



London Borough of Hillingdon

Investment Risk & Analytical Services

June 30, 2020

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Client Commentary

Total Scheme Commentary

Short term volatility became one of many new normals over quarter two. Markets rose then dropped then fell again and then rebounded strongly all in the course of a single week often based on one indicator proving positive only to be cited as negative the following day. Portfolio diversification has become more challenging but also more important than ever; 25% of market cap in the S&P500 is now represented by just 10 names. More importantly, 2% of stocks now represent 25% of the risk exposure in typical equity portfolios and those stocks are not well diversified, they are big tech companies that rely on ecommerce and cloud computing. The problem of diversification is set to become more challenging as well, survival for retailers necessitated a move to ecommerce supported by companies like Shopify that provide an operating system for traditional stores to market goods online. US consumers are predicted to spend \$710bn online this year, up almost 20%. Everything points to increased reliance on the same big tech companies for both work and life. The March correction has not reoccurred in Q2, the greatest risk to both economies and a return to normal life is a second wave of infections. Any evidence of an increase in virus cases caused markets to slide and subsequent rallies were based on stability and central bank promises of further support. Companies are submitting 2019 profits to lenders rather than break covenants regarding debt to earnings ratios that could trigger unwanted repayment requests and restructuring. Something undesirable to both lender and debtor alike. Cash has been pouring back into equity markets; inflows to equity funds in the UK hit a record high of £2.6bn in April. Global bond markets rebounded in quarter two following the market turmoil of the first quarter. Unprecedented levels of fiscal and monetary stimulus saw global responses by the central banks; the Fed launched bond purchase schemes up to \$750bn in the US, the ECB announced a 750bn Euro Pandemic Emergency Purchase Programme and the Bank of England decided to reopen its corporate bond purchase scheme. Whilst equity markets displayed some bounce back during quarter two, negative returns remained over the year to date periods. Fixed income markets in comparison fared better and the Barclays Global Aggregate returned positive returns in excess of +3% over the quarter. The year to date shows double digit growth over 10%. In the UK, Sterling fell further against the US Dollar, Euro and Japanese Yen. During their June meeting, and despite speculation around introducing negative rates, the BoE's Monetary Policy Committee voted unanimously to keep interest rates at their historic low of 0.1%. The MPC also expanded its government bond purchasing program by £100bn to a total of £745bn, however intimated that the UK's Q2 GDP contraction could be less severe than originally forecast.

Within this environment the London Borough of Hillingdon returned +8.04% which was behind the Total Plan benchmark of +9.04%. In monetary terms this is a gain in assets of £79.5 million and the value of the combined scheme now stands at £1,068 million as at 30th June 2020. The Scheme's one year return of -1.76% is 3.96% behind the benchmark of +2.29% following this quarters underperformance. While over the longer periods, despite nine positive quarters over the last 3 years, the Scheme has again underperformed, producing a return of 2.81% over three year versus 4.66%. Then the scheme continues to underperform over the 5 year period where we observe figures of 6.02% per annum (vs the benchmark 6.82%). Then since inception in September 1995, the Fund remains behind target by 9 basis points with an annualised return of 6.65% against a target of 6.74%.

Manager Commentary

AEW UK

The AEW UK Property Fund posted a total return of +0.54%, beating the the IPD UK PPF1 AI Balanced Funds Index in contrast to the underperformance seen last quarter. Rolling one year returns continue to see losses, with the mandate returning -15.24% versus -2.59% for the IPD Index

They continue to be behind over the three year period returning 1.25% against the benchmark of 3.40%. This translates as 2.09% relative underperformance. With positive absolute returns in all but two periods and four quarters in the red on a relative basis, growth is observed but behind benchmark over three years. Since the funds inception date of July 2014, the fund return is 6.13%, leading to an underperformance of approx 0.5% when compared to the IPD figure of 6.64%.

JP Morgan

In the latest quarter JP Morgan posted an increase in assets of +6.55% leading to an outperformance of +5.45% when compared to the 1.04% target for the 3 Month LIBOR + 3% p.a. Then with positive results in three of the last four quarters, the one year return of +1.85% is in positive territory and is behind the 4.00% target by over 2%. Then over three years they post returns behind the benchmark with figures of 2.70% vs 3.87%. Since the mandate funded their return of 3.68% is just behind the target return of 3.73% on an annualised basis.

Legal & General 1

There was a reorganisation of assets in both Legal & General 1 and 2 portfolios towards the end of 2018. Equity assets were moved to the No 1 account and fixed income to the No2 account. LGIM portfolio now represent almost 22% of the scheme as of 30th June 2020. Over the last three months the Legal & General No. 1 mandate post a return of +19.1% in line with the custom fixed weight blended benchmark. In the period since inception in October 2016, they return 6.1%, which is just below the benchmark return of 6.2%.

Legal & General 2

The No 2 Legal & General mandate returned +10.32% against +11.28% for the second quarter against the custom fixed weight blended benchmark consisting of FTSE Index Linked 15+ years, FTSE Index Linked and iBoxx UK Non-Gilts. In the period since inception, they remain broadly in line with the benchmark returning 7.7% against 7.9% for the benchmark.

