

London Borough of Hillingdon

Investment Risk & Analytical Services

June 30, 2017

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Client Commentary

Total Scheme Commentary

Although the global economy continues to improve and the outlook remains positive, equity markets have slowed down as the year has gone on. The IMF warned at the G20 summit that greater co-operation would be required to safeguard that positive outlook even while their US growth forecast was cut on the diminishing probability of fiscal reform. Oil related stories have made headlines over the second guarter; Brent crude dropped below \$45 a barrel in June, the Saudi Aramco IPO caused concern at the London Stock Exchange that the sale of only 5% of the company fell short of the minimum 25% required for a listing. Repeating Q1, Oil & Gas lost most value over the guarter and Telecoms was the worst sector over one year. The strongest sectors over quarter and year respectively were Health Care and Technology. Oil ended June at \$48 per barrel, down again from \$56 at the end of 2016. The FTSE World was up by 0.5% over guarter two 2017 and returned 22.9% over the year. In the UK, concerns over rising inflation saw a surprisingly hawkish leaning towards raising interest rates amongst the Bank of England's Monetary Policy Committee members. CPI inflation, fuelled by last year's Sterling depreciation, has been pushed above the 2% target. The Bank expressed concerns of inflation rising above 3% by the autumn and they see it likely to remain above target as Sterling's fall continues to feed into prices of consumer goods and services. The shift in the balance at the Old Lady saw the 10 year Gilt finish the guarter at 1.26% up from 1.14% at the end of Q1, reversing what had otherwise been a gradual decline in rates over the guarter. For the guarter, the FTSE All Stock Index fell -1.29% and the ML Sterling Non-Gilts returned 0.47%.

Against this backdrop the London Borough of Hillingdon returned 0.94% which was a mere basis point less than the Total Plan benchmark of 0.95%. In monetary terms this is a growth in assets of £9 million and the value of the combined scheme now stands at £965.5 million as at 30th June 2017. This period withdrawals were made from M&G, Macquarie, UBS, Private Equity and Cash with the combined £12.3 million assigned to the Premira Credit mandate. Looking further into the analysis the results seen were caused by weights closely in line with the strategic position leading to a neutral allocation impact while minimal selection effects offset each other. Within selection the most notable effects were the positive impacts of Macquarie, LGT and AEW nullified by the negative impacts in UBS Property and Ruffer.

Driven by the positive results in the second half of 2016, the Scheme's one year return of 14.27% is 1.52% ahead of the benchmark of 12.55%. The largest impact comes from selection, the most significant in UBS UK Equity (+1.09%) coupled with Ruffer (+0.81%), although these are slightly offset by the negative effect from Newton (-0.91%). While allocation has a negative impact coming from overweighting Premira (-0.13%), while also overweighting AEW and underweighting LGT (both leading to -0.11%).

While over the longer periods, with twelve positive quarters over the last 5 years, the Scheme continues to outperform, producing a return of 9.60% over three year versus 8.96%. Then the excess increases to 0.84% for the 5 year period where we see figures of 10.33% versus 9.41% per annum. Then since inception in September 1995, the Fund remains ahead of target by 14 basis points with an annualised return of 7.19% against a target of 7.03%.

Manager Commentary

AEW UK

Over the second quarter AEW UK Property produced a growth of 3.41%, which was 1.08% above the IPD UK PPFI All Balanced Funds index figure of 2.30%. They remain ahead of target over the year so far, but driven by the result in Q3 2016 the rolling one year return of 6.56% against the benchmark of 7.46% translates as a -0.84% relative return. However, with positive absolute returns in all but one period and only four quarters in the red on a relative basis, growth ahead of benchmark is seen since the fund incepted. In those three years since June 2014, the fund return is 11.14%, leading to an outperformance of 1.15% when compared to the IPD figure of 9.98%.

