

Staffordshire Pension Fund

Investment Benchmarking Results

For the 7-year period ending the 31st March 2021

Version 1

09-12-2021



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This benchmarking report provides an independent assessment of value-for-money.

We compare your costs with other pension funds and other asset owners, inside and outside LGPS. To provide context, we also compare your investment performance, asset mix, risk, funding etc. What emerges is a narrative about your fund, how it compares with others and why your investment outcomes compare as they do.

Cost

- How do our costs compare and why?
- Where are we paying more / less than others?
- What is the trend in our costs?
- What impact has pooling had on our costs?

Performance

- Costs need to be seen in the context of performance.
- How do our returns compare with others and why?
- Are our active management decisions being rewarded?
- How does our 'net value add' compare with others?

Risk

- How does the risk in our portfolio compare with others?
- How does risk relate to relative funding levels?

Value-for-Money

- If we are paying more then are we getting more?

The report is accompanied by an on-line dashboard. The dashboard allows your management team to drill-down on key metrics and access detailed comparisons of cost, performance and value at an asset class and mandate level.

This report reflects a 7-year time period. This is to align with DLUHC's requirement to 'baseline' and report cost savings. The report is based on standard data submitted to CEM by your fund, by other LGPS funds and a wider universe of funds from around the world. Care is taken to validate the data contained in the report. This includes automated validations on outlying or unusual data as it is submitted, and an additional manual data 'clean' where our analysts interact with fund personnel to ensure the data is fit for purpose. The information in this report is confidential and should not be disclosed to third parties without the express written consent of CEM. CEM will not disclose any of the information in the report without your express written consent. Note that there may be small discrepancies in the report - these are due to rounding.

We compare your costs with 16 global peer funds ranging from £3.7 bn to £9.3 bn.

The peer group is selected to answer a key question:

Are your costs reasonable for a fund of your size and with your assets?

Peers are therefore selected:

- Based on size - because size impacts costs.
- To include both LGPS and non-LGPS funds globally.
- Because they hold similar assets to you¹.
- For stability and validity:
 - Regular participants mean consistent year-on-year results.
 - To deliver a stable statistical sample.

The median size in the peer group is £6.2 bn (versus your £6.1 bn).

We specifically exclude other LGPS funds from your pool because costs will increasingly be homogenous within the pool.

¹ Differences in asset mix are addressed in the methodology – explained in the following pages.

² The names of peers are confidential and should not be disclosed to third parties.

Peer Group²

LGPS Funds

Essex Pension Fund
Lothian Pension Fund
Merseyside Pension Fund
Rhondda Cynon TAF Pension Fund
South Yorkshire Pensions Fund
Staffordshire Pension Fund
Teesside Pension Fund

Non-LGPS Funds

Colleges of Applied Arts and Technology
Dominion Energy, Inc.
Houston Police Officers Pension System
Manitoba Civil Service Superannuation Fund
Missouri State Employees' Ret. Sys.
San Diego City ERS
Stichting BPF voor de Koopvaardij
BPF voor de Media PNO
SPF TNO

We are benchmarking investment costs of £31.3m or 51.1 bps in 2021.

Asset class	External Management Costs £000s			Total	
	Passive fees	Active base fees	Active perf. fees	£000s	bps
Equities - UK	36	434		470	6.7
Equities - Global	451	3,227		3,678	10.6
Bonds - Inflation Indexed	47			47	1.1
Bonds - Other	438			438	10.3
Domestic Property		1,303	235	1,538	32.8
Infrastructure - FoFs					
Top Layer Fees		44	20	64	259.5
Underlying Fees		34	24	58	233.5
Hedge Funds - FoFs					
Top Layer Fees		319	49	368	158.4
Underlying Fees		290	223	513	220.9
Diversified Private Equity - LP		2		2	6.8
Diversified Private Equity - FoFs					
Top Layer Fees		3,239	3,647	6,886	264.1
Underlying Fees		4,288	5,005	9,294	356.5
Private Credit - LP		4,088	1,632	5,720	196.2
	972	17,269	10,835	29,075	47.5
Oversight, custody and other costs ¹				2,245	3.7
Total benchmarked costs ²				31,320	51.1

1. Benchmarked investment costs exclude pension administration costs and non-investment related governance and oversight costs.

2. Your 2020/21 financial statements report investment costs of £18.8 million including transaction costs of £0.7 million. The costs benchmarked here are different. This is likely because of differences in standard definitions, and/or estimations of costs in financial statements.

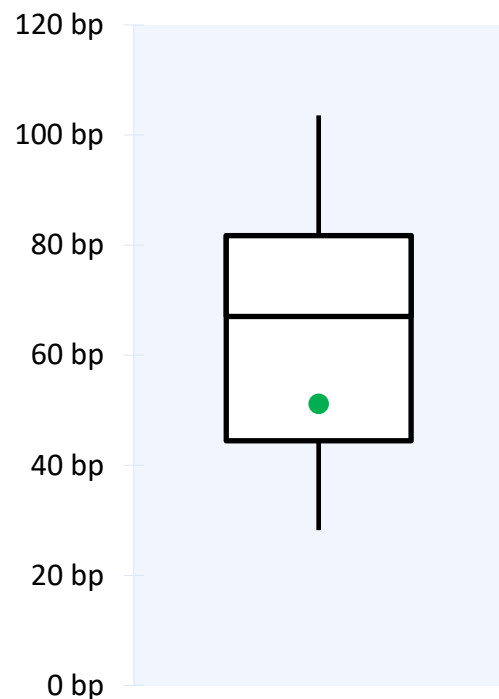
Blue shaded numbers indicate where data is missing and default costs have been applied to 1 or more of the underlying mandates. Defaults are either peer or universe medians, intended to show indicative costs.

Your cost of 51.1 bps was above your benchmark cost of 45.3 bps.

Comparison of costs *before adjusting for asset mix* :

Before adjusting for differences in asset mix, your costs of 51.1 bps were 15.9 bps below the peer median of 67.0 bps.