Client Commentary (cntd)

Manager Commentary

London CIV Ruffer

The absolute return strategies employed by London CIV Ruffer translated into a 606 basis point outperformance of the 3-mth Sterling LIBOR target. The investment is above the benchmark over all longer term periods. This is seen in a five year return of 3.42% versus 0.78%, then similarly for the since inception period (May 2010) figures of 5.18% versus 0.86% per annum, which translates as a relative return of over 4%.

M&G Investments

M&G posted further losses in Q2 by producing a return of -14.36% against the 3 Month LIBOR +4% p.a. target of 1.28%, demonstrating an underperformance of 15.45%. This is the second consecutive quarter of underperformance and the full year return remains behind the benchmark by 21.73%, coming from figures of -17.82% against 5.00%. Over the three and five year the account registers figures of -1.36% vs 4.87% and 3.18% vs 4.78% respectively; since inception (May 2010) returns improve to 4.65% pa whilst the benchmark is 4.75% pa. Although the since inception Internal Rate of Return moves further ahead of target with a figure of 7.83% opposed to the comparator of 4.60%.

Macquarie

Over the last three months, Macquarie produced gains of 0.95%, against the 1.04% for the 3 Month LIBOR +3% p.a. this translates as an underperformance of 0.08%. With eleven quarters of positive absolute returns and nine positive relative returns, outperformance is seen in all longer periods. Over the rolling year a growth of 7.84% beats the target of 4.00% by 3.70%, similarly the three year result of 11.72% versus 3.87% exhibits positive relative return at 7.56%. The annualised return over 5 years rises to 16.24%, and remains ahead of the 3.78% seen for the benchmark; then since inception (September 2010) the 6.65% is ahead of the target of 3.74%. Although the since inception Internal Rate of Return for this portfolio jumps to 12.60%, which is ahead of the benchmark figure of 3.72%.

UBS

During Q2 the UBS UK Equity investments returned +6.97%, trailing the +10.17% for the FTSE All Share. Looking into the attribution analysis this underperformance was due to sector positioning and selection effects. The most significant being the negative returns in Oil & Gas (-120bps) and weak performance in Consumer Services (-77bps), while the largest positive impact comes from Basic Materials (+78 bps). Glencore and Anglo American posted gains over quarter two and added a combined 216bps value add. Cash positions however detracted from relative performance.

The manager falls behind over the one year, stemming from figures of -25.42% vs -12.99% which translates as a relative return of 14.29%. This is largely attributable to selection effects, the biggest impacts come from both Financials (-365bps), Industrials (-225 bps) and Consumer Services (-250 bps). The longer time periods again show a poor picture, with three and five years behind the index, culminating in a since inception (January 1989) return of 8.42% versus 7.87% on an annualised basis.

Manager Commentary

Premira Credit

The Premira Credit Fund saw a reduction of -1.41% over the second quarter of 2020, this was behind the 3 Month LIBOR +4% p.a. target of 1.28%. The fund has outperformed in three of the last four quarter's although are behind target, recording an underperformance of 1.46%, created from figures of 3.47% against 5.00%. Then since the start of December 2014 when the fund incepted, the fund posts a return of 7.43% against the benchmark of 4.74%, leading to a relative position of over 2%.

UBS Property

The latest quarter for the UBS Property posted an underperformance of 0.25%, generated from a return of -2.25% against the IPD UK PPFI All Balanced Funds index of -2%. Over the one year the manager is behind the index, with a full year return of -3.56% vs -2.59%. The previous good run of results particularly during 2015 leads to high absolute returns staying just ahead of the IPD target over the five year periods with a return of 4.71% against 4.65%. Then since inception, in March 2006, the fund return falls to 3.43% per annum which is broadly in line with the benchmark.

Private Equity

The private equity assets saw a 12.68% fall in value for Adam Street. LGT also saw a decrease of 6.67%. 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 figures of 9.37% and 16.74% for the three and five year periods respectively, while Adam Street posted 8.32% and 12.13% over the same periods. Adam St are behind the proxy benchmark of MSCI AC World +4% p.a. over the three and five year period (which show double digit gains of 12.48% and 16.34%). LGT are ahead over the five year outperforming by 35bps. Then since their respective inceptions in January 2005 and May 2004, Adam Street drops to 6.81% pa, while LGT sees a more modest dip to 10.73%.

Epoch

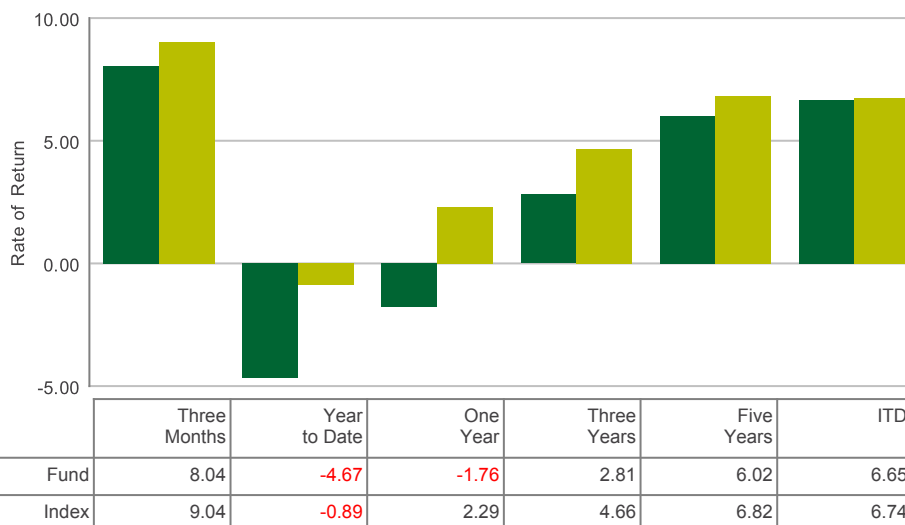
Over the second quarter the investment in Epoch's income equity fund generated a return of +12.38%. Since inception (November 2017) the fund has observed a modest rise in value 0.80% compared to the MSCI World figure of +7.05%, this leads to a relative return of approx -6%.

