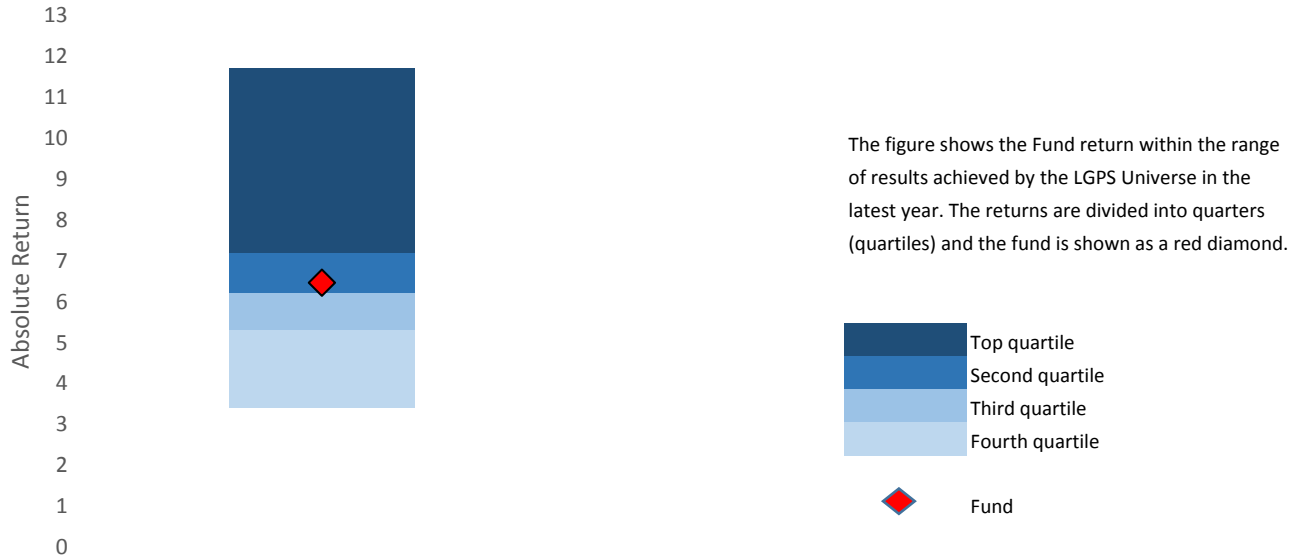


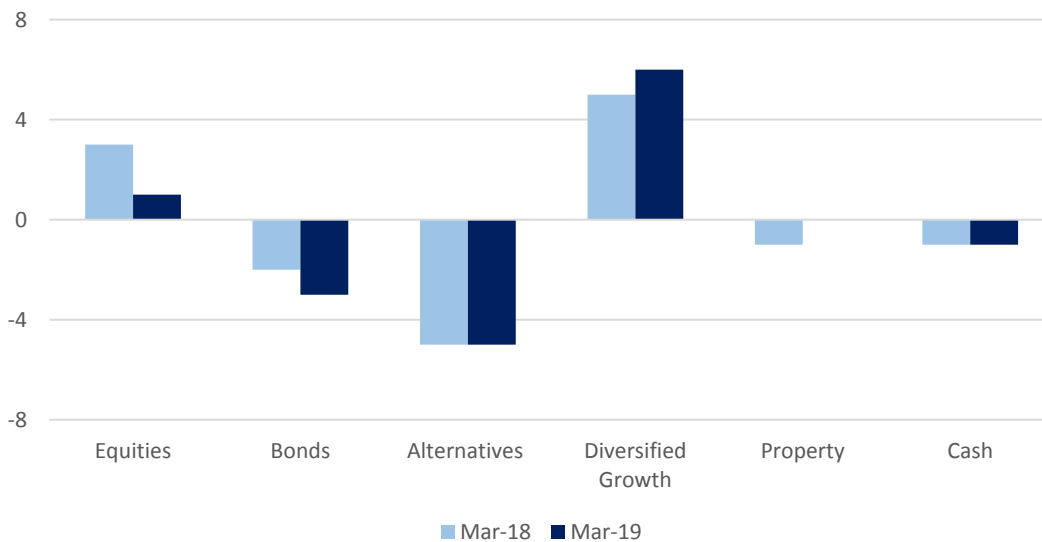
London Pension Funds Performance - Latest Year

- In the latest year the London Funds produced an aggregate return of 6.5%.
- This was in line with the Universe average, ranking 45th percentile.
- Within this group there was a wide range of returns achieved-from 3.4% (ranking 100th percentile) to 10.9% (2nd percentile).