JP Morgan

In the latest quarter JP Morgan produes a growth in assets of 1.24% leading to an outperformance of 0.39% when compared to the 0.85% target for the 3 Month LIBOR + 3% p.a. Then with good results in the five of the last six quarters, the one year return of 6.41% is ahead of the 3.58% target by 2.73%. Then over three and five years they post returns closer to the benchmark with figures of 3.79% vs 3.65% and 4.02% vs 3.62% respectively. Then in the 5 and a half years since the mandate funded their return of 4.20% is +51 basis points above the target return of 3.66% on an annualised basis.

Legal & General 1

Over the last three months the Legal & General No. 1 mandate post a return of 0.40% against 0.55% for the custom fixed weight blended benchmark, a slight underperformance of -15 basis points. In the short period since inception in October 2017, they return 5.73%, which is just -2 basis points down on the benchmark return 5.76%. Further analysis demonstrates the passive strategy with all funds neutral when compared to the benchmark weights and in line with their respective benchmark returns.

Legal & General 2

During February 2017 the new Legal & General mandate was funded, in it's first full quarter of investment they post a return of -0.06% against +0.16% for the custom fixed weight blended benchmark consisting of FTSE Global Equity Hedged and Emerging Markets, FTSE Index Linked 15+ years and iBoxx UK Non-Gilts. In the short period of just over 4 months since inception, they return 1.82% against 2.04% for the benchmark. The slight underperformance is due to the Emerging Equity and Corporate Bonds funds posting returns slightly below their benchmarks, while weights are matching leading to a minimal allocation impact.

Client Commentary (cntd)

Manager Commentary

London CIV Ruffer

This quarter assets within the London CIV Ruffer portfolio saw their first fall in value since Q3 2015, meaning the -0.45% return when compared to the LIBOR 3 Month GBP figure of 0.11%, leads to a relative return of -0.56%. However with the good results in 2016, the one year period exhibits a growth of 7.90% against the target of 0.57%. Then with this being only the fourth quarter in the red in the last five years, outperformance remains in the longer periods. This is seen in a three year return of 7.02% versus 0.65%, then similarly for the five years with figures of 7.20% against 0.67%, culminating in since inception (May 2010) figures of 6.17% versus 0.85% per annum, which translates as a relative return of 5.28%.

M&G Investments

In this period M&G offset the losses seen in Q1 by producing a return of 2.42% against the 3 Month LIBOR +4% p.a. target of 1.09%, demonstrating an outperformance of 1.31%. Coupled with the previous good results, the full year return leads the benchmark by 10.80%, coming from figures of 15.86% against 4.57%. Over the three and five year the account registers figures of 10.43% vs 4.64% and 9.11% vs 4.61% respectively; since inception (May 2010) return falls slightly to 7.30% pa whilst the benchmark is 4.70% pa. Although the since inception Internal Rate of Return moves further ahead of target with a figure of 8.54% opposed to the comparator of 4.43%.

Macquarie

Over the last three months, Macquarie produced a growth of 4.34%, against the 0.85% for the 3 Month LIBOR +3% p.a. this translates as an outperformance of 3.46%. With twelve consecutive quarters of positive absolute and relative returns, outperformance is seen in all longer periods. Over the rolling year a growth of 15.39% beats the target of 3.57% by 11.41%, the highest relative return over this period; similarly the three year result of 20.95% versus 3.64% also exhibits the best relative return at 16.70%. The annualised return over 5 years falls to 11.20%, but still ahead of the 3.61% seen for the benchmark; then since inception (September 2010) the 4.47% is just ahead of the target of 3.69%. Although the since inception Internal Rate of Return for this portfolio jumps to 13.19%, which is ahead of the benchmark figure of 3.63%.

Newton

In the second quarter of 2017 Newton produced a return of 0.96%, which was almost exactly the same as the 0.95% seen for the FTSE World Index +2%. This very slight positive relative does break the run underperformance, although they still fall -6.14% short of the benchmark over the year, generated from figures of 17.24% versus 24.91%. Then with only three other quarters in the black over the last twelve the three year return falls just short with figures of 16.87% versus 17.68%; then since inception in January 2013, the fund return of 14.63% falls short of the yardstick of 16.32% by -1.45% on an annualised basis.

