



# London Borough of Brent Pension Fund

H2 2021 Investment Monitoring Report

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Executive Summary

Performance Summary

The assets combined to return 6% over the 6 months to 31 December 2021, outperforming the aggregate target return by 0.9%.

Global equities rose 9.5% in Sterling terms over the second half of 2021 despite the emergence of the Omicron variant as companies delivered strong earnings growth. UK equities also produced positive returns (up 6.6%) although they lagged global markets. Emerging market equities fell over the period, impacted by the emergence of the Omicron variant, and tightening monetary policy and increased regulatory pressures particularly in China.

A fall in yields over the quarter saw positive returns from the UK government bond market. Speculative grade credit markets also delivered positive returns.

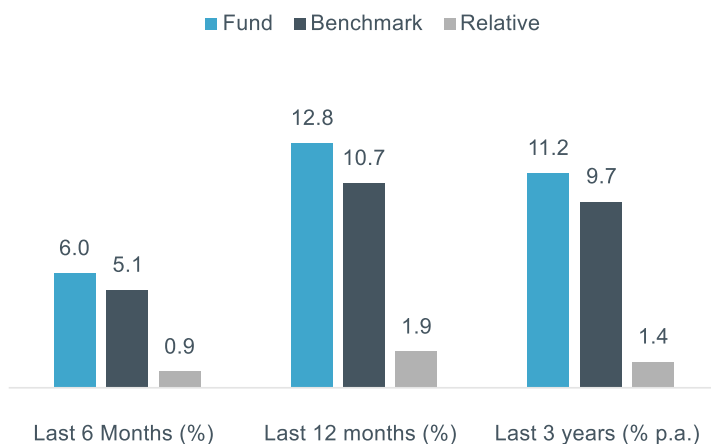
Key Actions

The investment in the BlackRock Low Carbon Fund is expected to be topped up to 3% during Q1 2022. The property allocation will also be topped up during Q1 2022, subject to receiving attractive pricing in the secondaries market.

Key points to note

- The Fund has posted positive returns over the past 6 months, ending the period with a valuation of £1,155.7m up from £1,076.2m at the end of Q2 2021.
- The Fund’s Growth holdings were again the main drivers of returns, with LGIM’s global equity mandate the primary contributor in monetary terms.
- Within the Fund’s Income holdings, the Baillie Gifford multi-asset fund produced strong performance over the period.
- The Fund made its first investments in the BlackRock Low Carbon equity fund and the LCIV private debt fund during the period. The Fund also invested £15m in the Fidelity UK property fund consistent with the decision taken at the last Committee meeting.
- The cash held by the Fund reduced over the period as this was used to fund these new investments.

Fund performance vs benchmark/target



High Level Asset Allocation

As part of the investment strategy review carried out in Q2 2020, the Fund’s DGF mandates were re-categorised as ‘Diversifiers’ and included within the ‘Income’ bucket.

GrIP	Actual	Benchmark	Relative
Growth	58.9%	58.0%	0.9%
Income	27.5%	25.0%	2.5%
Protection	11.5%	15.0%	-3.5%
Cash	2.1%	2.0%	0.1%

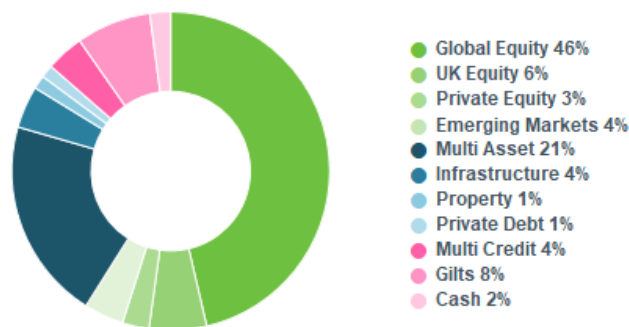
Whilst on the journey to its interim and long term targets for Property, Infrastructure and Private Debt, the current agreement is that the Fund will hold a higher allocation to DGF’s.