Asset Allocation

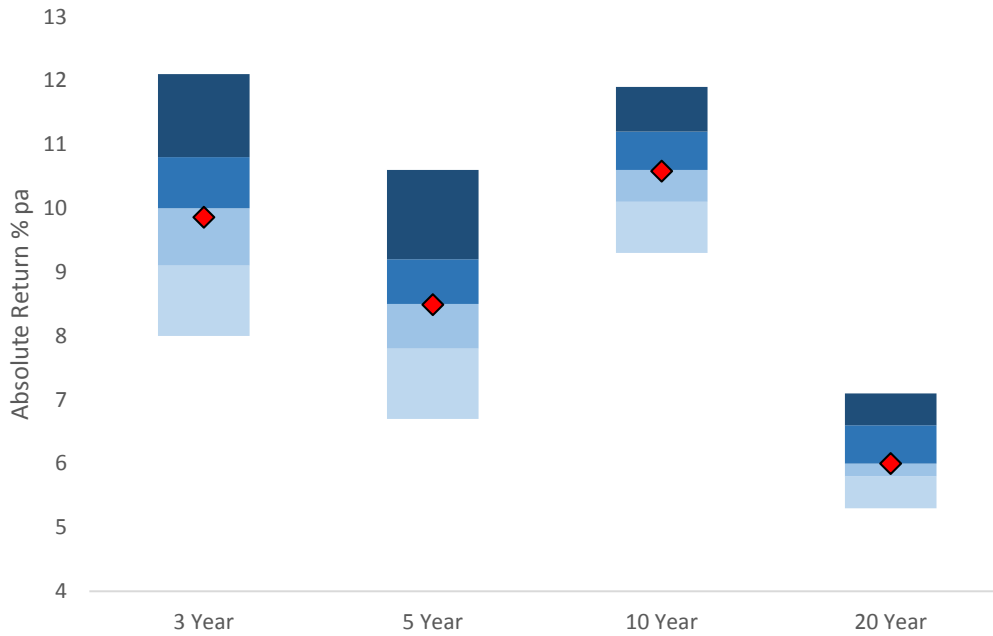
- The London Funds on average have a higher allocation to diversified growth than most of their peers and a lower exposure to most other assets.
- During the year there was little change in overall asset allocation.
- This allocation had a negative impact on performance last year due to the poor performance from Diversified Growth assets.



The chart shows the average London Fund's relative % weightings at asset class level at 31st March 2018 and 2019.

Longer Term Returns

- The London Funds have performed slightly below average over all periods.
- The range of results is wider across the recent past because of the large difference in returns between equities and absolute return/diversified growth strategies.
- Funds with a high equity allocation will have performed substantially better than those funds who have invested a significant proportion of assets in these less volatile strategies.
- Over the last ten years the best performing London fund produced a return 5.3%p.a. above that from the poorest performing - this represents a cumulative shortfall of 67%.

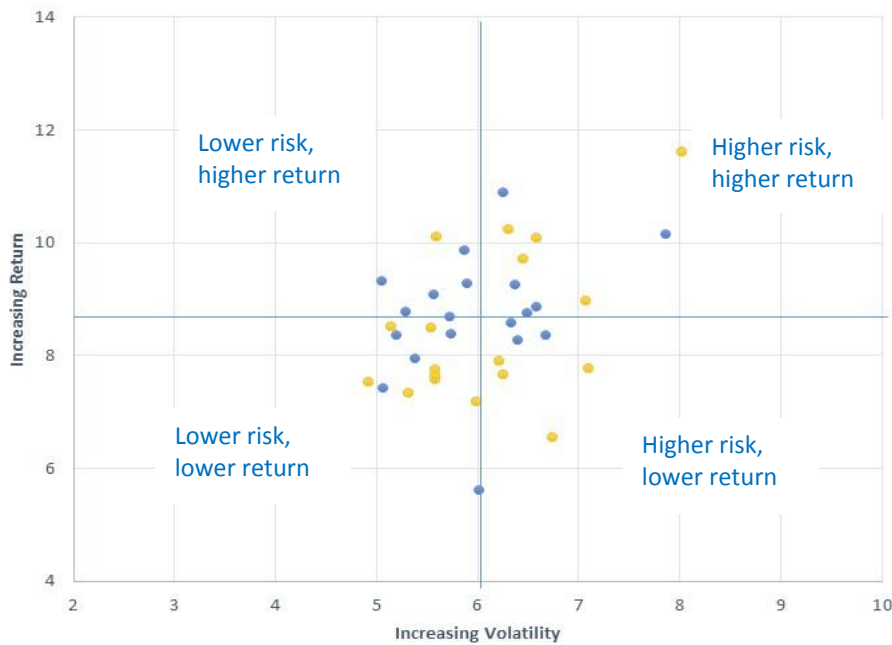


Universe Average	10.5	8.8	10.7	6.4
London Funds Average	9.9	8.5	10.6	6.0
Range:				
Best	13.5	11.9	13.7	7.9
Worst	7.9	6.7	8.4	4.7
Difference	5.6	5.2	5.3	3.2