Manager Commentary

Premira Credit

The Premira Credit Fund saw a growth of 1.41% over the second quarter of 2017, this compares favourably with the 3 Month LIBOR +4% p.a. target of 1.09%. This now means all four quarter's over the last year are ahead of target, leading to an outperformance of 6.26%, created from figures of 11.12% against 4.57%. Then since the start of December 2014 when the fund incepted, the fund posts a return of 9.60% against the benchmark of 4.59%, leading to a relative position of 4.79%.

UBS

During Q2 the UBS UK Equity investments returned of 1.44%, almost exactly the same as the 1.42% for the FTSE All Share. Looking into the attribution analysis this slight outperformance was achieved through selection decisions, the most notable being the effects in Consumer services (+26 bps) and Industrials (+18 bps), while the largest negative impact comes from Basic Materials (-35 bps). This was offset by allocation, with the most significant being overweight both Basic Materials (-24 bps) and Oil & Gas (-19 bps), the largest positive due to also being overweight Industrials (+10 bps). With the previous good run of results they remain ahead over the one year, figures of 28.69% vs 18.12% translates as a relative return of 9.0%. This is attributable to both allocation and selection, the biggest impacts come from both overweighting Basis Materials (1.48%) and selection in the sector (2.08%), combined with the selection effect in Financials (2.05%); while the largest negative impact was once again the drag from the 3% cash exposure. This feeds into the longer time periods, with three and five years ahead of the index, culminating in a since inception (January 1989) return of 10.27% versus 8.91% on an annualised basis.

UBS Property

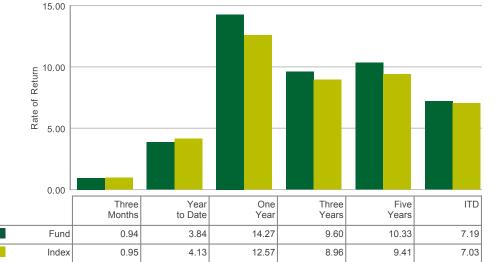
In contrast to the previous period, in the latest quarter the UBS Property posted their worse underperformance since the sub-prime crash in 2009 with -2.05%, generated from a return of 0.20% against the IPD UK PPFI All Balanced Funds index of 2.3%. This feeds into the one year deficit, with a full year return of 3.26% falling -2.56% behind the IPD target of 5.97%. However, the previous good run of results prior to the last year leads to high absolute returns staying ahead of the IPD target over the longer periods, peaking over the three year with a return of 10.31% against 9.47%. Then since inception, in March 2006, the fund return falls to 3.54% per annum which manages to stay just ahead of the benchmark figure of 3.53%.

Private Equity

Over the latest period saw a contrast for the private equity assets with just a 0.04% rise in value for Adam Street LGT saw a growth of 9.05%. Over the longer periods, the outlook over which private equity investments should be measured, returns remain positive. LGT maintain a run of over 3 years of growth with a figures of 22.71%, 21.34% and 51.80% for the one, three and five year periods respectively, while Adam Street posted 13.79%, 19.12% and 14.88% over the same periods; both exhibit some of the highest returns seen. Although they fall short of the proxy benchmark of MSCI AC World +4% p.a. which shows 26.82%, 19.66% and 18.35%. Then since their respective inceptions in January 2005 and May 2004, Adam Street drops to 6.45% pa, while LGT sees a slight dip to 11.04%.

