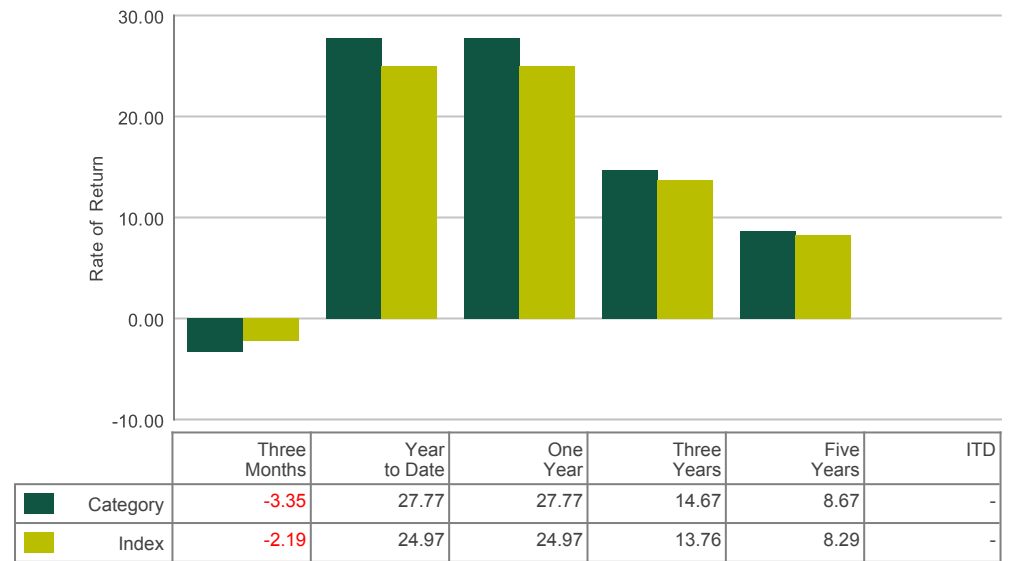
ASIA PACIFIC INC JAPAN



EMERGING MARKETS

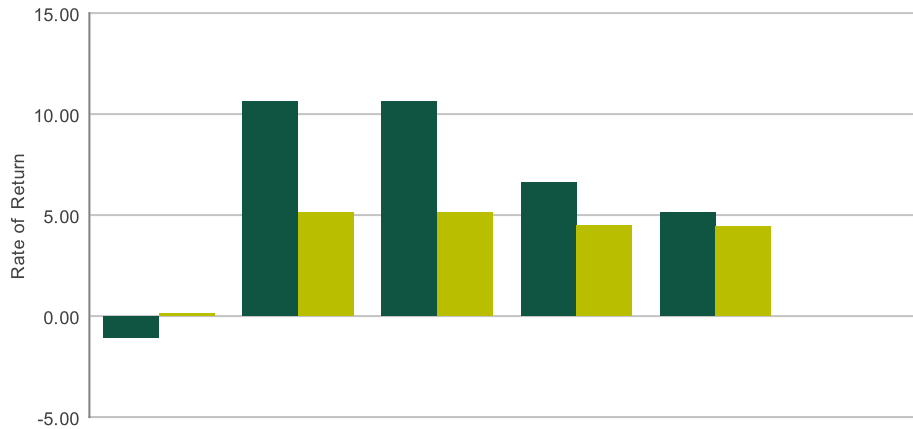


INDEX LINKED GILTS



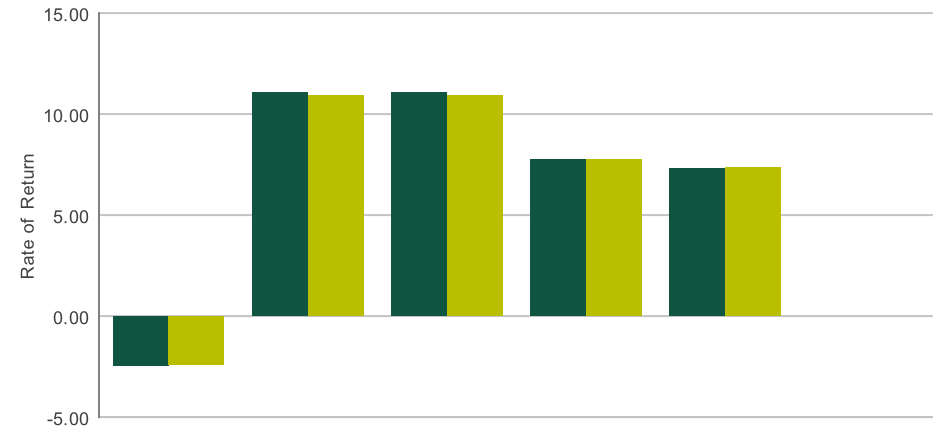
Historical Performance

FIXED INCOME



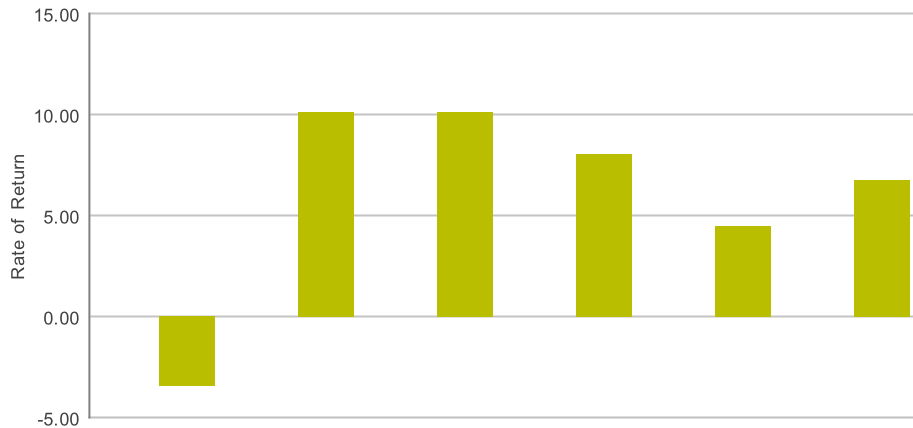
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-1.06	10.61	10.61	6.60	5.12	-
Index	0.14	5.14	5.14	4.48	4.44	-

CORPORATES



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-2.44	11.05	11.05	7.76	7.31	-
Index	-2.42	10.92	10.92	7.75	7.36	-

