

London Borough of Hillingdon

Investment Risk & Analytical Services

September 30, 2016

Table of Contents

Section 1. London Borough of Hillingdon						
1.1. Client Commentary	3					
1.2. Client Commentary (cntd)	4					
1.3. Executive Summary	5					
1.4. <u>Investment Hierarchy</u>	6					
1.5. <u>Investment Hierarchy(2)</u>	7					
1.6. Market Value Summary - Three Months	8					
1.7. <u>Historical Performance</u>	9					
1.8. Benchmark Composition	13					
Section 2. Appendix	14					
2.1. <u>Disclaimer(s)</u>	14					

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Client Commentary

Total Scheme Commentary

As the guarter drew to a close OPEC agreed the first production cut in 8 years, boosting crude prices and energy stocks as well as oil exporting emerging markets. Overall it was a better quarter for equity markets, especially the US and Europe; while "Brexit Bounce" was hailed as the reason that UK equity markets ended Q3 ahead of their levels on referendum day despite the widely predicted catastrophe. Manufacturing continues to drag on the economy despite the falling exchange rate and a rebound in August. The UK unemployment rate fell to 4.9%, down from 5.5% over 1 year. UK Technology massively outperformed the other sectors over quarter three and the last year. Telecoms was the worst sector over 3 months and Financials gained least over one year. The FTSE All Share was up 7.8% over the third quarter and is now ahead over one year by 16.8%. The Fed was split 7-3 but left rates unchanged, although they look set to rise by the year end. Hiring and wage growth both lagged in August and growth in the Services sector dropped to its lowest in 6 years. US imports from China dropped during the quarter in a worrying turn for the main source of growth for emerging markets. Globally, Technology gained most value over both the quarter and the year, while Utilities lost most over the third quarter. The FTSE World was up by 8.3% (GBP) over quarter three 2016 and returned 31.2% (GBP) over the year. While the JP Morgan Government Bond Index returned 3.08% for the quarter and the Barclays Global Aggregate index returned 3.75%.

Against this backdrop the London Borough of Hillingdon returned 5.96% which leads to an outperformance of 77 basis points against the Total Plan benchmark of 5.16%. In monetary terms this is a growth in assets of £50.4 million and the value of the combined scheme now stands at £896.6 million as at 30th September 2016. This period £7.6 million was disinvested from the Newton global equity mandate and placed with AEW UK, while £2.5 million of distributions from Private Equity and M&G was transferred to Macquarie and the Cash Account. Looking further into the analysis the results seen were driven by selection effects, the most notable being Ruffer's impact of 67 bps, with UBS UK Equity adding a further 34 bps, this was partly offset by Newton, detracting -26 bps. While within allocation, there is a negative impact the most significant being underweight State Street Gilts, while overweighting Premira.

Continuing on from the a good start to 2016 the Scheme is ahead of the benchmark by 1.21% over the rolling one year period, coming from a return of 17.19% against the benchmark of 15.78%. The largest impact once again comes from selection in Ruffer (+1.19%) coupled with Macquarie (+0.54%), although these are slightly offset by the negative effects in Adam Street (-34 bps) and Premira (-21 bps). Similar to the quarter allocation has a negative impact coming from underweighting State Street Gilts and Newton, while overweighting Premira. While over the longer periods, the Scheme continues to outperform, producing a return of exactly 9% over three year versus 8.59%, while for 5 years we see figures of 10.22% versus 9.56% per annum. Then since inception in September 1995, the Fund remains ahead of target by 12 basis points with an annualised return of 7.07% against 6.94%.

Manager Commentary

AEW UK

In the latest period AEW UK Property wiped out all the previous quarter's absolute gains by returning -2.25%, relatively this is a -2.93% underperformance when compared to the IPD UK PPFI All Balanced Funds index figure of 0.70%. However, with positive absolute returns in every other 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 5.89% against the benchmark of 4.76% translates as a 1.07% relative return. Then in the short period since inception in June 2014, the fund return is 10.92%, leading to an outperformance of 0.57% when compared to the IPD figure of 10.29%.