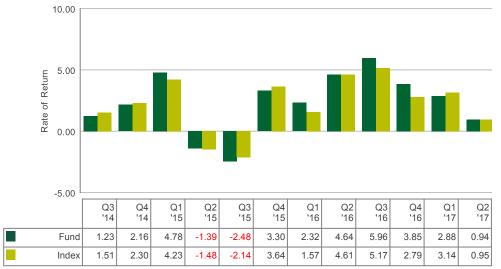
Executive Summary

LONDON BOROUGH OF HILLINGDON TOTAL FUND GROSS OF FEES



Index: Total Plan Benchmark

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES

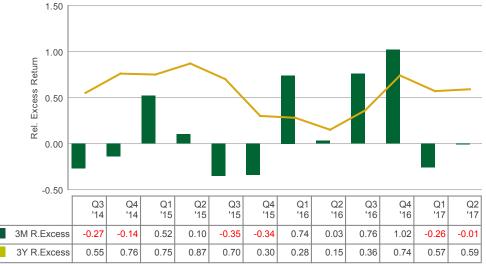


Index: Total Plan Benchmark

RISK STATISTICS	1 Yr	3 Yrs	5 Yrs
Return	14.27	9.60	10.33
Index Return	12.57	8.96	9.41
Relative Excess Return	1.51	0.59	0.84
Standard Deviation	4.44	5.11	5.06
Index Standard Deviation	3.82	4.78	4.73
Tracking Error	1.05	1.18	1.09
Information Ratio	1.63	0.55	0.84
Sharpe Ratio	3.09	1.75	1.91
Index Sharpe Ratio	3.14	1.74	1.85
Sortino Ratio	-	-	3.58
Treynor Ratio	12.05	8.61	9.23
Jensen's Alpha	-0.02	0.28	0.45
Relative Volatility (Beta)	1.14	1.04	1.05
R Squared	0.96	0.95	0.96

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

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES



Index: Total Plan Benchmark

Investment Hierarchy

			Three Months			Year to Date			One Year		
Account/Group -% Rate of Return	Ending Market Value GBP	Ending Weight	Port	Index	Relative Excess	Port	Index	Relative Excess	Port	Index	Relative Excess
London Borough of Hillingdon Total Plan Benchmark	965,479,421	100.00	0.94	0.95	-0.01	3.84	4.13	-0.27	14.27	12.57	1.51
AEW UK LBH22 AEW Benchmark	49,186,231	5.09	3.41	2.30	1.08	5.26	4.32	0.90	6.56	7.46	-0.84
JP Morgan LBH15 JPM LIBOR +3%pa	55,302,276	5.73	1.24	0.85	0.39	3.57	1.73	1.81	6.41	3.58	2.73
Legal & General 1 LBH26 L&G Benchmark	225,450,456	23.35	0.40	0.55	-0.15	4.84	4.84	-0.00	-	-	-
Legal & General 2 LBH27 L&G Benchmark	63,333,307	6.56	-0.06	0.16	-0.22	-	-	-	-	-	-
London CIV Ruffer LBH11 Ruffer BM LIBOR	103,981,030	10.77	-0.45	0.11	-0.56	-0.45	0.24	-0.68	7.90	0.57	7.29
M&G Investments LBH10 3 Month LIBOR +4%pa	20,598,047	2.13	2.42	1.09	1.31	0.61	2.22	-1.57	15.86	4.57	10.80
Macquarie LBH14 Macquarie LIBOR +3%pa	27,417,942	2.84	4.34	0.85	3.46	6.69	1.73	4.88	15.39	3.57	11.41
Newton LBH19 FTSE World Index +2%	139,271,739	14.43	0.96	0.95	0.01	5.71	7.29	-1.47	17.24	24.91	-6.14
Premira Credit LBH24 Premira LIBOR +4%pa	51,348,609	5.32	1.41	1.09	0.31	3.95	2.22	1.70	11.12	4.57	6.26
UBS LBH04 UBS Benchmark	129,475,421	13.41	1.44	1.42	0.03	4.28	5.50	-1.15	28.69	18.12	8.95
UBS Property LBH06 UBS Property Benchmark	69,581,120	7.21	0.20	2.30	-2.05	2.69	4.32	-1.56	3.26	5.97	-2.56
Adam Street Adam Street PE Bmark	16,591,599	1.72	0.04	1.48	-1.42	-1.62	8.35	-9.20	13.79	26.82	-10.27
LGT LGT PE Bmark	9,024,521	0.93	9.05	1.48	7.46	11.43	8.35	2.84	22.71	26.82	-3.24