LCIV Infrastructure Fund

The LCIV Infrastructure fund was launched in quarter two and the valuation at 30th June was £3.7m

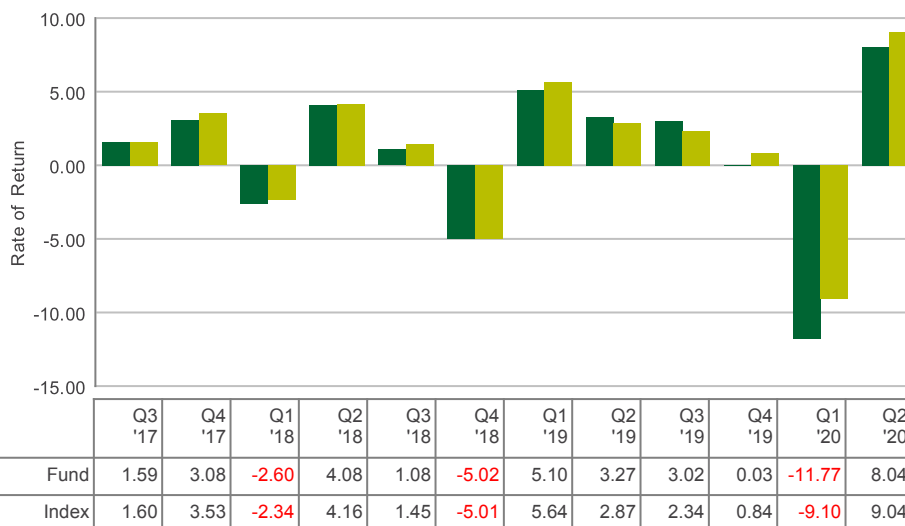
Executive Summary

LONDON BOROUGH OF HILLINGDON TOTAL FUND GROSS OF FEES



Index: Total Plan Benchmark

LONDON BOROUGH OF HILLINGDON ROLLING QUARTERS TOTAL FUND GROSS OF FEES



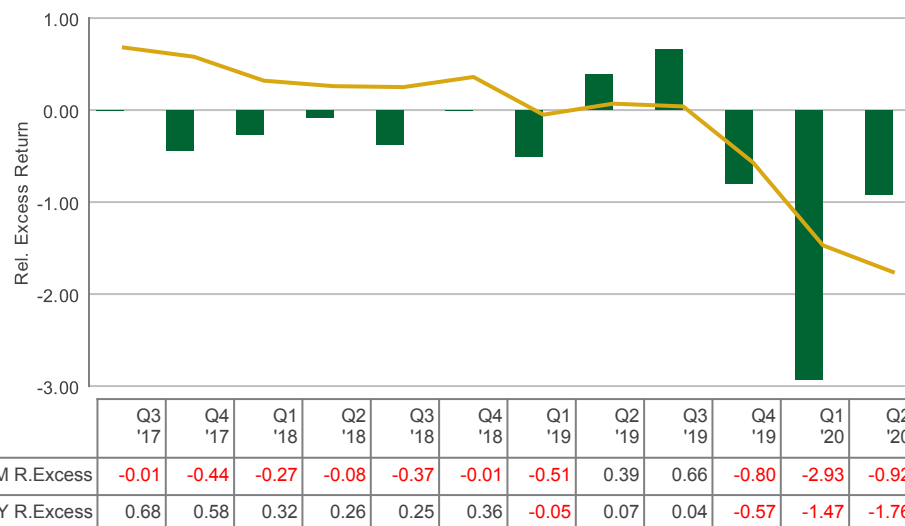
Index: Total Plan Benchmark

RISK STATISTICS

	1 Yr	3 Yrs	5 Yrs
Return	-1.76	2.81	6.02
Index Return	2.29	4.66	6.82
Relative Excess Return	-3.96	-1.76	-0.75
Standard Deviation	10.62	7.33	6.67
Index Standard Deviation	9.37	6.78	6.11
Tracking Error	2.04	1.46	1.46
Information Ratio	-1.99	-1.27	-0.55
Sharpe Ratio	-0.26	0.27	0.79
Index Sharpe Ratio	0.14	0.56	0.99
Sortino Ratio	-0.30	0.34	1.11
Treynor Ratio	-2.46	1.84	4.91
Jensen's Alpha	-4.03	-1.97	-1.12
Relative Volatility (Beta)	1.12	1.06	1.07
R Squared	0.97	0.96	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