GMO Global

In the third quarter the GMO Global mandate produced both it's highest absolute and relative returns with a growth of 3.16% leading to an outperformance of 2.99% when measured against the OECD CPI G7 (GBP) Index figure of 0.16%. This feeds into the full year numbers, with figures of 4.83% versus 0.98%, this generates an outperformance of 3.81%. However, driven by the Q3 2015 results, in the short period since the start of November 2014 when the fund incepted, a return of -0.47% against the benchmark of 0.63% leads to a shortfall of -1.10%.

JP Morgan

During the latest quarter JP Morgan produced their best figures since the first period of investing in Q1 2012 with growth of 3.08% leading to an outperformance of 2.15% when compared to the 0.91% target for the 3 Month LIBOR + 3% p.a. Coupled with the good results in the previous periods, longer time periods are all ahead of target, they exhibit outperformance of 5.29% and 0.72% over the one and three years respectively. While since November 2011 their return of 4.18% is 51 basis points above the target return of 3.64% on an annualised basis.

London CIV Ruffer

This quarter the London CIV Ruffer portfolio produced a 6.21% return, compared to the LIBOR 3 Month GBP figure of 0.16%, this demonstrates the highest relative return this period of 6.05%. This is now four consecutive quarters of positive absolute and relative returns, meaning the one year period exhibits a growth of 11.68% against the target of 0.61%. Then with only 2 quarter's in the red in the last four years, outperformance remains in the longer periods. This is seen in a three year return of 6.71% versus 0.57% increasing to 7.41% against 0.66% over five years, culminating in since inception (May 2010) figures of 6.66% versus 0.68% per annum, which translates as a relative return of 5.94%.

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Client Commentary (cntd)

Manager Commentary

M&G Investments

Over the last three months M&G posted a return of 1.40%, this is 31 basis points above the 3 Month LIBOR +4% pa target of 1.09%. Driven by the previous quarter's good result, all longer periods are ahead of target, leading to one year figures of 6.53% against 4.55%. Over the three and five year the account registers figures of 6.80% vs 4.56% and 6.44% vs 4.64% respectively; since inception (May 2010) return falls slightly to 5.95% pa whilst the benchmark is 4.68% pa. Although the since inception Internal Rate of Return moves further ahead of target with a figure of 6.66% opposed to the comparator of 4.43%.

Macquarie

In the latest quarter, Macquarie produced a growth of 4.71%, against the 0.85% for the 3 Month LIBOR +3% pa translates as an outperformance of 3.83%. With nine consecutive quarters of positive absolute and relative returns the one year return of 29.59% beats the target of 3.55% by 25.15%, the highest relative return over this period. Then while three and five years remain ahead, they fall below the target since inception (September 2010), a shortfall of -0.30%, derived from a return of 3.35% against the target of 3.67%. Although the since inception Internal Rate of Return for this portfolio jumps to 13.12%, which is ahead of the benchmark figure of 3.58%.

Newton

In the third quarter of 2016 Newton produced a return of 6.93%, although this was a relative return of -1.74% when compared to the 8.83% seen for the FTSE World Index +2%. Driven by the good results seen in Q1, they still post outperformance of 3.69% over one year, this is generated from the highest absolute return of the period at 38.33% against 33.41%. Although with nine underperforming quarters over the last twelve the three year return falls just short with figures of 15.87% versus 16.02%; then since inception in January 2013, the fund return of 14.94% falls short of the yardstick of 15.54% by -51 basis points.

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 5.93%, while Adam Street posted 6.15%. 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 (only matched by Macquarie and UBS Property), Adam Street posts 18.16% and 21.32%, while LGT is 32.51% and 17.39% respectively. While over five years both see a slight fall with Adam Street at 14.41%, while LGT posts 12.29%. Then since their respective inceptions in January 2005 and May 2004, Adam Street drops to 6.24% pa, while LGT sees a slight dip to 10.43%.

At present no benchmark has been applied to these mandates.