Your cost versus peers
(before adjusting for asset mix differences)



Comparison of costs *after adjusting for asset mix* :

To calculate a benchmark cost we apply peer median costs at an asset class level to your asset mix (i.e., we adjust for differences in asset mix).

Your cost versus benchmark
(after adjusting for asset mix differences)

	£000s	bps
Your investment cost	31,320	51.1
Your benchmark cost	27,739	45.3
Difference	3,582	5.8

The difference is explained by two factors:

	£000s	bps
Implementation style	4,781	7.8
Paying less for similar assets	(1,200)	(2.0)
Total	3,582	5.8

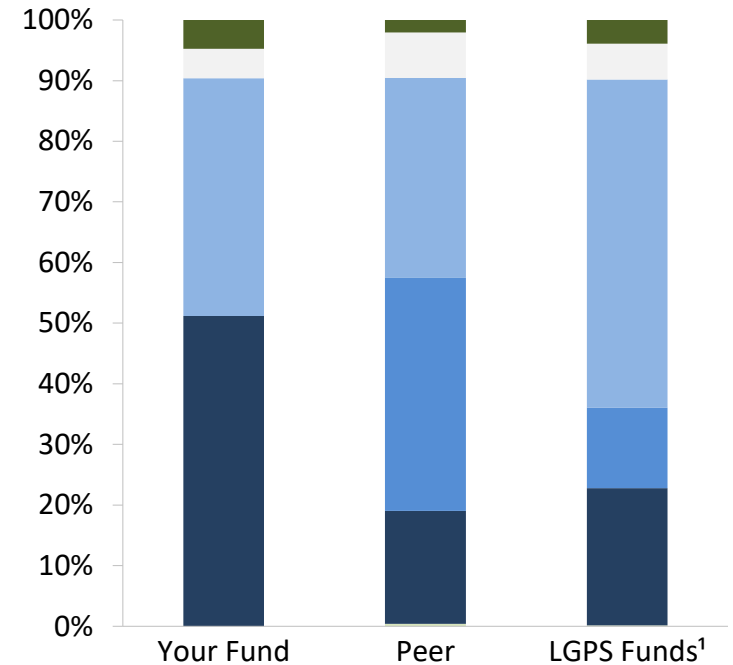
These factors are quantified in the pages overleaf.

Your implementation decisions cost you 7.8 bps relative to peers.

Implementation choice is about structural differences in how funds implement strategy, e.g. more or less active or passive.

Your implementation choices versus peers	Impact bps	Impact £000s
More passive (less active)	(4.3) bp	(2,633)
More external (less internal)	4.8 bp	2,956
Less evergreen (more LP)	0.5 bp	300
More fund of funds	7.5 bp	4,608
Less co-investments in LP	0.0 bp	4
Less overlays	(0.7) bp	(454)
Total impact	7.8 bp	4,781

Implementation style



■ Fund of Funds	4.7%	2.0%	3.9%
■ LP	4.9%	7.5%	5.9%
■ External Active	39.2%	32.9%	54.1%
■ Internal Active	0.0%	38.4%	13.2%
■ External Passive	51.2%	18.6%	22.6%
■ Internal Passive	0.0%	0.4%	0.1%

1. The LGPS universe currently comprises of 31 funds. Refer to page 11 for details.

Paying less for similar assets saved you 2 bps relative to peers.

Mandate	Benchmark asset class and style	You ³ £000s	Peer bmk. cost ^{2 3} £000s	Total fund impact £000s	Total fund impact bps ¹
Pooled					
LGPS Central - Global Equity	Equities - Global - External Active	1,414.5	2,339.9	(925)	(1.5)
LGPS Central - Corporate Bond	Bonds - Other - External Passive	437.9	247.8	190	0.3
LGPS Central - Private Equity	Private Equity - Diversified Private Equity - LP	2.3	121.9	(120)	(0.2)
LGPS Central - Factor Based Equity	Equities - Global - External Passive	39.1	43.5	(4)	(0.0)
				(860)	(1.4)
Non-pooled					
Partners Group ⁴	Private Equity - Diversified Private Equity - FoFs	4,060.8	1,884.4	2,176	3.6
JP Morgan - Global Equity	Equities - Global - External Active	1,129.6	2,024.0	(894)	(1.5)
Harbourvest ⁴	Private Equity - Diversified Private Equity - FoFs	9,265.2	10,150.6	(885)	(1.4)
Highbridge ⁴	Private Debt - Private Credit - LP	2,683.0	2,051.6	631	1.0
Colliers ⁴	Real Assets - Domestic Property - Evergreen	1,371.9	1,841.7	(470)	(0.8)
Longview Partners - Global Equity	Equities - Global - External Active	683.2	1,078.2	(395)	(0.6)
Aberdeen Standard - UK Equity	Equities - UK - External Active	434.3	827.7	(393)	(0.6)
All other				(178)	(0.3)
				(408)	(0.7)
Oversight, custody and other costs		2,245.0	2,177.0	68	0.1
			Total	(1,200)	(2.0)