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	1,068,523,947	100.00	8.04	9.04	-0.92	-4.67	-0.89	-3.82	-1.76	2.29	-3.96
Total Plan Benchmark											
AEW UK	51,046,931	4.78	0.54	-2.00	2.59	-16.21	-3.27	-13.37	-15.24	-2.59	-12.98
LBH22 AEW Benchmark											
JP Morgan	94,970,904	8.89	6.55	1.04	5.45	-0.09	2.05	-2.10	1.85	4.00	-2.07
LBH15 JPM LIBOR +3%pa											
Legal & General 1	232,475,107	21.76	19.06	19.13	-0.05	-2.62	-2.52	-0.10	3.73	3.87	-0.14
LBH26 L&G Benchmark											
Legal & General 2	156,330,300	14.63	10.32	11.28	-0.86	12.37	11.69	0.61	11.72	11.35	0.34
LBH27 L&G Benchmark											
M&G Investments	4,419,236	0.41	-14.36	1.28	-15.45	-20.17	2.54	-22.14	-17.82	5.00	-21.73
LBH10 3 Month LIBOR +4%pa											
Macquarie	27,121,903	2.54	0.95	1.04	-0.08	7.21	2.05	5.06	7.84	4.00	3.70
LBH14 Macquarie LIBOR +3%pa											
Premira Credit	63,474,761	5.94	-1.41	1.28	-2.66	-0.08	2.54	-2.56	3.47	5.00	-1.46
LBH24 Premira LIBOR +4%pa											
UBS	92,383,478	8.65	6.97	10.17	-2.91	-29.28	-17.51	-14.26	-25.96	-12.99	-14.91
LBH04 UBS Benchmark											
UBS Property	65,652,620	6.14	-2.25	-2.00	-0.25	-3.64	-3.27	-0.37	-3.56	-2.59	-0.99
LBH06 UBS Property Benchmark											
Adam Street	8,857,035	0.83	-12.68	20.75	-27.68	-2.00	2.78	-4.65	-2.84	9.47	-11.24
Adam Street PE Bmark											
LGT	3,427,914	0.32	-6.67	20.75	-22.71	-0.45	2.78	-3.14	-3.07	9.47	-11.45
LGT PE Bmark											
Epoch Investment P Income	144,687,852	13.54	12.38	19.78	-6.17	-9.17	1.03	-10.10	-5.40	5.93	-10.69
LBH11001 MSCI World ND											
London CIV Ruffer	59,121,573	5.53	6.38	0.30	6.06	4.29	0.56	3.71	8.43	1.00	7.35
LBH11003 Ruffer BM Libor											

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	2.81	4.66	-1.76	6.02	6.82	-0.75	6.65	6.74	-0.09	30/09/1995
AEW UK LBH22 AEW Benchmark	1.25	3.40	-2.09	4.67	4.95	-0.27	6.13	6.64	-0.48	30/06/2014
JP Morgan LBH15 JPM LIBOR +3%pa	2.70	3.87	-1.12	3.82	3.79	0.03	3.68	3.73	-0.06	08/11/2011
Legal & General 1 LBH26 L&G Benchmark	5.56	5.69	-0.12	-	-	-	6.13	6.24	-0.10	31/10/2016
Legal & General 2 LBH27 L&G Benchmark	8.02	8.22	-0.18	-	-	-	7.72	7.97	-0.23	22/02/2017
M&G Investments LBH10 3 Month LIBOR +4%pa	-1.36	4.87	-5.94	3.18	4.78	-1.52	4.65	4.75	-0.10	31/05/2010
Macquarie LBH14 Macquarie LIBOR +3%pa	11.72	3.87	7.56	16.24	3.78	12.00	6.65	3.74	2.80	30/09/2010
Pemira Credit LBH24 Pemira LIBOR +4%pa	5.60	4.87	0.70	7.15	4.78	2.27	7.43	4.74	2.57	30/11/2014
UBS LBH04 UBS Benchmark	-7.66	-1.56	-6.19	0.05	2.87	-2.74	8.42	7.87	0.52	31/12/1988
UBS Property LBH06 UBS Property Benchmark	3.02	3.40	-0.37	4.71	4.65	0.05	3.43	3.50	-0.07	31/03/2006
Adam Street Adam Street PE Bmark	8.32	12.48	-3.69	12.13	16.34	-3.62	6.81	-	-	31/01/2005
LGT LGT PE Bmark	9.37	12.48	-2.76	16.74	16.34	0.35	10.73	-	-	31/05/2004
Epoch Investment P Income LBH11001 MSCI World ND	-	-	-	-	-	-	0.80	7.05	-5.84	08/11/2017
London CIV Ruffer LBH11003 Ruffer BM Libor	2.85	0.86	1.97	3.42	0.78	2.62	5.18	0.86	4.28	28/05/2010