Manager Commentary

Premira Credit

The Premira Credit Fund saw growth for the first time in 2016, meaning their 4.23% return compares favourably with the 3 Month LIBOR +4% p.a. target of 1.13% over the quarter, and the 3.39% seen for the year to date. Driven by the Q4 2015 results, the one year is well below target with figures of -6.94% versus 4.55%. However, comparable analysis will only be seen over a longer period, since the start of December 2014 when the fund incepted, the fund posts a return of 9.89%, while the benchmark shows 4.48%.

SSGA

The passive SSGA portfolio produced a quarterly return of 8.39%, just -3 basis points below the benchmark; further analysis confirms the passive nature with all categories aligned with their respective indices. So over the year they produce a 22.17% return, which falls -7 basis points short of the target, while over 3 years the return drops back to 9.66% pa which is just -4 basis points behind the benchmark. Since inception (November 2008) a return of 11.95% pa which exactly matches the benchmark, the passive nature is also demonstrated by the R squared and beta figures of 1, while the tracking error is just 0.22.

State Street Gilts

In the latest quarter the State Street Gilts mandate produced the highest absolute return seen this period, standing at 12.91%, just -2 basis points down on the FTSE Index Linked Gilts 15+ years Index. Then in the short period since the inception of the fund on the 4th March 2016, produce a return of 30.05%, which is -8 basis points below the index.

UBS

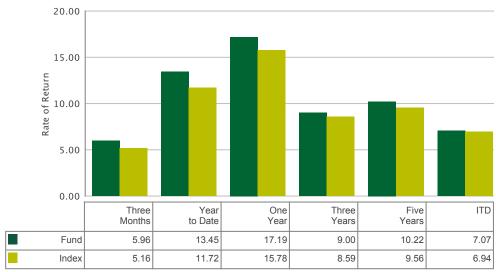
During Q3 the UBS UK Equity investments returned of 10.73% compared to the FTSE All Share figure of 7.78%, generating an outperformance of 2.74%. Looking into the attribution analysis, selection was the main driver with all but one sector showing positive effects, the most notable being the 0.79% from Basis Materials; within allocation, the slight positive impact came from overweighting Basis Materials (0.78%), however this effect was negated by also overweighting Oil & Gas (-0.49%). This feeds into the rolling one year, with figures of 20.28% vs 16.82% leading to a relative return of 2.96%. This is attributable to both allocation and selection, again the biggest impacts come from both overweighting Basis Materials (1.91%) and selection in the sector (1.79%); while the largest negative impact came from stock-picking in Financials (-0.81%). UBS fall short over the three year period, but then due to the previous good results, especially in 2013, maintain outperformance over the longer time periods, translating as a since inception return of 9.97% versus 8.80% on an annualised basis.

UBS Property

Over the latest period the UBS Property assets fell for the second consecutive quarter with a figure of -1.11%, which against the IPD UK PPFI All Balanced Funds index figure of -0.70%, translates as a relative return of -0.42%. With the previous good run of results, high absolute returns staying ahead of the IPD target remain over the longer periods, peaking over the three year with a return of 13.39% against 11.35%. Then since inception, in March 2006, the fund return falls to 3.38% per annum while the benchmark shows 3.15%, translating as an outperformance of 22 basis points.

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	9.00	10.22
Index Return	8.59	9.56
Excess Return	0.42	0.66
Standard Deviation	4.93	5.34
Index Standard Deviation	4.82	5.09
Tracking Error	1.09	1.09
Information Ratio	0.38	0.60
Sharpe Ratio	1.69	1.76
Index Sharpe Ratio	1.65	1.72
Sortino Ratio	-	3.16
Treynor Ratio	8.35	9.14
Jensen's Alpha	0.40	0.39
Relative Volatility (Beta)	1.00	1.03
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