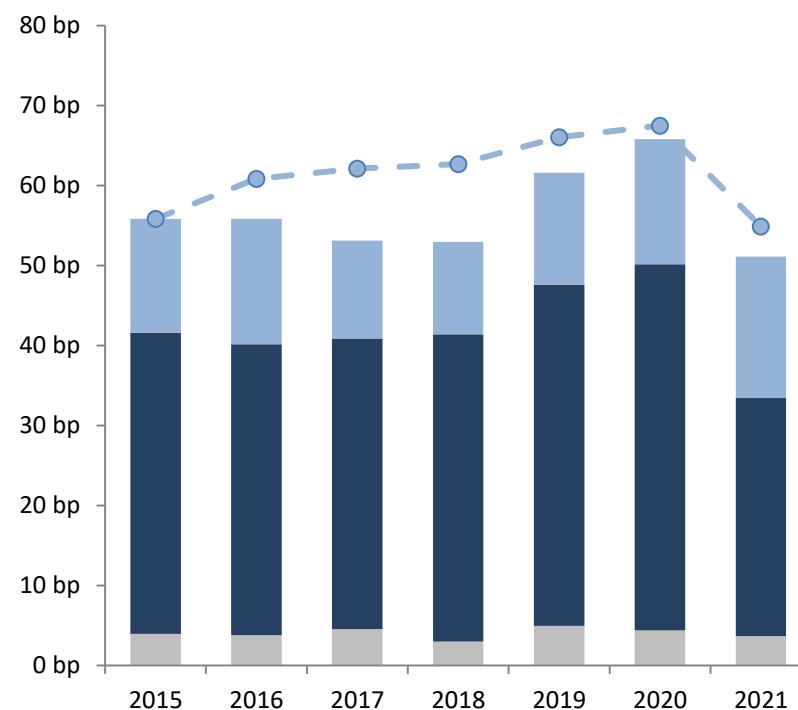
1. Bps impact at the total fund level, i.e., what the mandate contributes to the overall total cost vs. benchmark.
2. The cost that the Peer group is expected to pay for this asset class and style, based on their median cost (in bps).
3. Includes performance fees where paid.
4. The fees shown as being paid by you include defaults - peer group medians for at least part of the fee structure. Those defaults are neutral in the comparison, i.e., there is a matching cost in the peer benchmark.

Your benchmarked costs fell from 55.8 bps in 2015 to 51.1 bps in 2021.

Your costs change over time because:

1. Your asset mix changes.
2. Your implementation approach changes, e.g., moving from active to passive or external to internal (or vice versa).
3. What you pay for mandates changes over time because:
 - Performance fees (if applicable) are variable.
 - Your line-up of managers and mandates changes.
 - Some mandates have cost bands that vary with assets.

Investment cost changes (bps)



Performance	14.2	15.7	12.3	11.6	14.0	15.7	17.7
Base and internal	37.6	36.3	36.3	38.4	42.7	45.8	29.8
Oversight and custody	4.0	3.8	4.5	3.0	5.0	4.4	3.7
Total	55.8	55.8	53.1	53.0	61.6	65.8	51.1
Asset mix impact ¹	55.8	60.8	62.1	62.7	66.0	67.5	54.9

¹ The asset mix impact is the predicted change in your cost based on asset mix changes alone, i.e., if what you paid for each mandate and how you implemented your strategy were unchanged from the baseline year. The asset mix impact is sensitive to your costs in the baseline year.

Your costs fell by 4.7 bps because you are paying less for similar assets.

			7-Year change Bps
Starting costs (year ending 2015)			55.8
1. Lower cost asset mix			(1.0)
2. Lower cost implementation style			
• Less active management, more lower cost passive			(2.2)
• More external management, less lower cost internal			0.1
• Use of fund of funds			0.5
			(1.6)
3. Paying less, for similar services			
• Lower external investment management fees			
Equities - UK - Active - Total fees	<u>2015</u>	<u>2021</u>	(0.7)
Equities - Global - Passive - Total fees	26.7 bp	13.1 bp	(1.7)
Equities - Global - Active - Total fees	7.9 bp	2.4 bp	(4.7)
Diversified Private Equity - FoF - Top layer fees	39.1 bp	20.5 bp	0.5
All other external management cost differences	112.9 bp	124.2 bp	(0.2)
• Private asset performance fees			
Lower Hedge Funds - FoF - Top layer perf. fees (on NAV) costs	<u>2015</u>	<u>2021</u>	(0.1)
Higher Diversified Private Equity - FoF - Top layer perf. fees (on NAV) costs	56.4 bp	21.0 bp	2.8
All other private asset performance fee differences	74.0 bp	139.9 bp	2.5
• Lower oversight, custodial & other costs			(0.3)
			(2.1)
Ending costs (year ending 2021)			51.1

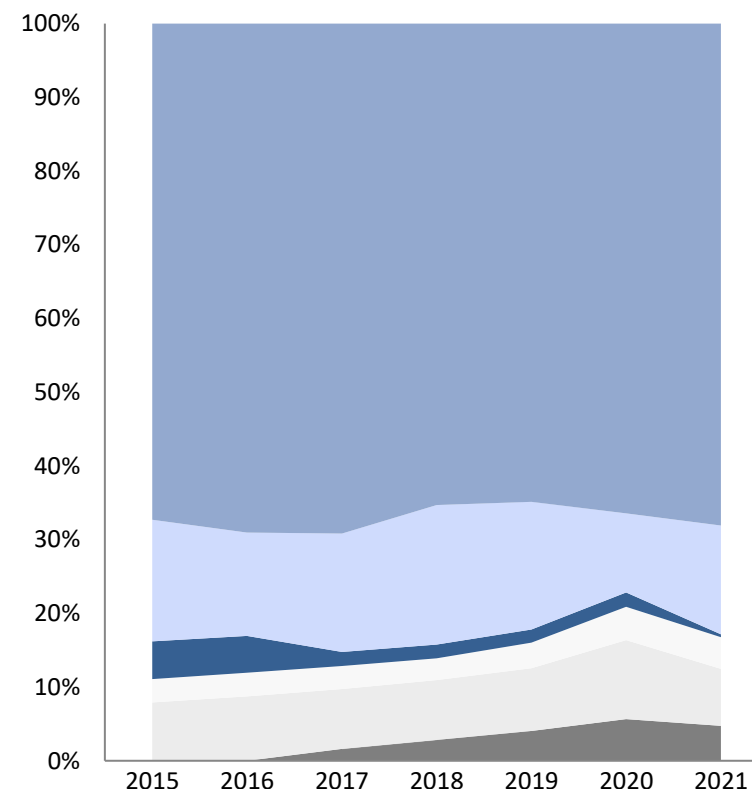
Changes in your asset mix reduced your cost by 1.0 bps since 2015.

All other things being equal, changes in your asset mix influence your total cost. If you invest more in higher cost assets, particularly private assets, your costs increase (and vice versa).

- Your allocation to Hedge Funds decreased from 5% in 2015 to 0.4% in 2021.
- During the same time period, your allocation to Private Debt increased from 0% to 5%.

The asset mix impact is the predicted change of your costs based on asset mix alone. It assumes that what you paid for each mandate and how you implemented your strategy was unchanged from the baseline year.