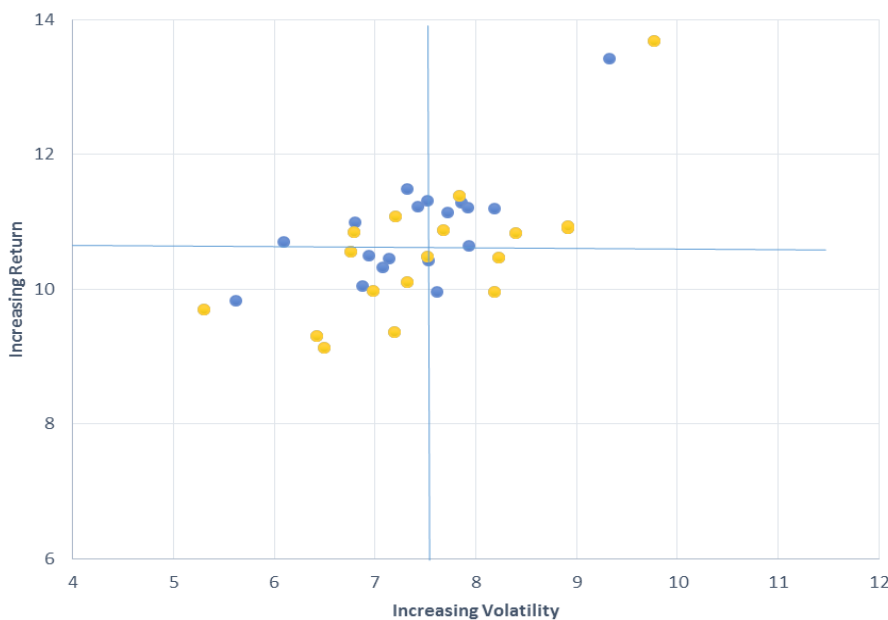
Risk and Return

- Over the last ten years the London Funds (shown as orange dots) were evenly distributed within the risk / return space.
- The Funds with lower than average volatility achieved lower than average returns and those that accepted more volatility outperformed.
- Over the last five years the volatility hasn't been so neatly rewarded. We have seen the Funds becoming generally more volatile relative to others but for some funds this has not resulted in additional return.

Last Five Years (% p.a.)



Last Ten Years (% p.a.)



We do not have monthly data for some funds for the full periods so cannot calculate their volatility results.

The charts show all funds (blue dots) and London funds (orange dots) in the LGPS Universe in risk/return space. The further up the vertical axis a fund is the better the return achieved. The further along the horizontal axis the more risk has been taken.

The blue lines are the median results. These divide the funds into quadrants. Most funds would prefer to be in the top left quadrant.

Fund Returns and Rankings

- The best performing funds (highlighted in orange) have been Kensington & Chelsea and Bromley.
- Whilst Brent has been the worst performing over the longer term, recent performance has improved.
- Barnet and Havering are the lowest performing funds over more recent periods - both have been adversely impacted by their high commitment to Diversified Growth.