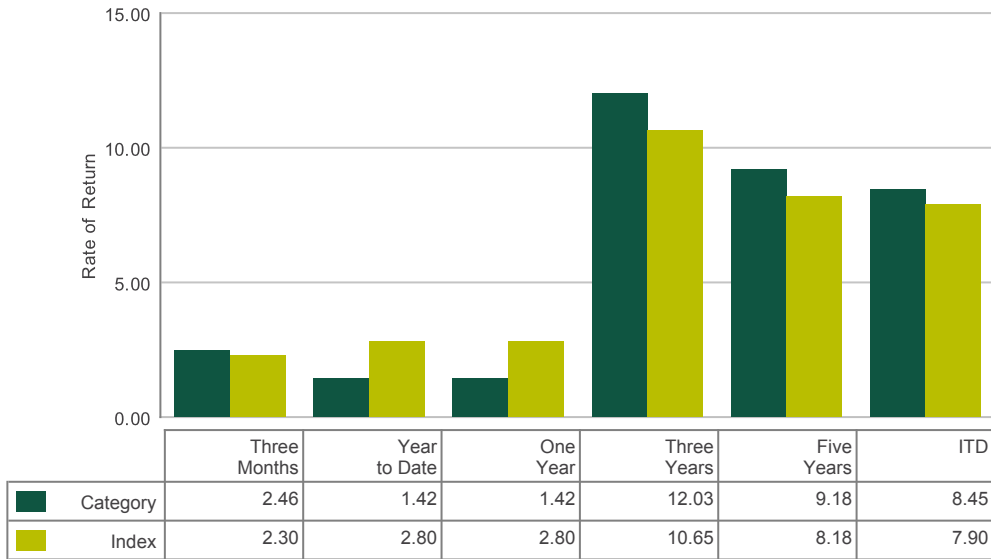
GOVERNMENT BONDS



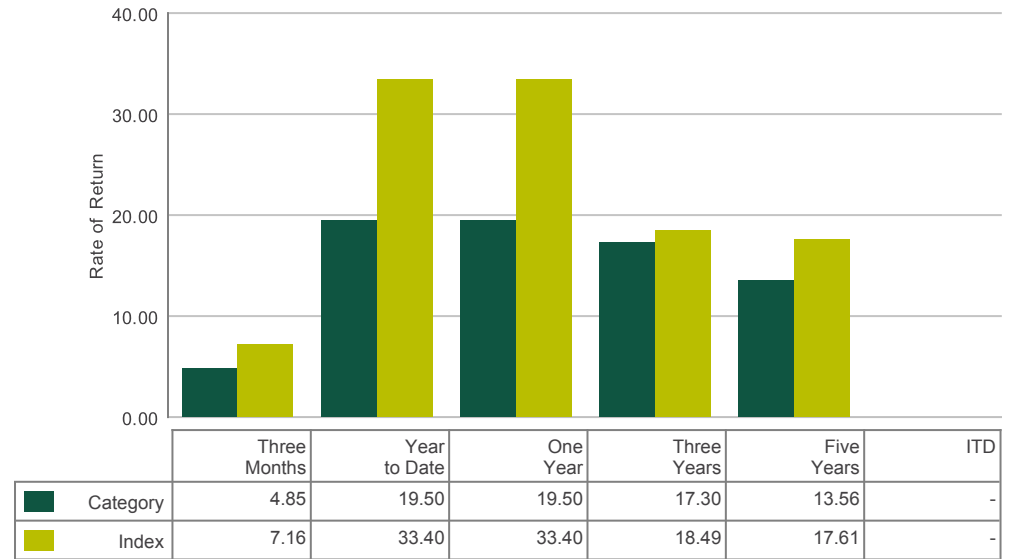
	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-	-	-	-	-	-
Index	-3.43	10.10	10.10	8.03	4.46	6.74