7-year trend in your asset mix



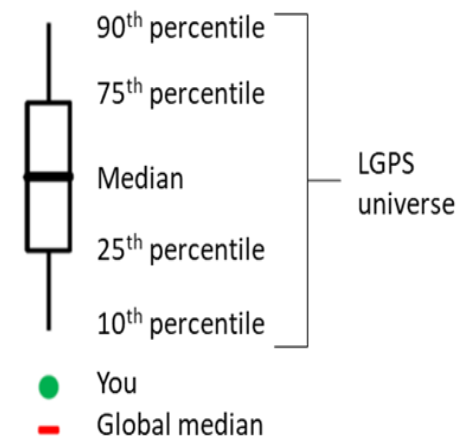
	2015	2016	2017	2018	2019	2020	2021
Equities	67%	69%	69%	65%	65%	66%	68%
Bonds	16%	14%	16%	19%	17%	11%	15%
Hedge Funds & Multi-Asset	5%	5%	2%	2%	2%	2%	0%
Private Equity	3%	3%	3%	3%	4%	5%	4%
Real Assets	8%	9%	8%	8%	9%	11%	8%
Private Debt	0%	0%	2%	3%	4%	6%	5%

We compare your returns to other LGPS funds and a wider global universe.

The main investment performance comparisons are with CEM's LGPS universe, which currently comprises 31 funds with total assets of £178 billion (average £6 billion, median £3 billion).

Pool / Group	Participating Funds
Access	Cambridgeshire, Essex, Isle of Wight, Kent, Northamptonshire, Suffolk.
BCPP	Cumbria, Durham, Lincolnshire, NYPF, SYPF, Teesside, Warwickshire.
Central	Staffordshire, Worcestershire.
London	Tower Hamlets.
LPP	Lancashire, LPFA.
Northern	GMPP, Merseyside, West Yorkshire.
Scotland	Falkirk, Fife, Lothian, Scottish Borders, Strathclyde.
Wales	Swansea, Flintshire, Torfaen, Gwynedd, Rhondda.

'Bar and whisker' graphs are used to show how you compare with both LGPS funds and global comparators:



We also compare your returns with a wider global universe comprising 306 funds with total assets of £8.1 trillion (average £26bn, median £6bn). The global universe includes half of the world's top 300 funds.

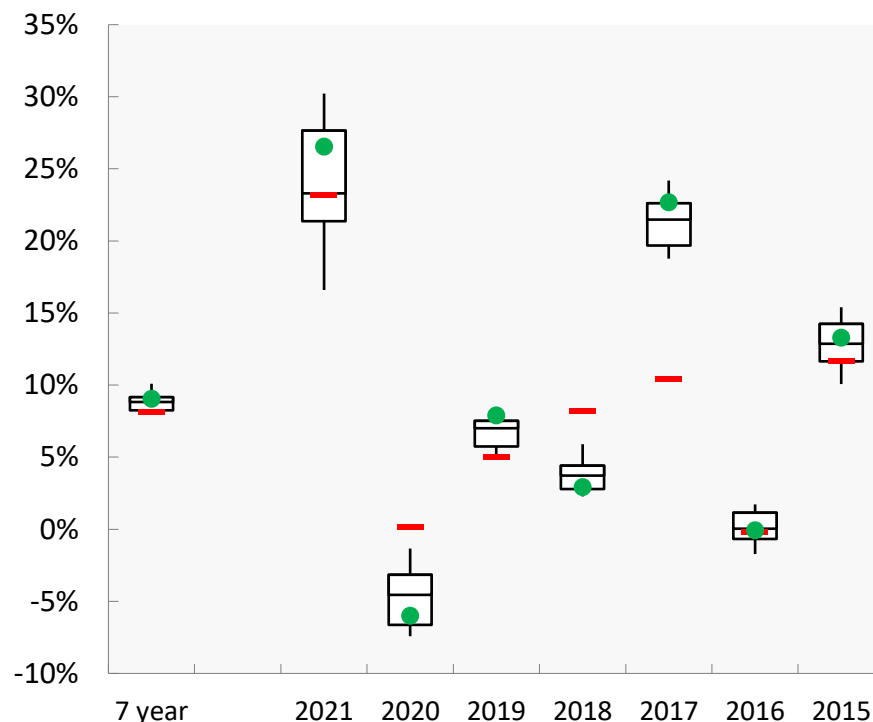
This is an interim report. Many peers have still to provide data for 2020/21, both within the LGPS and globally. Headline performance from some funds is derived from public disclosures for the purpose of the interim report and some data is 'rolled forward' from prior years. The report will be updated and reissued when more data is available.

Your 7-year net total return of 9.1% was above the LGPS median of 8.8%.

In the pages that follow, we help you to understand why your returns compare as they do by separating total return into its more meaningful components:

- *Benchmark return* : The return from strategic asset allocation decisions. These decisions are typically made by the local Pensions Committee.
- *Value added* : A function of active management decisions, including tactical asset allocation, manager selection, stock selection, etc. These 'implementation' decisions tend to be made by management.

LGPS net total returns - quartile rankings



	7 year	2021	2020	2019	2018	2017	2016	2015
LGPS								
Q3	9.2	27.7	-3.2	7.5	4.4	22.6	1.1	14.2
Median	8.8	23.3	-4.6	7.0	3.7	21.5	0.0	12.9
Q1	8.2	21.4	-6.6	5.7	2.8	19.7	-0.7	11.6
Your fund	9.1	26.5	-6.0	7.9	2.9	22.7	-0.1	13.3
LGPS %ile	70%	67%	34%	78%	30%	77%	46%	63%
Global Med.	8.2	23.2	0.2	5.0	8.2	10.4	-0.2	11.6

Global return comparisons have been particularly influenced by the relative strength of the \$US over the period covered by this report and by the depreciation of the £ in 2016/17, i.e. there is currency 'noise' in the global comparison.

Your 7-year benchmark return of 9.1% was above the LGPS median of 8.5%.