NORTHERN TRUST

Investment Hierarchy(2)

		Three Years		Five Years				nception to Date		
			Relative			Relative			Relative	Inception
Account/Group -% Rate of Return	Port	Index	Excess	Port	Index	Excess	Port	Index	Excess	Date
London Borough of Hillingdon	9.60	8.96	0.59	10.33	9.41	0.84	7.19	7.03	0.14	30/09/1995
Total Plan Benchmark										
AEW UK	11.24	9.98	1.15	-	-	-	11.24	9.98	1.15	30/06/2014
LBH22 AEW Benchmark										
JP Morgan	3.79	3.65	0.13	4.02	3.62	0.39	4.20	3.66	0.51	08/11/2011
LBH15 JPM LIBOR +3%pa										
Legal & General 1	-	-	-	-	-	-	5.73	5.76	-0.02	31/10/2016
LBH26 L&G Benchmark										
Legal & General 2	-	-	-	-	-	-	1.82	2.04	-0.22	22/02/2017
LBH27 L&G Benchmark										
London CIV Ruffer	7.02	0.65	6.33	7.20	0.67	6.49	6.17	0.85	5.28	28/05/2010
LBH11 Ruffer BM LIBOR										
M&G Investments	10.43	4.64	5.53	9.11	4.61	4.30	7.30	4.70	2.49	31/05/2010
LBH10 3 Month LIBOR +4%pa										
Macquarie	20.95	3.64	16.70	11.20	3.61	7.33	4.47	3.69	0.75	30/09/2010
LBH14 Macquarie LIBOR +3%pa										
Newton	16.87	17.68	-0.69	-	-	-	14.63	16.32	-1.45	24/01/2013
LBH19 FTSE World Index +2%										
Premira Credit	-	-	-	-	-	-	9.60	4.59	4.79	30/11/2014
LBH24 Premira LIBOR +4%pa										
UBS	9.07	7.40	1.56	14.04	10.57	3.14	10.27	8.91	1.25	31/12/1988
LBH04 UBS Benchmark										
UBS Property	10.31	9.47	0.77	9.52	8.94	0.53	3.54	3.53	0.01	31/03/2006
LBH06 UBS Property Benchmark										
Adam Street	19.12	19.66	-0.45	14.88	18.35	-2.93	6.45	-	-	31/01/2005
Adam Street PE Bmark										
LGT	21.34	19.66	1.40	15.80	18.35	-2.15	11.04	-	-	31/05/2004
LGT PE Bmark										