## Asset Allocation

Manager	Valuation (£m)		Actual Proportion	Benchmark	Relative
	Q2 2021	Q4 2021			
LGIM Global Equity	474.7	520.0	45.0%	40.0%	5.0%
LGIM UK Equity	63.3	67.4	5.8%	5.0%	0.8%
Capital Dynamics Private Equity	37.8	31.4	2.7%	5.0%	-2.3%
LCIV JP Morgan Emerging Markets	50.4	46.7	4.0%	5.0%	-1.0%
Blackrock Acs World Low Crbn	0.0	15.8	1.4%	3.0%	-1.6%
<b>Total Growth</b>	<b>626.1</b>	<b>681.2</b>	<b>58.9%</b>	<b>58.0%</b>	<b>0.9%</b>
LCIV Baillie Gifford Multi Asset	137.1	143.9	12.5%	7.5%	5.0%
LCIV Ruffer Multi Asset	91.4	93.2	8.1%	7.5%	0.6%
Alinda Infrastructure	22.7	24.0	2.1%	0.0%	2.1%
Capital Dynamics Infrastructure	8.8	6.0	0.5%	0.0%	0.5%
LCIV Infrastructure	13.2	19.5	1.7%	5.0%	-3.3%
Fidelity UK Real Estate	0.0	15.0	1.3%	5.0%	-3.7%
LCIV Private Debt Fund	0.0	15.9	1.4%	0.0%	1.4%
<b>Total Income</b>	<b>273.2</b>	<b>317.5</b>	<b>27.5%</b>	<b>25.0%</b>	<b>2.5%</b>
LCIV CQS MAC	43.6	44.6	3.9%	5.0%	-1.1%
BlackRock UK Gilts Over 15 yrs	85.7	87.9	7.6%	10.0%	-2.4%
<b>Total Protection</b>	<b>129.3</b>	<b>132.5</b>	<b>11.5%</b>	<b>15.0%</b>	<b>-3.5%</b>
Cash	47.6	24.4	2.1%	2.0%	0.1%
<b>Total Scheme</b>	<b>1076.2</b>	<b>1155.7</b>	<b>100.0%</b>	<b>100.0%</b>	

Figures may not add up due to rounding. The benchmark currently shown as the interim-target allocation as the first step in the journey towards the long-term target. As the Fund's allocations and commitments to private markets increase over time, we will move towards comparison against the long-term target.

## Asset class exposures



Following the results of the Q1 2020 investment strategy review, the following target allocations were agreed:

Interim  
 Growth – 58%  
 Income/Diversifiers – 25%  
 Protection plus cash – 17%

Long-term  
 Growth – 50%  
 Income/Diversifiers – 35%  
 Protection – 15%

The Fund is broadly in line with the interim target allocations for growth and income assets and cash, and underweight protection assets.

Of the c£24m in cash held at the quarter end, c£15m is due to be invested in the BlackRock Low Carbon fund in Q1 2022.

The LCIV infrastructure fund is still in its infancy with an expected 3 year ramp up phase. We therefore expect the Fund commitment of £50m to continue to be drawn down until end 2022.

The Fund's commitment to the LCIV private debt fund (made in March of this year) began drawing down in Q3 2021.

In Q4 2021, the Fund made a £15m investment in Fidelity's UK Real Estate Fund.

Total Fund return was positive during the period on both an absolute and relative basis. Longer term performance is also comfortably ahead of target.

UK equities lagged global markets over the period, due to the UK's higher weighting to cyclical sectors such as financials, industrials and basic materials, which underperformed over the period.

The Baillie Gifford multi-asset fund posted strong performance over the period, driven by listed equities, property and infrastructure allocations, which benefited from the ongoing economic recovery. Over 12 months, the returns achieved by Baillie Gifford and Ruffer are similar at c10% and well ahead of the benchmark return of 2.3%.

The CQS mandate produced a return of 2.2% over the period, and is also showing strong performance over the year.

Gilt yields fell over the period, leading to an increase in the value of the gilts portfolio.