				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	896,605,688	100.00	5.96	5.16	0.77	13.45	11.72	1.55	17.19	15.78	1.21
Total Plan Benchmark											
AEW UK	45,137,548	5.03	-2.25	0.70	-2.93	2.94	1.91	1.02	5.89	4.76	1.07
LBH22 AEW Benchmark											
GMO Global	61,075,639	6.81	3.16	0.16	2.99	3.40	1.36	2.00	4.83	0.98	3.81
LBH23 GMO Global											
JP Morgan	38,822,913	4.33	3.08	0.91	2.15	8.44	2.71	5.58	9.10	3.62	5.29
LBH15 BM JP Morgan BM											
London CIV Ruffer	102,365,365	11.42	6.21	0.15	6.05	10.40	0.46	9.89	11.68	0.61	11.01
LBH11 Ruffer Benchmark											
M&G Investments	41,202,749	4.60	1.40	1.09	0.31	6.29	3.39	2.80	6.53	4.55	1.90
LBH10 3 Month Libor GBP +4%Pa											
Macquarie	25,013,473	2.79	4.71	0.85	3.83	25.01	2.64	21.79	29.59	3.55	25.15
LBH14 Macquarie Libor +3%											
Newton	127,019,877	14.17	6.93	8.83	-1.74	25.46	22.97	2.02	38.33	33.41	3.69
LBH19 FTSE World Index +2%											
Premira Credit	29,402,350	3.28	4.23	1.09	3.10	4.23	3.39	0.81	-6.94	4.55	-10.99
LBH24 Premira											
SSGA	182,451,958	20.35	8.39	8.42	-0.03	16.89	17.00	-0.09	22.17	22.26	-0.07
LBH07 SSGA Benchmark											
State Street Gilts	27,969,143	3.12	12.91	12.93	-0.02	-	-	-	-	-	-
LBH25 FTSE Index Linked											
UBS	113,602,022	12.67	10.73	7.78	2.74	17.54	12.38	4.59	20.28	16.82	2.96
LBH04 UBS Benchmark											
UBS Property	70,107,135	7.82	-1.11	-0.70	-0.42	-0.29	0.49	-0.78	6.90	3.31	3.48
LBH06 UBS Property Benchmark											
Adam Street	19,034,640	2.12	6.15	-	-	17.90	-	-	18.16	-	-
LGT	10,558,250	1.18	5.93	-	-	26.57	-	-	32.51	-	-

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London Borough of Hillingdon | September 30, 2016

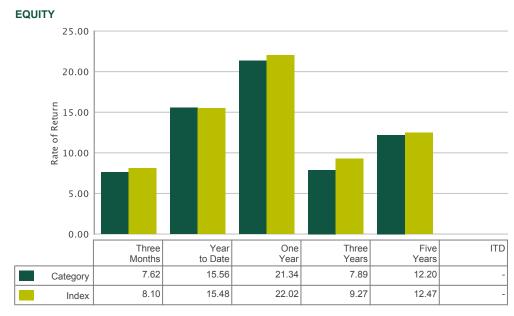
Investment Hierarchy(2)

		Three Years		Five Years		Inception to Date			_	
Account/Group -% Rate of Return	Port	Index	Relative Excess	Port	Index	Relative Excess	Port	Index	Relative Excess	Inception Date
London Borough of Hillingdon	9.00	8.59	0.38	10.22	9.56	0.60	7.07	6.94	0.12	30/09/1995
Total Plan Benchmark										
AEW UK	-	-	-	-	-	-	10.92	10.29	0.57	30/06/2014
LBH22 AEW Benchmark										
GMO Global	-	-	-	-	-	-	-0.47	0.63	-1.10	31/10/2014
LBH23 GMO Global										
JP Morgan	4.34	3.59	0.72	-	-	-	4.18	3.64	0.51	08/11/2011
LBH15 BM JP Morgan BM										
London CIV Ruffer	6.71	0.57	6.11	7.41	0.66	6.71	6.66	0.68	5.94	28/05/2010
LBH11 Ruffer Benchmark										
M&G Investments	6.80	4.56	2.14	6.44	4.64	1.72	5.95	4.68	1.21	31/05/2010
LBH10 3 Month Libor GBP +4%Pa										
Macquarie	16.73	3.56	12.72	3.84	3.64	0.19	3.35	3.67	-0.30	30/09/2010
LBH14 Macquarie Libor +3%										
Newton	15.87	16.02	-0.13	-	-	-	14.94	15.54	-0.51	24/01/2013
LBH19 FTSE World Index +2%										
Premira Credit	-	-	-	-	-	-	9.89	4.48	5.17	30/11/2014
LBH24 Premira										
SSGA	9.66	9.71	-0.04	11.95	12.02	-0.07	11.95	11.96	-0.00	30/11/2008
LBH07 SSGA Benchmark										
State Street Gilts	-	-	-	-	-	-	30.05	30.15	-0.08	04/03/2016
LBH25 FTSE Index Linked										
UBS	6.10	6.59	-0.45	13.30	11.05	2.03	9.97	8.80	1.07	31/12/1988
LBH04 UBS Benchmark										
UBS Property	13.39	11.35	1.84	9.12	7.94	1.09	3.38	3.15	0.22	31/03/2006
LBH06 UBS Property Benchmark										
Adam Street	21.32	-	-	14.41	-	-	6.24	-	-	31/01/2005
LGT	17.39	-	-	12.29	-	-	10.43	-	-	31/05/2004