Market Value Summary - Three Months

Account/Group	31/03/2017 Market Value	31/03/2017 Weight	Net Contribution*	Income	Fees	Appreciation	30/06/2017 Market Value	30/06/2017 Weight Cł	nange in Weight
London Borough of Hillingdon	956,496,312	100.00	-8,411	3,423,635	8,515	5,567,885	965,479,421	100.00	0.00
AEW UK	47,565,189	4.97	-1	553,270	0	1,067,773	49,186,231	5.09	0.12
GMO Global	27,985	0.00	-27,986	1	0	0	0	0.00	-0.00
JP Morgan	54,622,301	5.71	0	0	0	679,975	55,302,276	5.73	0.02
Legal & General 1	224,558,272	23.48	-6,759	0	6,759	898,943	225,450,456	23.35	-0.13
Legal & General 2	63,374,228	6.63	-1,756	0	1,756	-39,165	63,333,307	6.56	-0.07
London CIV Ruffer	104,453,932	10.92	-2,404	-893	0	-469,605	103,981,030	10.77	-0.15
M&G Investments	23,822,576	2.49	-3,723,884	84	0	499,271	20,598,047	2.13	-0.36
Macquarie	27,651,020	2.89	-1,374,977	401,210	0	740,690	27,417,942	2.84	-0.05
Newton	137,948,370	14.42	0	0	0	1,323,368	139,271,739	14.43	0.00
Premira Credit	38,316,673	4.01	12,318,019	86,956	0	626,961	51,348,609	5.32	1.31
UBS	130,151,100	13.61	-2,500,000	1,769,194	0	55,126	129,475,421	13.41	-0.20
UBS Property	69,443,005	7.26	0	638,420	0	-500,305	69,581,120	7.21	-0.05
Adam Street	17,624,053	1.84	-1,011,476	0	0	-20,978	16,591,599	1.72	-0.12
LGT	9,455,636	0.99	-1,203,122	-1,303	0	773,311	9,024,521	0.93	-0.05
Cash & Other Assets	7,481,971	0.78	-2,474,064	-23,305	0	-67,478	4,917,124	0.51	-0.27
						Min -0.36			1.31 Max

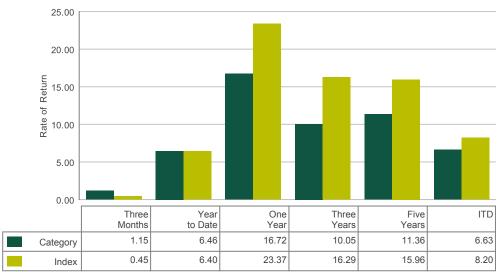
*Net Contributions include Cash Contributions/Distributions, Security Deliveries/Receipts, Fees/Fee Rebates, Inter Account transfers for Consolidations & Benefits Payments. Copied History or Backloaded Data may not display the correct Contributions/Withdrawals creating misrepresentation. **Historical Performance**

25.00 20.00 Rate of Return 10.00 5.00 0.00 Three Year One Three Five ITD Months to Date Year Years Years 1.26 5.78 20.10 9.56 12.42 Category 0.92 5.92 20.53 11.42 13.06 Index