## Manager performance

	Last 6 Months (%)			Last 12 months (%)			Last 3 years (% p.a.)		
	Fund	B'mark	Relative	Fund	B'mark	Relative	Fund	B'mark	Relative
<b>Growth</b>									
LGIM Global Equity	9.6	9.5	0.1	22.6	22.7	-0.0	20.1	20.1	-0.0
LGIM UK Equity	6.6	6.6	-0.0	18.3	18.3	-0.1	8.4	8.3	0.0
Capital Dynamics Private Equity	12.3	10.5	1.7	25.4	24.5	0.7	8.6	15.2	-5.7
LCIV JP Morgan Emerging Markets	-7.4	-5.7	-1.8	-4.6	-1.7	-3.0	8.4	8.7	-0.3
Blackrock Acs World Low Crbn	5.1	5.0	0.1	-	-	-	-	-	-
<b>Income</b>									
LCIV Baillie Gifford Multi Asset	5.0	1.0	3.9	9.4	2.3	7.0	7.9	2.7	5.1
LCIV Ruffer Multi Asset	2.0	1.0	1.0	10.3	2.3	7.8	9.7	2.7	6.8
Alinda Infrastructure	-	-	-	10.4	7.4	2.8	1.3	5.4	-3.9
Capital Dynamics Infrastructure	-	-	-	-32.3	7.4	-37.0	-19.1	5.4	-23.2
LCIV Infrastructure	-	-	-	2.7	7.4	-4.4	-	-	-
<b>Protection</b>									
LCIV CQS MAC	2.2	1.0	1.2	6.4	2.1	4.2	4.9	3.1	1.8
BlackRock UK Gilts Over 15 yrs	2.6	2.6	-0.0	-7.3	-7.3	0.1	-	-	-
<b>Total</b>	6.0	5.1	0.9	12.8	10.7	1.9	11.2	9.7	1.4

This table shows the new performance target measures, implemented for 2020. Please note the 3-year return is on the old benchmark basis.

Performance shown for the BlackRock ACS World Low Carbon Fund is since inception (3 September 2021)

Performance from Alinda, Capital Dynamics and the LCIV Infrastructure funds is based on information provided by Northern Trust. For such investments, there are more appropriate measures to assess performance. Furthermore, the LCIV's infrastructure sub-fund is still in its investment phase with initial drawdowns only occurring in Q1 2020. More detail on relevant measures of assessment for infrastructure funds is provided in the individual manager pages. This is also the case for Private Equity and Private Debt (see below) as asset classes.

The table above excludes the performance of the Fund's investment in the London CIV's Private Debt sub-fund. Given initial draw downs only occurred during Q2 2021, it still remains too early to report appropriate performance at this stage. As the Fund's commitments continue to be drawn under this mandate, and the size of investments increase, it will become more appropriate to report and consider return measures in percentage terms.

The table also excludes performance of the Fund's investment in the Fidelity UK Real Estate fund given investment was only made on 22 December 2021. Performance will be included from Q1 2022 onwards.

## Manager ratings

Manager/Mandate	Asset Class	Hymans Rating	RI Rating
LGIM	Global Equity	Preferred	Strong
LGIM	UK Equity	Preferred	Strong
LCIV JP Morgan	Emerging Markets	Suitable	Adequate
BlackRock	Acs World Low Crbn	Preferred	Adequate
Capital Dynamics	Private Equity	Suitable	Not Rated
LCIV Baillie Gifford	Multi Asset	Preferred	Good
LCIV Ruffer	Multi Asset	Positive	Adequate
Alinda	Infrastructure	Not Rated	Not Rated
Capital Dynamics	Infrastructure	Not Rated	Not Rated
LCIV	Infrastructure	Not Rated	Not Rated
LCIV	Private Debt	Not Rated	Not Rated
Fidelity	UK Real Estate	Preferred	Good
LCIV CQS	Multi Credit	Suitable	Not Rated
BlackRock	UK Gilts Over 15Yrs	Preferred	Not Rated

There were no manager rating changes to existing managers over the period.

There have been no changes to RI ratings over the period.

However, we would note the addition of three mandates within the table since the Q2 2021 report: the LCIV Private Debt Fund, Fidelity's UK Real Estate Fund and Blackrock's Acs World Low Carbon Fund.

Information on the rating categories can be found in the appendix.

We would note that whilst there has been no change in our (Hymans) manager ratings over the period, we are aware of developments at the LCIV in respect of the MAC mandate and CQS as the current manager. We understand that as of December 2021, CQS was moved back to 'normal monitoring' status as a result of improved performance against a range of criteria tracked by the LCIV. Further information on this development can be obtained via the LCIV.

As part of the Fund’s evolving Responsible Investment agenda and in recognition of climate risk, the Fund is committed to disclosing and monitoring climate metrics within its investment strategy where possible.

As a starting point, the Fund is reporting in line with information produced by its Pool, the London CIV. In time, the Fund will seek to evolve its climate risk monitoring process by monitoring against further metrics.