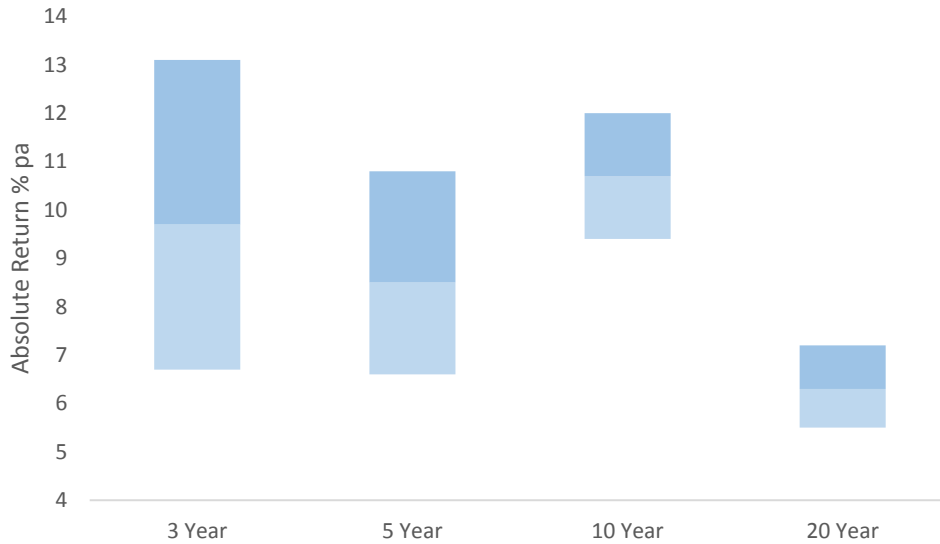
	1 Year	Rank	3 Yrs (% p.a.)	Rank	5 Yrs (% p.a.)	Rank	10 Yrs (% p.a.)	Rank	20 Yrs (% p.a.)	Rank
Barking and Dagenham	5.2	76	9.4	69	8.5	54	9.4	93	5.1	96
Barnet Pension Fund	5.1	82	7.9	97	6.7	95	8.4	98	5.5	91
Bexley Pension Fund	7.4	21	10.4	39	9.4	18	11.5	11	7.1	6
Brent Pension Fund	7.2	26	8.5	86	7.6	80	9.1	97	4.7	98
Bromley Pension Fund	8.0	11	13.5	1	11.6	2	13.7	1	7.9	1
Camden Pension Fund	4.9	92	9.9	58	7.2	92	10.2	68	6.0	55
City of London Corporation Pension Fund	7.6	13	9.8	60	7.9	69	10.4	64		
Ealing Pension Fund	4.8	94	9.7	63	7.7	77	10.8	41	6.6	23
Enfield Pension Fund	7.3	24	8.8	82	8.5	49	9.7	86	6.2	43
Greenwich Pension Fund	4.3	97	8.2	92	7.2	94	10.0	80	5.3	94
Hackney Pension Fund	5.7	68	9.3	73	7.5	85	9.6	89	5.7	85
Hammersmith and Fulham	5.0	87	8.2	90	7.8	76	10.6	52	6.2	40
Haringey Pension Fund	5.7	66	11.5	10	10.1	12	11.4	16	5.7	77
Harrow Pension Fund	6.0	57	11.0	18	9.1	28	11.6	9	6.4	34
Havering Pension Fund	3.4	100	8.3	87	7.4	89	10.5	57	5.4	93
Hillingdon Pension Fund	5.2	78	8.6	84	7.5	84	10.0	79		
Hounslow Pension Fund	8.6	8	10.5	34	7.8	76	10.5	59	6.3	36
Islington Pension Fund	7.0	32	9.0	78	7.6	82	10.1	72	5.5	89
Kensington and Chelsea	10.9	2	13.2	2	11.9	1				
Kingston upon Thames	6.2	50	9.9	57	9.0	30	10.9	36	6.0	51
Lambeth Pension Fund	4.5	95	8.1	94						
Lewisham Pension Fund	7.2	28	10.8	26	9.7	16	10.9	38	5.7	76
Merton Pension Fund	7.8	13	10.4	37	8.3	63	10.9	37	6.4	32
Newham Pension Fund	9.0	3	10.0	53	10.1	10	10.9	39	5.9	57
Redbridge Pension Fund	5.7	63	8.9	79	7.9	67	9.3	95	5.7	81
Southwark Pension Fund	9.0	5	10.7	31	10.3	7	11.1	30	6.5	30
Sutton Pension Fund	6.4	48	10.0	50	8.7	41				
Tower Hamlets Pension Fund	6.5	45	10.9	21	8.5	51	10.1	73	5.9	62
Waltham Forest Pension Fund	6.9	36	8.0	95	6.5	97	10.9	34	5.9	59
Wandsworth & Richmond Fund	6.7	42	11.0	16	9.2	25	11.9	5	6.7	19
Westminster Pension Fund	6.1	53	10.4	36	8.5	57				
Universe Weighted Average	6.6		10.5		8.8		10.7		6.4	
London Weighted Average	6.5		9.9		8.5		10.6		6.0	

Best performing
 Worst performing

Benchmark Performance

- The chart shows the benchmark returns for the London funds over the longer term with the centre line being the median.
- It is clear to see how wide these expected returns have been, particularly over the shorter term.
- Given the Benchmark (which reflects the strategy of the Fund) will be the key driver of return, some funds were expecting returns well below those targetted by their peers. Given the similar liability profiles of the funds this is something worth reviewing.

Range of Benchmark Results (% p.a.)



Performance Relative to Benchmark

Range of Relative Results (% p.a.)

	3 Year	5 Year	10 Year	20 Year
Worst	-1.6	-1.4	-1.5	-1.0
Median	-0.2	-0.4	-0.2	-0.2
Best	1.6	0.8	1.7	0.9

- Over all periods most funds have failed to achieve benchmark performance.
- The distribution of relative returns is even across all periods.
- The funds that have performed best relative to their benchmark also tend to be at the top end of the total performance rankings- they have managed to implement a successful asset allocation and pick outperforming managers.
- Conversely the funds that have performed poorly relative to their benchmark tend to be at the lower end of the total performance rankings - they have suffered from a lower returning strategy compounded by underperforming managers.

PIRC measures the performance of all London funds with the exception of Croydon who have yet to supply data to the service.