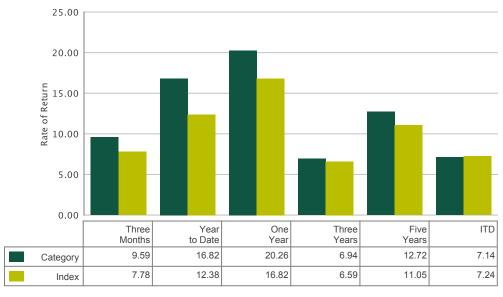
Market Value Summary - Three Months

Account/Group	30/06/2016 Market Value	Net Contribution*	Income	Fees	Appreciation	30/09/2016 Market Value
London Borough of Hillingdon	846,165,489	-3,125	3,342,207	3,125	47,101,117	896,605,688
Adam Street	19,148,428	-1,243,134	0	0	1,129,347	19,034,640
AEW UK	37,148,140	7,666,000	577,961	0	-254,553	45,137,548
Cash & Other Assets	1,278,087	1,523,754	554	0	40,231	2,842,625
GMO Global	59,206,319	0	0	0	1,869,320	61,075,639
JP Morgan	37,664,475	0	0	0	1,158,438	38,822,913
Kempen	5,648	-289,367	289,367	0	-5,648	0
LGT	10,861,970	-916,592	109	0	612,763	10,558,250
London CIV Ruffer	96,381,312	-0	1,818	0	5,982,236	102,365,365
M&G Investments	40,966,002	-332,759	815	0	568,691	41,202,749
Macquarie	22,601,659	1,321,620	-365	0	1,090,560	25,013,473
Newton	125,965,781	-7,620,000	93	0	8,674,003	127,019,877
Premira Credit	28,209,967	0	924,816	0	267,567	29,402,350
SSGA	168,335,825	0	0	0	14,116,133	182,451,958
State Street Gilts	24,772,180	0	0	0	3,196,963	27,969,143
State Street transition a/c	126,575	-108,815	-8,012	0	-9,749	0
UBS	102,593,396	0	895,567	0	10,113,059	113,602,022
UBS Property	70,899,026	-3,125	659,483	3,125	-1,448,249	70,107,135
UBS Tactical	700	-706	0	0	6	0

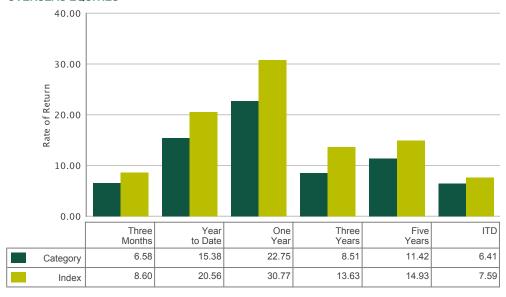
^{*}Net Contributions include Cash Contributions/Distributions, Security Deliveries/Receipts, Fees/Fee Rebates, Inter Account transfers for Consolidations & Benefits Payments. Copied History or Backloaded Data may not display the correct Contributions/Withdrawals creating misrepresentation.