Market Value Summary - Three Months

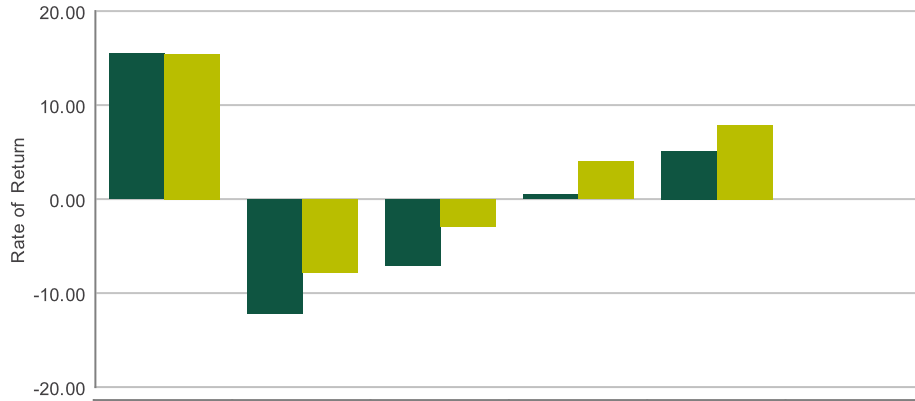
Account/Group	31/03/2020 Market Value	31/03/2020 Weight	Net Contribution*	Income	Fees	Appreciation	30/06/2020 Market Value	30/06/2020 Weight	Change in Weight
London Borough of Hillingdon	989,034,245	100.00	-9,481	3,179,300	9,481	76,319,884	1,068,523,947	100.00	0.00
AEW UK	50,774,104	5.13	0	562,581	0	-289,753	51,046,931	4.78	-0.36
JP Morgan	89,136,628	9.01	0	0	0	5,834,276	94,970,904	8.89	-0.12
Legal & General 1	195,267,217	19.74	-13,055	0	13,055	37,220,945	232,475,107	21.76	2.01
Legal & General 2	141,707,057	14.33	-2,766	0	2,766	14,626,010	156,330,300	14.63	0.30
M&G Investments	5,759,181	0.58	-523,209	446	0	-817,183	4,419,236	0.41	-0.17
Macquarie	27,222,341	2.75	-347,514	4,305	0	242,770	27,121,903	2.54	-0.21
Premira Credit	65,017,445	6.57	-628,000	0	0	-914,684	63,474,761	5.94	-0.63
UBS	87,351,992	8.83	-1,009,446	706,919	0	5,334,013	92,383,478	8.65	-0.19
UBS Property	67,602,390	6.84	-439,263	503,730	-6,340	-2,014,237	65,652,620	6.14	-0.69
Adam Street	11,203,069	1.13	-1,034,640	0	0	-1,311,395	8,857,035	0.83	-0.30
LGT	3,672,903	0.37	0	24	0	-245,013	3,427,914	0.32	-0.05
Cash & Other Assets	12,031,835	1.22	802,811	7,630	0	4,886	12,847,162	1.20	-0.01
Epoch Investment P Income	128,745,257	13.02	0	1,393,528	0	14,549,067	144,687,852	13.54	0.52
London CIV Ruffer	55,577,533	5.62	0	137	0	3,543,903	59,121,573	5.53	-0.09
Cash & Other Assets	0	0.00	0	0	0	0	0	0.00	0.00

Min -0.69  2.01 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

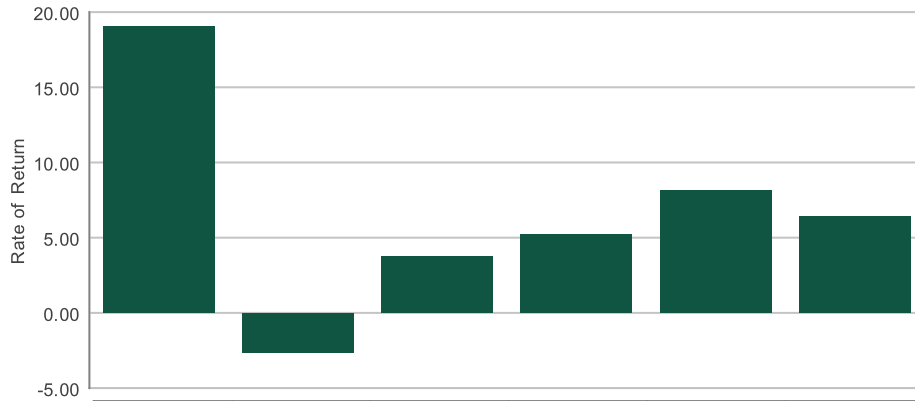
EQUITY



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	15.47	-12.19	-7.04	0.48	5.12	-
Index	15.44	-7.79	-2.91	3.96	7.89	-

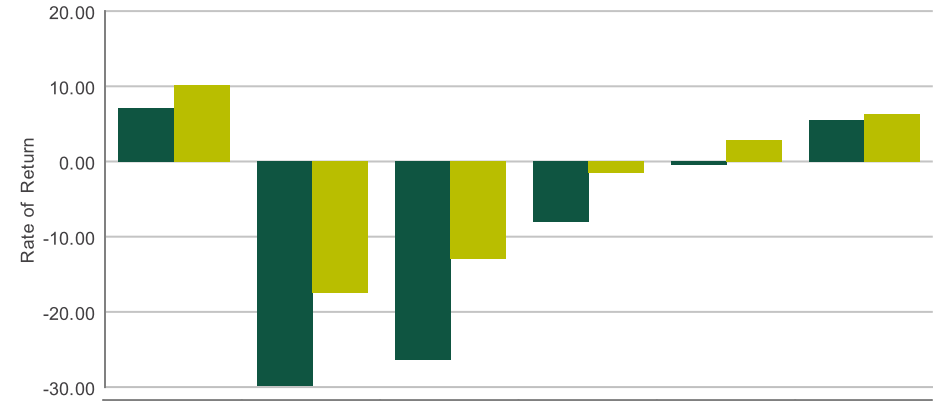
Index: Total Equity Benchmark

OVERSEAS EQUITIES



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	19.06	-2.61	3.73	5.21	8.16	6.45