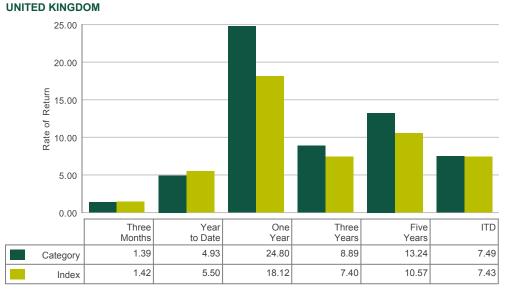
EQUITY



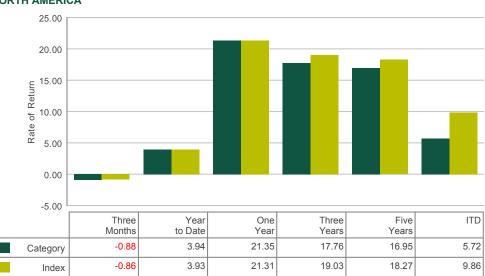
OVERSEAS EQUITIES



Index: Total O'seas Equity Benchmark



Index: FTSE All Share UK Equity



NORTH AMERICA

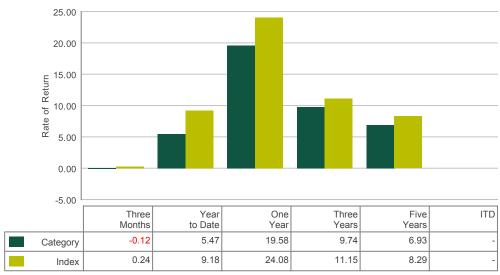
Index: FTSE North America

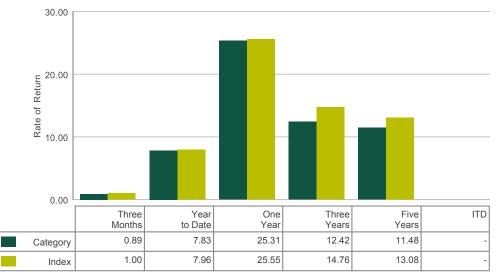
30.00 Rate of Return 00.00 00.01 0.00 Three Year One Three Five ITD Months to Date Year Years Years 4.72 12.40 28.52 10.22 13.52 7.39 Category 4.95 12.73 28.95 11.56 15.80 8.82 Index

Historical Performance

Index: FTSE AW Dev Europe ex UK

EMERGING MARKETS





ASIA PACIFIC INC JAPAN

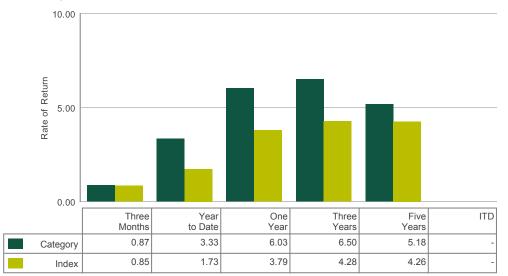
Index: FTSE AW Dev Asia Pacific

GLOBAL - NEWTON 25.00 20.00 Rate of Return 15.00 10.00 5.00 0.00 ITD Three Year One Three Five Months to Date Year Years Years 18.41 0.96 5.71 17.25 Category 24.91 0.95 7.29 17.68 Index