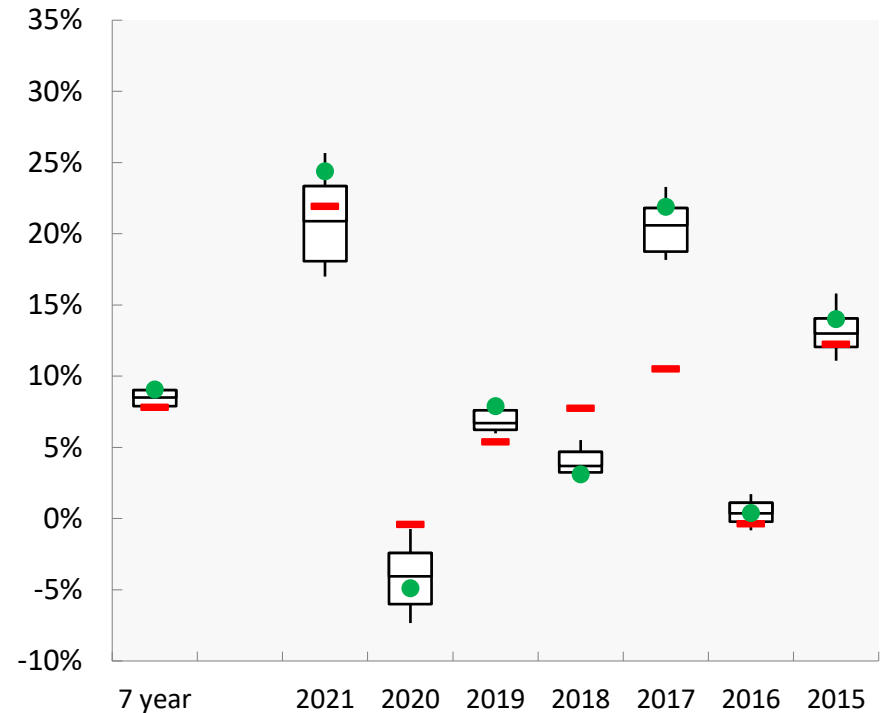
The benchmark return is the return you could have earned by implementing your strategy passively, i.e., by indexing your portfolio in line with your strategic asset allocation.

You have selected a strategic asset allocation based on your funding position, long-term market expectations, liabilities, employer covenant and appetite for risk.

These factors are different in each funds and it is unsurprising that benchmark returns (and total returns) often vary widely.

The following page looks at how your strategic asset allocation and choice of benchmarks compare with other LGPS funds.

LGPS benchmark returns - quartile rankings



	7 year	2021	2020	2019	2018	2017	2016	2015
LGPS								
Q3	9.0	23.3	-2.4	7.6	4.7	21.8	1.1	14.0
Median	8.5	20.9	-4.1	6.7	3.7	20.6	0.4	13.0
Q1	7.9	18.1	-6.0	6.2	3.3	18.8	-0.2	12.1
Your fund	9.1	24.4	-4.9	7.9	3.1	21.9	0.4	14.0
LGPS %ile	78%	87%	40%	81%	21%	77%	51%	74%
Global Med.	7.8	21.9	-0.4	5.4	7.8	10.5	-0.3	12.3

Benchmark returns are driven by strategic asset mix and choice of benchmarks.

- Your strategic allocation to Alternatives increased from 15% in 2015 to 22% to 2021.
- At the same time your allocation to both Equities and Fixed Income decreased.
- Your allocation to Equities of 65% is above the average allocation of the LGPS universe of 53%.

	Strategic Asset Allocation			7-year benchmark return	
	You 2015	You 2021	LGPS Avg. 2021	You	LGPS Avg.
Equities - UK	15%	13%	10%	4.8%	4.9%
Equities - U.S.	0%	0%	1%	n/a ¹	16.3%
Equities - Emerging	2%	0%	2%	n/a ¹	9.7%
Equities - Global	51%	52%	35%	11.5%	11.3%
Equities - Other	0%	0%	4%	n/a ¹	n/a ¹
Total Equities	68%	65%	53%	10.0%	9.7%
Bonds - Inflation Indexed	7%	7%	2%	7.4%	7.3%
Bonds - Global	10%	0%	5%	n/a ¹	3.8%
Other Fixed Income	1%	8%	11%	n/a ¹	n/a ¹
Total Fixed Income	17%	14%	18%	4.4%	5.0%
Global TAA	0%	0%	2.7%	n/a ¹	1.4%
Hedge Funds	1%	2%	1.3%	1.3%	1.5%
Simple Multi-Asset Strategies	0%	0%	0.6%	n/a ¹	5.9%
Infrastructure	0%	1%	5.9%	n/a ¹	5.1%
Real Estate incl. REITs	10%	10%	9.7%	7.5%	7.4%
Other Real Assets	0%	0%	0.6%	n/a ¹	n/a ¹
Private Equity	4%	4%	4.7%	0.0%	7.3% ²
Private Debt	0%	5%	3.6%	n/a ¹	3.2%
Total Alternatives	15%	22%	29%		

1. A value of 'n/a' is shown if asset class returns are not available for the full 7 years or if they are broad and incomparable.

2. To enable fairer comparisons, the private equity benchmarks of all participants, except your fund, were adjusted to reflect lagged, investable, public-market indices. If CEM used this same adjustment for your fund, your fund's 7-year private equity net value added would have been 11.0%. The 7-year average, self-reported benchmark from private equity was 6.0%

Your strategic asset allocation is largely a function of your appetite for risk.

It is interesting and helpful to compare the overall expected level of volatility in your portfolio. Each fund has its own risk model but we calculate risk on a standard basis in order to compare funds. It is your position relative to others that is important.

- Asset risk - A higher asset risk is indicative of a higher weighting to more volatile assets and/or more concentration in the portfolio (and vice-versa). Your asset risk of 11.1% was above the LGPS median of 10.9%.
- Asset-liability mismatch risk - A lower asset-liability mismatch risk means you are closer to a 'fully-matched' position. A higher asset-liability mismatch risk is indicative of a willingness to take more risk relative to liabilities. Your asset-liability risk of 11.4% was above the LGPS median of 11.2%.