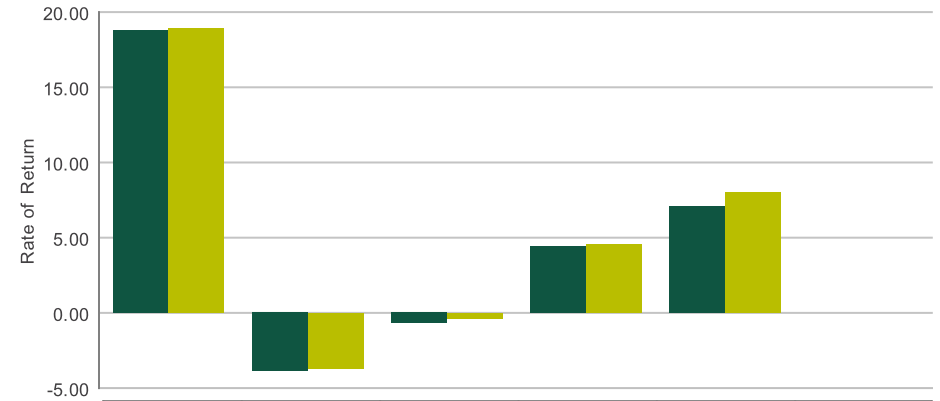
UNITED KINGDOM



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	7.15	-29.84	-26.46	-8.02	-0.45	5.48
Index	10.17	-17.51	-12.99	-1.56	2.87	6.30

Index: FTSE All Share UK Equity

EMERGING MARKETS

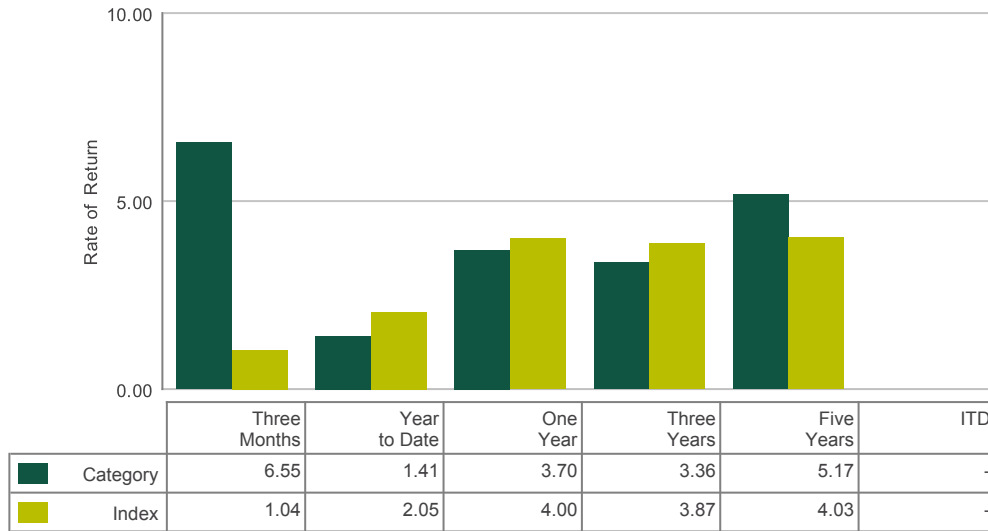


	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	18.75	-3.87	-0.67	4.40	7.06	-
Index	18.89	-3.71	-0.36	4.56	8.02	-