Index: LBH Emerging Markets

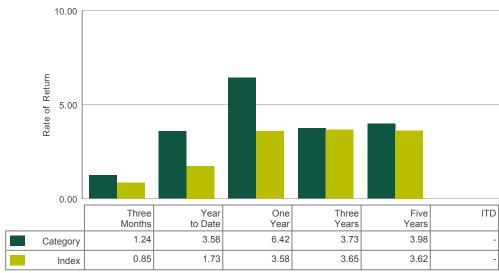
Index: FTSE World Index +2%

Historical Performance FIXED INCOME

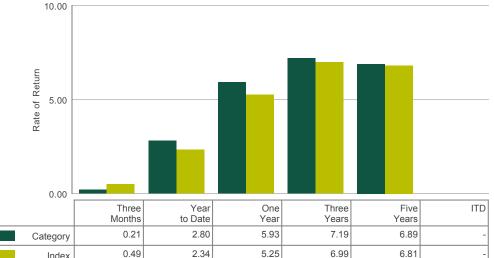


Index: LBH Fixed Income Benchmark

GLOBAL CORPORATE BONDS



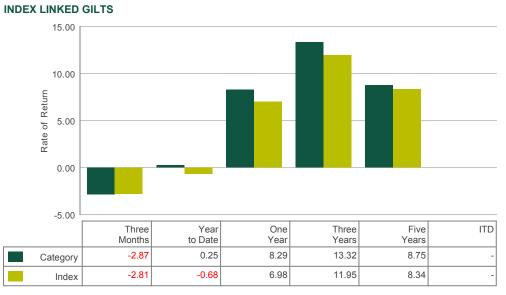
Index: LIBOR GBP 3 Month +3% pa



UK CORPORATE BONDS

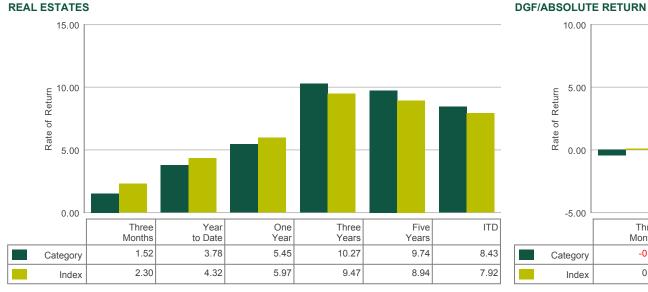
Index: LBH Non-Gilts Benchmark

Index



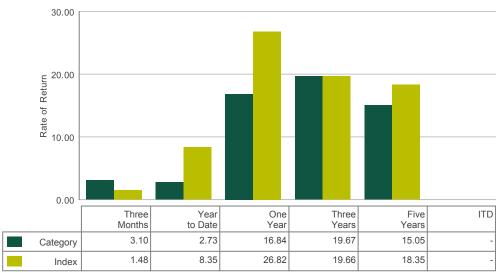
Index: LBH Index Linked Benchmark

Historical Performance REAL ESTATES

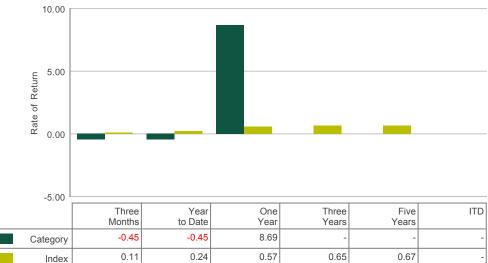


Index: IPD UK PPFI All Bal Funds Index

PRIVATE EQUITY



Index: MSCI ACWI +4% pa



Index: LIBOR GBP 3 Month

PRIVATE CREDIT 15.00 Rate of Return 200.01 0.00 ITD Three Year One Three Five Months to Date Year Years Years 8.81 1.75 2.73 14.17 9.73 Category 2.22 4.57 4.61 1.09 4.64 Index

Index: LIBOR GBP 3 Month +4% pa

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Benchmark Composition

Total Plan Benchmark

- 22.63 FTSE All Share
- 2.46 FTSE North America
- 2.32 FTSE Developed Europe ex UK
- 1.37 FTSE Japan
- 0.96 FTSE Developed Asia Pacific ex Japan
- 2.31 FTSE Emerging Markets
- 14.41 FTSE World Index +2%
- 4.81 FTSE Index Linked Gilts 15+ Years
- 1.80 FTSE Index Linked Gilts
- 3.25 iBoxx Sterling Non-Gilts
- 12.09 IPD UK PPFI All Balanced Funds Index
- 7.55 LIBOR 3 Month +3%
- 11.03 LIBOR 3 Month
- 6.39 LIBOR 3 Month +4%
- 1.63 FTSE AW Developed GBP Hedged
- 2.96 MSCI All Countries World Index +4%
- 2.03 FT 7 Day LIBID

AEW UK

- 100.0 IPD UK PPFI All Balanced Funds Index
- JP Morgan
 - 100.0 LIBOR 3 Month + 3%

Legal & General

- 38.75 FTSE All Share
 10.53 FTSE World North America
 9.92 FTSE World Europe ex UK
 5.88 FTSE Japan
 4.10 FTSE Developed Asia Pac ex Japan
 2.94 FTSE Emerging Markets
 13.34 FTSE Index Linked Gilts 15+ Years
- 13.34 FISE INDEX LINKED GITS 15+ FEC
- 7.72 FTSE Index Linked Gilts
- 6.82 iBoxx Sterling Non-Gilts

Legal & General

- 24.72 FTSE AW Developed GBP Hedged
- 24.52 FTSE Emerging Markets
- 25.67 FTSE Index Linked Gilts 15+ Years
- 25.09 iBoxx Sterling Non-Gilts

London CIV Ruffer

100.0 LIBOR 3 Month Sterling

M&G Investments

100.0 LIBOR 3 Month + 4%

Macquarie

100.0 LIBOR 3 Month + 3%

Newton

100.0 FTSE World Index +2%

Permira Credit

100.0 LIBOR 3 Month + 4%

UBS

100.0 FTSE All Share

UBS Property

100.0 IPD UK PPFI All Balanced Funds Index

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