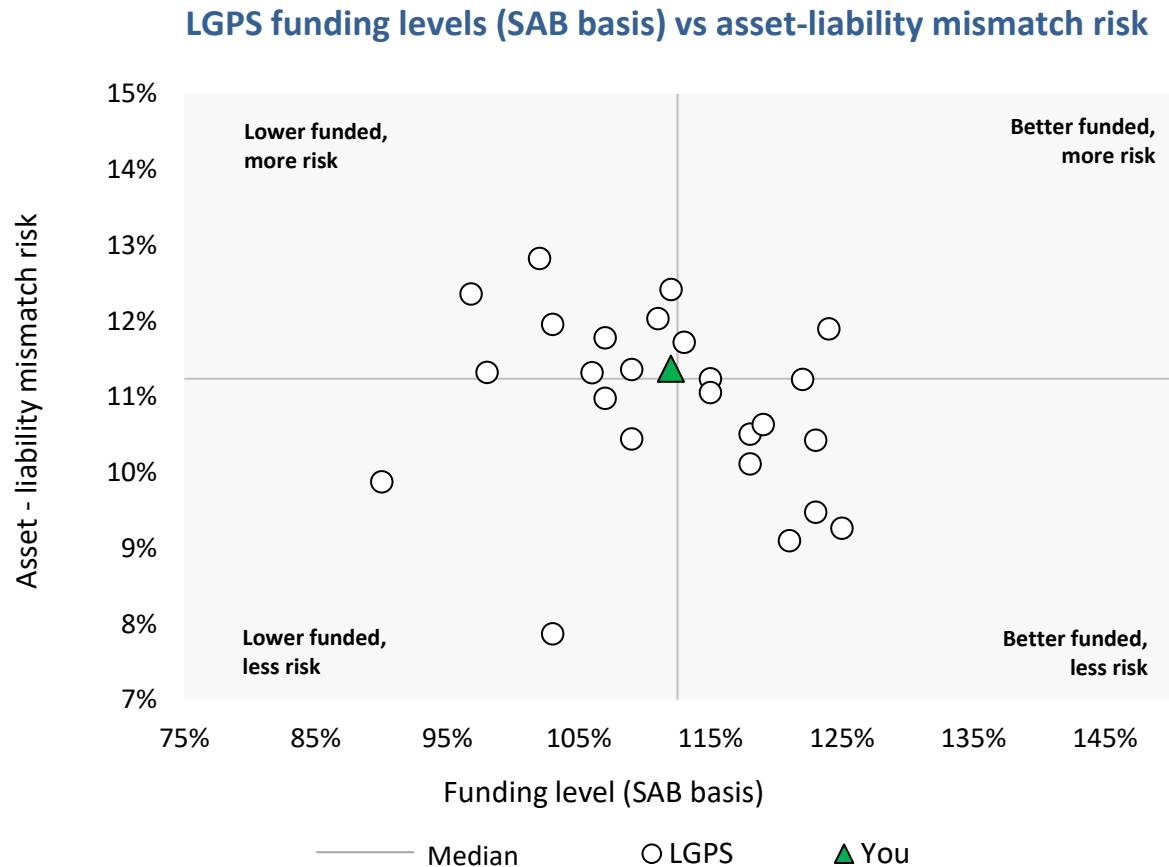
Trend	Asset risk	Asset-liability mismatch risk
2014/15	11.5%	11.6%
2020/21	11.1%	11.4%

LGPS risk levels at 31st March 2021



1. Asset risk is the standard deviation of your benchmark return. It is based on the historical variance of, and covariance between, the asset classes in your strategic asset allocation.
2. Asset-liability mismatch risk is the standard deviation of funded status caused by market factors. It is a function of the standard deviations of your asset risk, your marked-to-market liabilities and the correlation between the two.

Your funding level of 112% on the standard SAB basis¹ in 2019 was equal to the LGPS median of 112%. You had more asset liability mismatch risk than other LGPS funds.



1. The funding level is based on standardised actuarial assumptions developed for the Scheme Advisory Board (SAB). Most of the key assumptions are consistent across funds but some assumptions, and in particular mortality assumptions, are fund specific. The standard basis serves a useful purpose in providing context for comparisons of asset risk and asset-liability mismatch risk.

2. Your funding level, on the regular basis prescribed by your own actuary in 2019 was 99%, i.e., the SAB basis is less prudent than your regular basis. The median funding level for participating LGPS funds on their regular basis was 96%.

Net value added is out-performance from active implementation decisions. Your 7-year net value added was 0.0%.

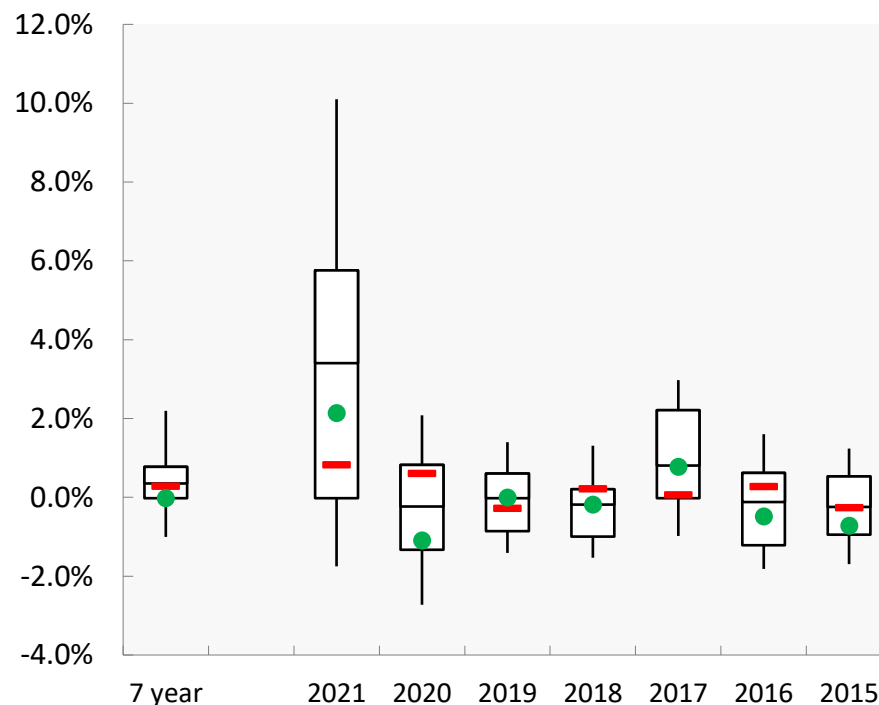
Net value added equals total net return minus benchmark return. It is a function of active management decisions made in the implementation of your strategy including tactical asset allocation, manager selection, stock selection, choice of benchmarks, hedging, overlays, etc.