Index: LBH Emerging Markets

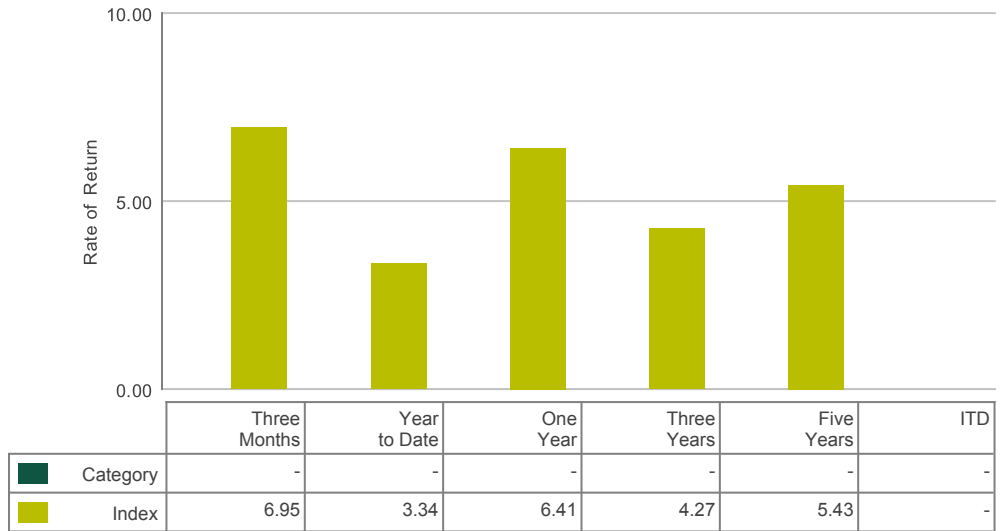
Historical Performance

FIXED INCOME



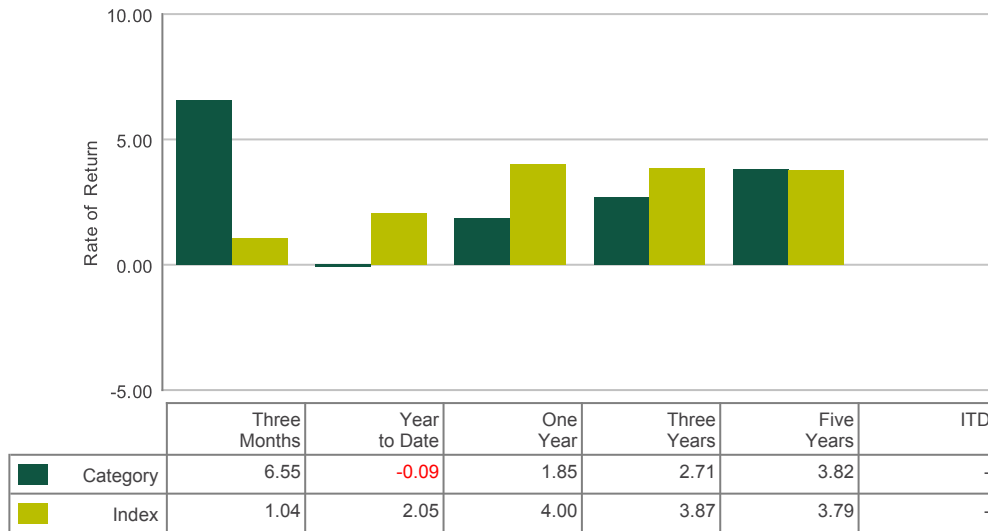
Index: LBH Fixed Income Benchmark

UK CORPORATE BONDS



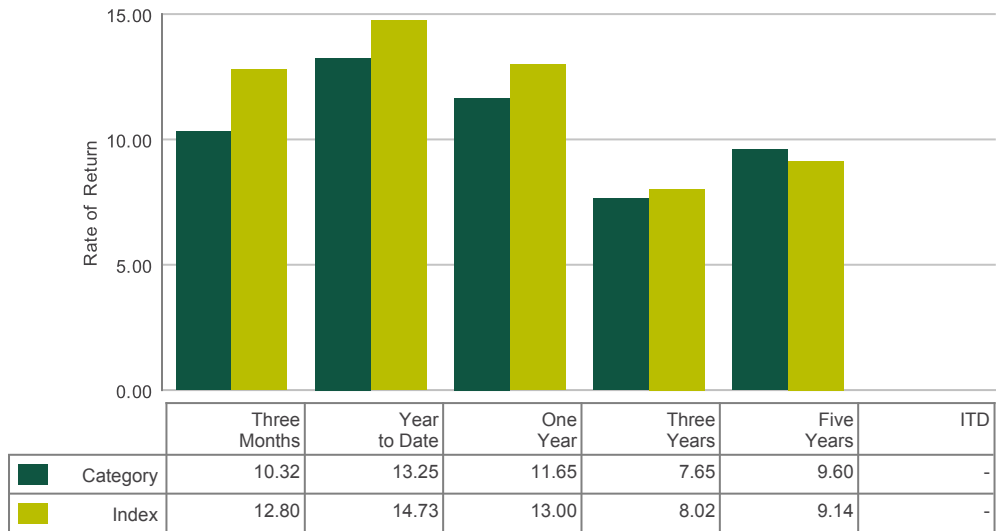
Index: LBH Non-Gilts Benchmark

GLOBAL CORPORATE BONDS



Index: LIBOR GBP 3 Month +3% pa

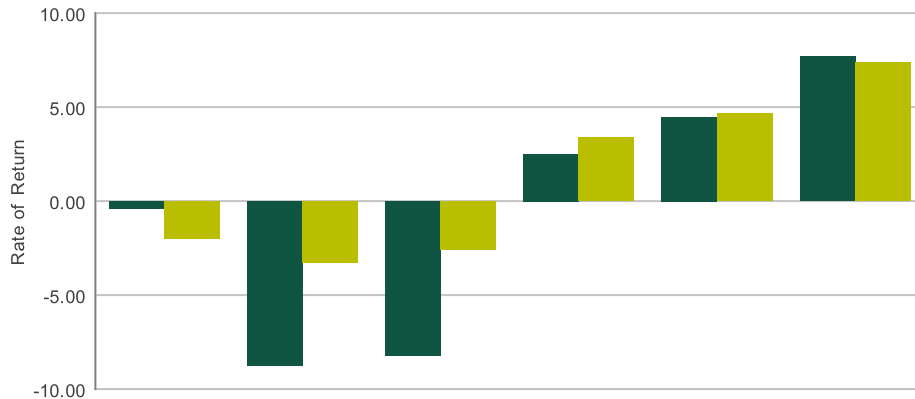
INDEX LINKED GILTS



Index: LBH Index Linked Benchmark

Historical Performance

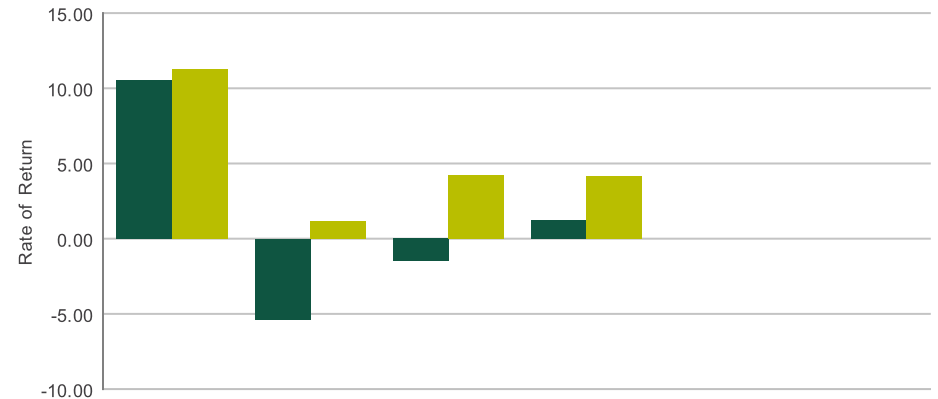
REAL ESTATES



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-0.41	-8.75	-8.22	2.51	4.47	7.70
Index	-2.00	-3.27	-2.59	3.40	4.65	7.36

Index: IPD UK PPF1 All Bal Funds Index

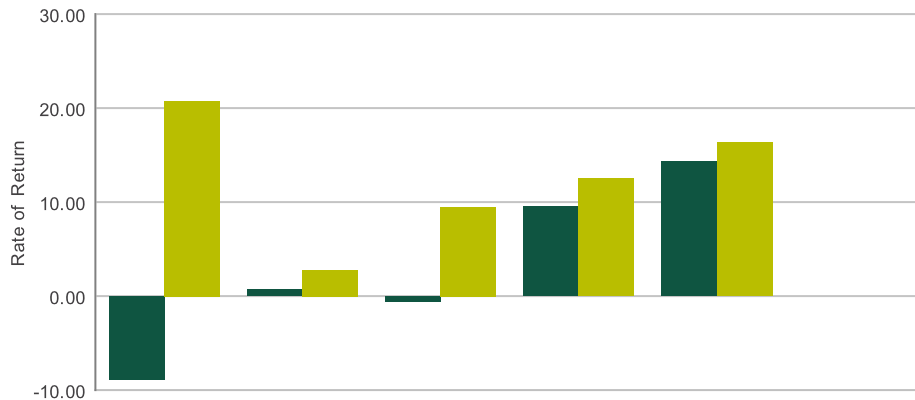
BALANCED FUNDS



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	10.57	-5.36	-1.49	1.22	-	-
Index	11.29	1.18	4.22	4.16	-	-

Index: Balanced Fund Benchmark

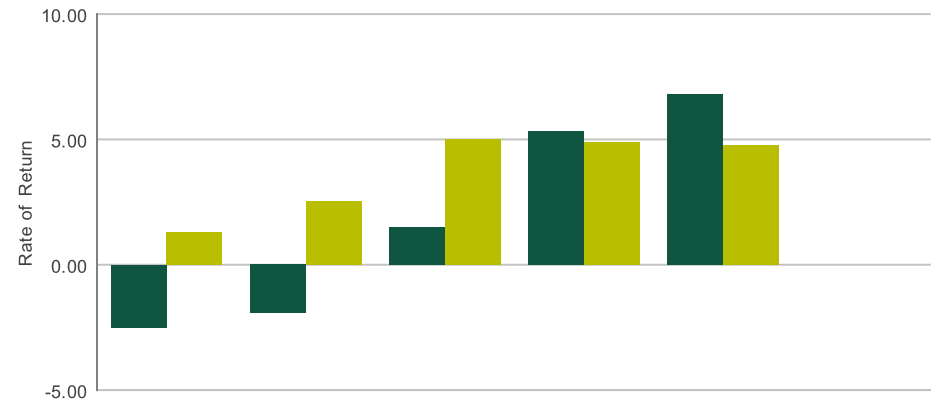
PRIVATE EQUITY



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-8.90	0.70	-0.61	9.55	14.28	-