Historical Performance

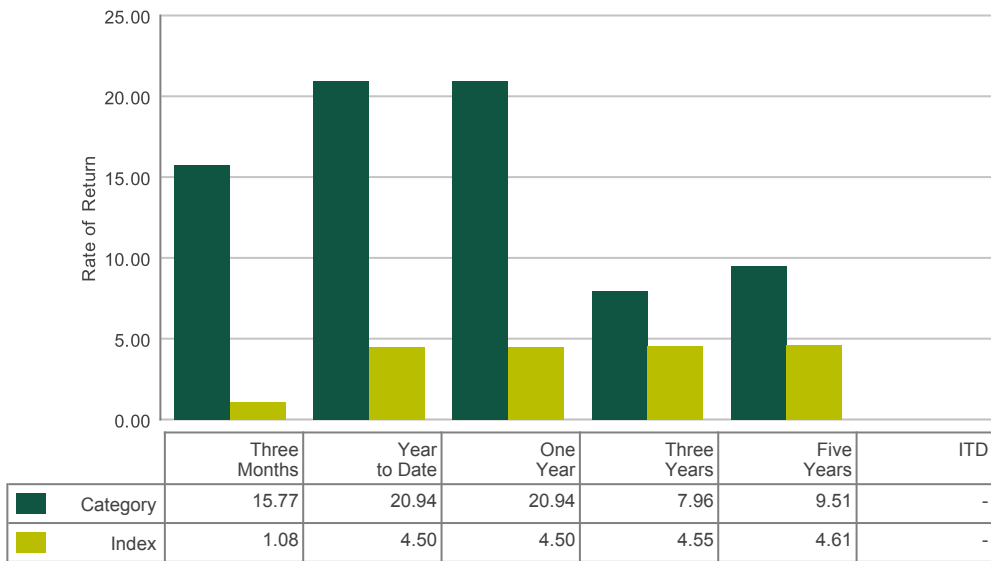
REAL ESTATES



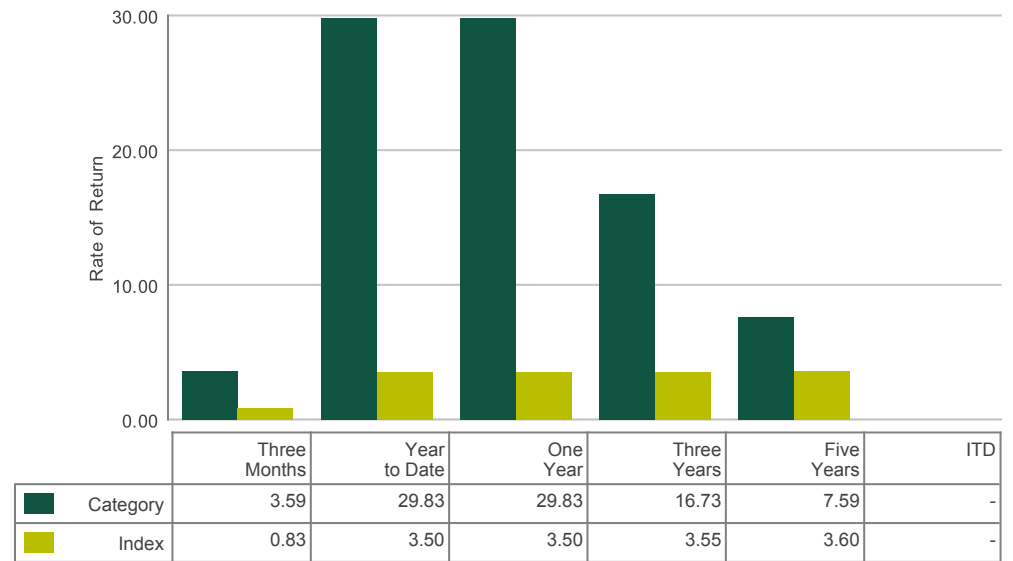
PRIVATE EQUITY



HEDGE FUNDS



INFRASTRUCTURE



Benchmark Composition

Total Plan Benchmark

22.02	FTSE All Share
2.31	FTSE North America
2.31	FTSE Developed Europe ex UK
1.39	FTSE Japan
0.93	FTSE Developed Asia Pacific ex Japan
0.64	FTSE All Emerging Markets
14.44	FTSE World Index +2%
3.07	FTSE Index Linked Gilts 15+ Years
2.21	FTSE Index Linked Gilts
1.63	iBoxx Sterling Non-Gilts
12.16	IPD UK PPI All Balanced Funds Index
7.06	LIBOR 3 Month + 3%
11.31	LIBOR 3 Month
7.65	LIBOR 3 Month + 4%
6.65	OECD CPI G7 (GBP) Index
3.32	MSCI All Countries World Index
0.89	FT 7 Day LIBID

AEW UK

100.0	IPD UK PPI All Balanced Funds Index
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GMO Global

100.0	OECD CPI G7 (GBP) Index
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JP Morgan

100.0	LIBOR 3 Month + 3%
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Legal & General

38.22	FTSE All Share
9.84	FTSE World North America
9.86	FTSE World Europe ex UK
5.94	FTSE Japan
3.96	FTSE Pacific Basin ex Japan
2.73	FTSE All Emerging Markets
13.07	FTSE Index Linked Gilts 15+ Years
9.43	FTSE Index Linked Gilts
6.95	iBoxx Sterling Non-Gilts

London CIV Ruffer

100.0	3 Month Sterling LIBOR
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M&G Investments

100.0	LIBOR 3 Month + 4%
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Macquarie

100.0	LIBOR 3 Month + 3%
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Newton

100.0	FTSE World Index +2%
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Permira Credit

100.0	LIBOR 3 Month + 4%
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UBS

100.0	FTSE All Share
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UBS Property

100.0	IPD UK PPI All Balanced Funds Index
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