Your average 7-year net value added of 0.0% compares to a median of 0.4% for the LGPS universe and 0.3% globally.

Year	Assets (£M)	Net value add	Approx. net value add (£M)
2015	3,519	-0.7%	-25.4
2016	3,749	-0.5%	-18.0
2017	4,154	0.8%	32.0
2018	4,669	-0.2%	-8.6
2019	4,946	-0.01%	-0.4
2020	4,739	-1.1%	-51.8
2021	6,125	2.1%	130.8
Total		0.0%	

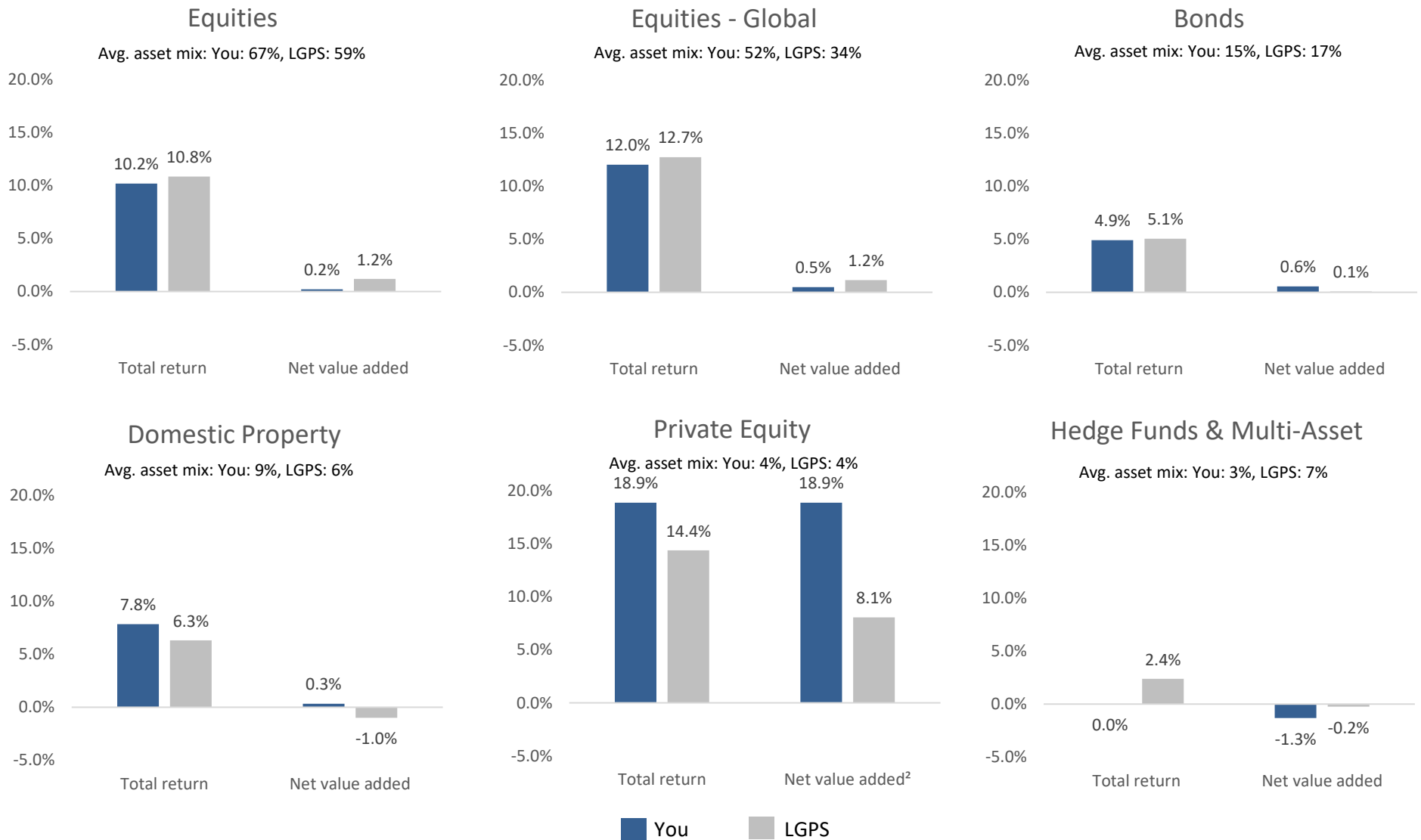
Poorly correlated benchmarks create 'noise' which makes it difficult to understand whether active management decisions are being rewarded. To enable fairer comparisons, the value added for each participant, except your fund, was adjusted to reflect private equity benchmarks based on lagged, investable, public-market indices. If CEM used this same adjustment for your fund, your 7-year total fund value added would have been 0.3% lower.

LGPS value added - quartile rankings



	7 year	2021	2020	2019	2018	2017	2016	2015
LGPS								
Q3	0.8	5.8	0.8	0.6	0.2	2.2	0.6	0.5
Median	0.4	3.4	-0.2	0.0	-0.2	0.8	-0.1	-0.2
Q1	0.0	0.0	-1.3	-0.9	-1.0	0.0	-1.2	-0.9
Your fund	0.0	2.1	-1.1	0.0	-0.2	0.8	-0.5	-0.7
LGPS %ile	26%	40%	31%	53%	51%	49%	41%	33%
Global Med.	0.3	0.8	0.6	-0.3	0.2	0.1	0.3	-0.3

7-year average net returns and net value added by major asset class



1. We do not have sufficiently detailed historic data to compare returns for 7 years.

2. To enable fairer comparisons, the private equity benchmarks of all participants, except your fund, were adjusted to reflect lagged, investable, public-market indices. If CEM used this same adjustment for your fund, your fund's 7-year private equity net value added would have been 11.0%.