Index	20.75	2.78	9.47	12.48	16.34	-

Index: MSCI ACWI +4% pa

PRIVATE CREDIT



	Three Months	Year to Date	One Year	Three Years	Five Years	ITD
Category	-2.50	-1.93	1.49	5.31	6.82	-
Index	1.28	2.54	5.00	4.87	4.78	-

Index: LIBOR GBP 3 Month +4% pa

Overall Fund BenchMark		
Index	Manager	%
FTSE All Share	UBS LGIM	12.04
FTSE World Developed Equity Index Currency Hedged	LGIM	8.17
FTSE World Developed Equity Index unHedged	LGIM	8.03
FTSE Emerging Markets	LGIM	2.96
IPD UK PPFi All Balanced Funds Index	UBS Property AEW	13.39
3 Month Libor +3%	JP Morgan Macquarie	10.53
MSCI World ND	Epoch/LCIV	13.47
3 Month Libor	Ruffer/LCIV	9.85
3 Month Libor +4%	M&G Permira	6.96
Markit iBoxx £ Non – Gilt	LGIM 2	3.11
FTSE A Govt Index – Linked (All Stocks)	LGIM 2	3.99
FTSE A Govt Index – Linked (Over 15 Year	LGIM 2	4.88
	Non Custody CashCash	0.81
MSCI All Countries World Index	Private Equity	1.79
		100.00

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