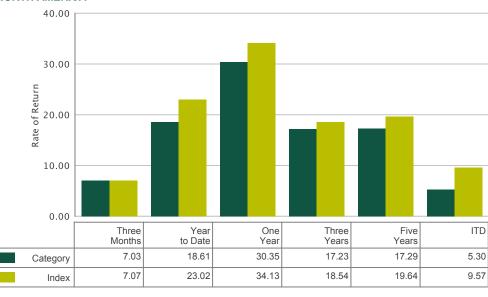
UNITED KINGDOM

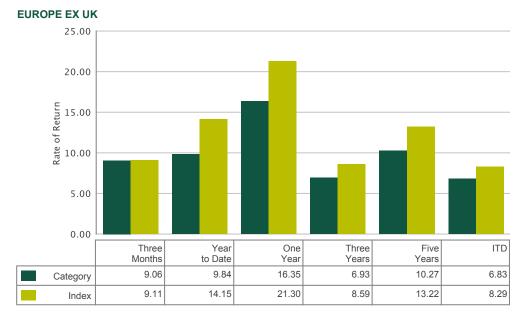


OVERSEAS EQUITIES

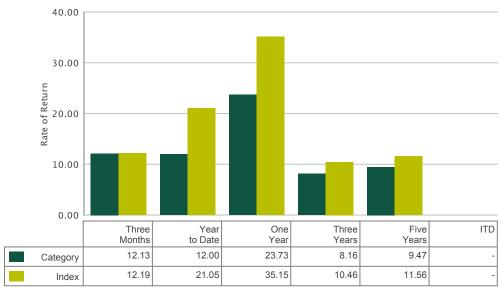


NORTH AMERICA

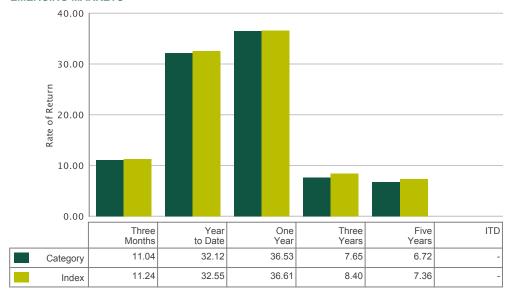




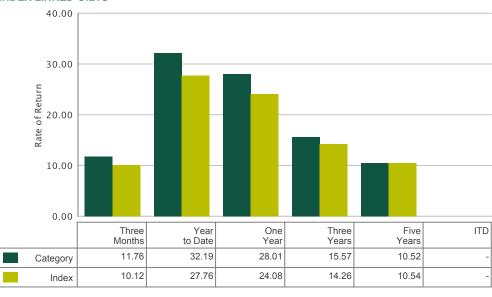
ASIA PACIFIC INC JAPAN

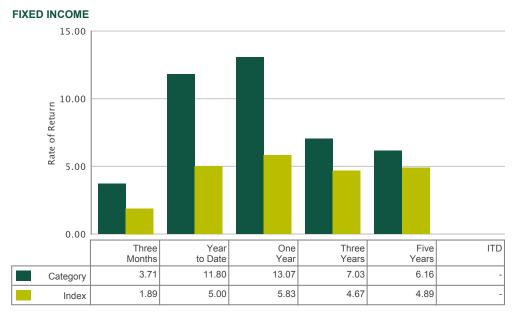


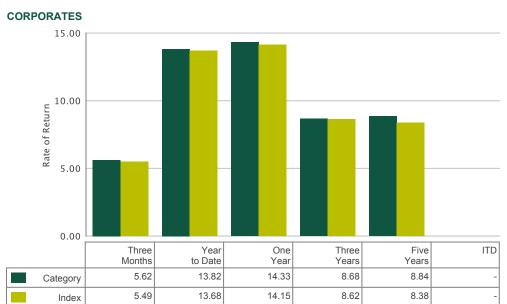
EMERGING MARKETS



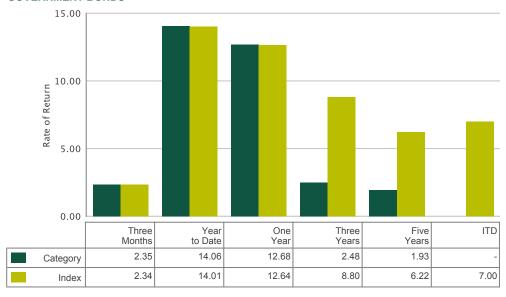
INDEX LINKED GILTS

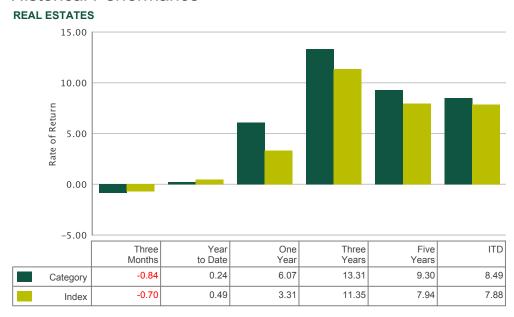






GOVERNMENT BONDS





PRIVATE EQUITY 40.00 30.00 Rate of Return 00.00 10.00 0.00 Three Year One Three Five ITD Months to Date Year Years Years 5.20 13.97 10.94 16.49 11.70 Category

35.50

17.70

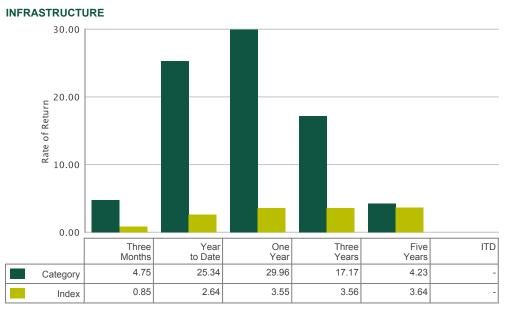
17.70

9.23

Index

24.49

HEDGE FUNDS 10.00 Rate of Return 0.00 ITD Three Year One Three Five Months to Date Year Years Years 1.55 4.46 4.10 2.76 6.08 Category 1.09 3.39 4.55 4.56 4.64 Index



Benchmark Composition

Total Pla	n Benchmark	AEW UK		Ruffer	
24.2	FTSE All Share	100.0	IPD UK PPFI All Balanced Funds Index	100.0	3 Month Sterling LIBOR
2.3	FTSE AW North America				
2.2	FTSE AW Developed Europe ex UK	GMO Glo	bal	SSGA	