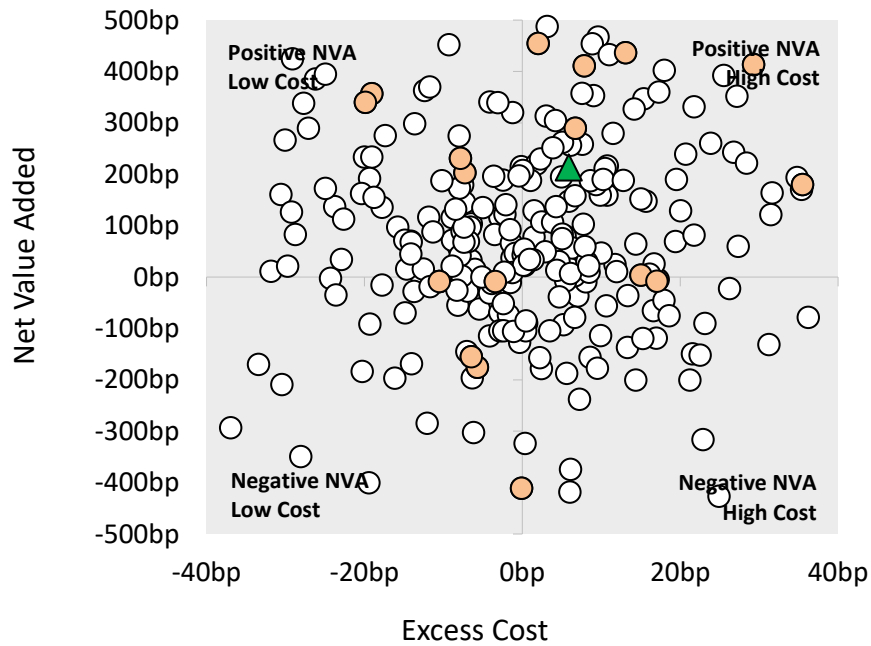
Value-for-Money (VfM)

Your 2021 performance placed in the positive value added, high cost quadrant of the VfM chart.

Your 7-year performance placed in the negative value added, high cost quadrant of the VfM chart.

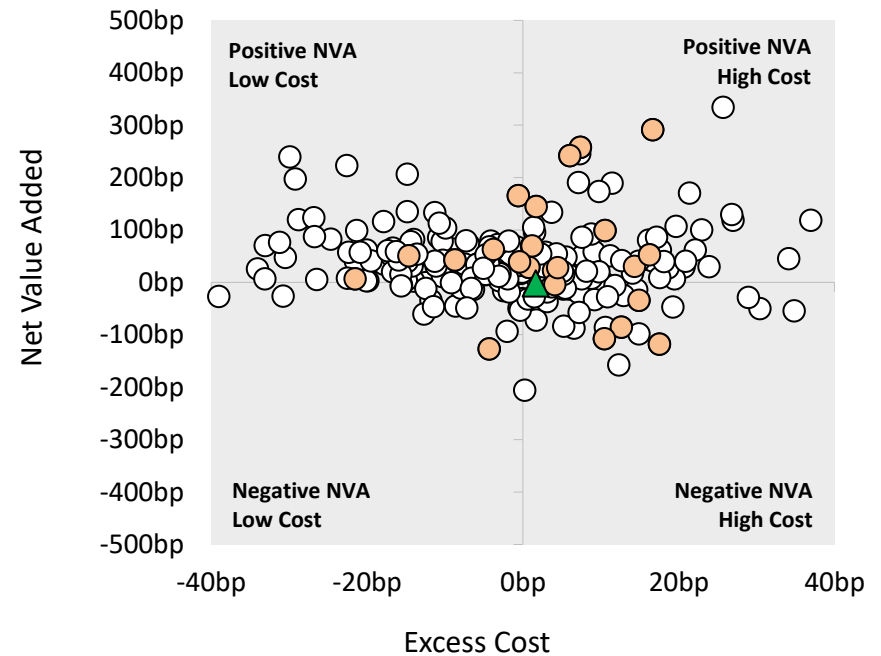
2020/21 net value added versus excess cost

(Your 2021: net value added 214 bps, excess cost 6 bps)



7-Year net value added versus excess cost

(Your 7-year: net value added -2 bps, excess cost 2 bps)



	2021	2020	2019	2018	2017	2016	2015	7-year
Net value added (bps)	213.6	(109.2)	(0.7)	(18.4)	77.0	(48.2)	(72.1)	(1.9)
Your Excess Cost (bps)	5.8	6.7	6.9	-3.2	-2.8	-3.3 ¹	3.7 ¹	2.0

1. Calculated using a simplified benchmark model.

Key takeaways

Cost

- Your investment cost of 51.1 bps was above your benchmark cost of 45.3 bps.
- In aggregate, you had a higher cost implementation style.
- In aggregate, you paid less than peers for similar assets.

Cost trend

- Your costs fell from 55.8 bps in 2014/15.
- Your costs fell by 4.7 bps because you are paying less for similar assets.

Returns

- Your 7-year net total return was 9.1%. This was above the LGPS median of 8.8%.
- Your 7-year benchmark return was 9.1%. This was above the LGPS median of 8.5%.

Funding and Risk

- Your funding level of 112% on the standard SAB basis in 2020 was same the LGPS median of 112%.
- Your strategic asset allocation suggests that you take more risk relative to your liabilities than LGPS peers.

Value added

- Your 7-year net value added was 0.0%. The LGPS median was 0.4% and the global median was 0.3%.

Cost effectiveness / value-for-money

- Your 7-year performance placed in the negative value added, high cost quadrant of the VfM chart.