2.2	FTSE AW Developed Asia Pacific	100.0	OECD CPI G7 (GBP) Index	44.0	FTSE All Share
0.6	FTSE All World All Emerging			11.0	FTSE World North America
14.1	FTSE World Index +2%	JP Morga	ın	11.0	FTSE World Europe ex UK
1.9	FTSE Index Linked Gilts	100.0	LIBOR 3 Month + 3%	11.0	FTSE Pacific Basin ex Japan
1.7	BC Sterling Aggregate 100mm Non Gilts			10.0	FTSE Index Linked Gilts
0.3	FTSE All Stock Index	M&G Inve	estments	8.5	ML Sterling Non-Gilts
10.3	IPD UK PPFI All Balanced Funds Index	100.0	LIBOR 3 Month + 4%	3.0	FTSE All World All Emerging
6.0	LIBOR 3 Month + 3%			1.5	FTSE Gilts All Stocks
11.9	LIBOR 3 Month	Macquar	ie		
4.7	MSCI All Countries World Index	100.0	LIBOR 3 Month + 3%	State Stre	et Gilts
4.3	FTSE Index Linked Gilts 15+ Years			100.0	FTSE Index Linked Gilts 15+ Years
8.6	OECD CPI G7 (GBP) Index	Newton			
4.7	LIBOR 3 Month + 4%	100.0	FTSE World Index +2%	UBS	
				100.0	FTSE All Share
		Permira C	Credit		
		100.0	LIBOR 3 Month + 4%	UBS Prope	erty
				100.0	IPD UK PPFI All Balanced Funds Index

NORTHERN TRUST London Borough of Hillingdon | September 30, 2016

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