The information covered here captures the c88% of the Fund’s assets as at 31 December 2021. It excludes investments in property, private equity, infrastructure and private debt on account of the current lack of data in these areas.

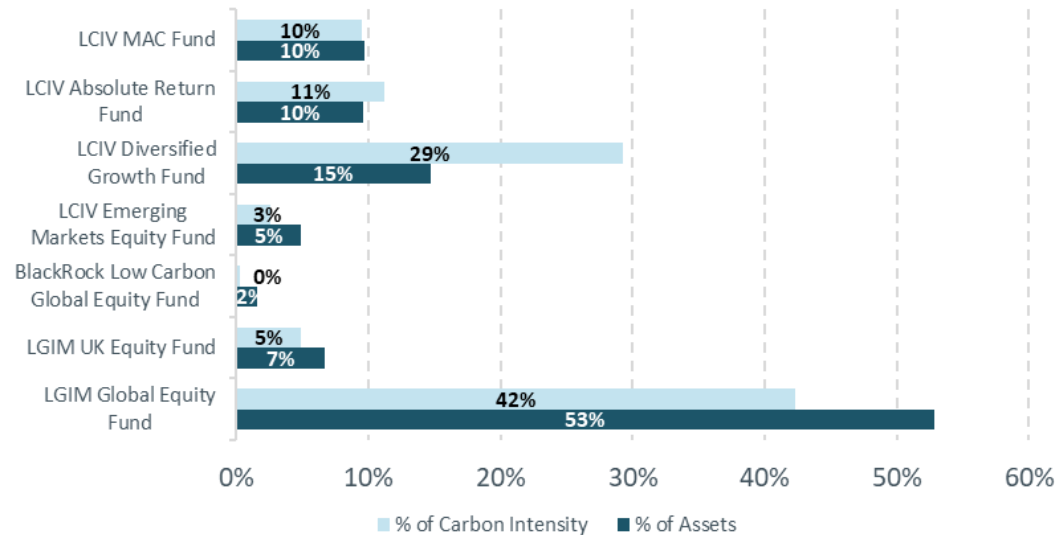
Despite only representing c.15% of assets shown here, the Baillie Gifford Diversified Growth fund is responsible for c.29% of the total carbon intensity.

### Climate Risk Overview

	Weighted Average Carbon Intensity (tCO2/\$m Sales)	Fossil Fuel exposure (any activity) (%)
<b>Fund</b>	<b>234.8</b>	<b>6.2%</b>
<i>Composite benchmark*</i>	<b>267.8</b>	<b>7.3%</b>
<i>Relative to benchmark</i>	<b>-33.0</b>	<b>-1.1%</b>

\*Composite benchmark reflects individual mandate benchmarks weighted by proportion invested

### Carbon Intensity by Manager



LGIM Global Equity

The LGIM global equity mandate returned a combined 9.6% over H2 2021. This comprised of 2.2% over Q3 and 7.2% in Q4.

Performance in global equity markets remains strong over longer periods.

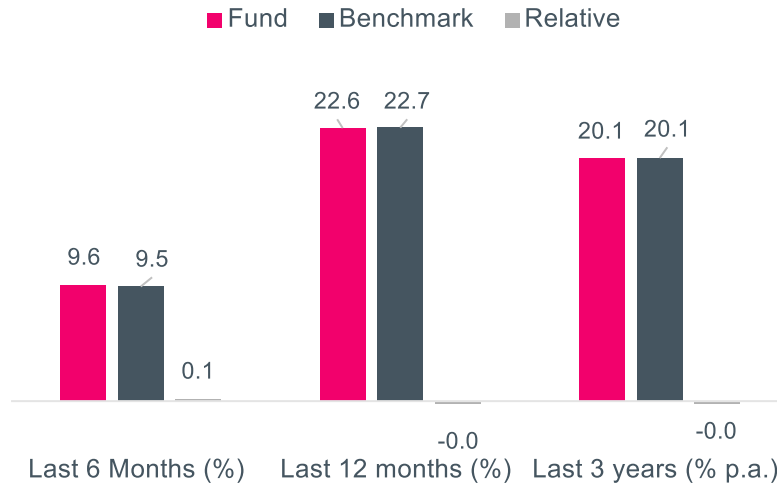
As a passively managed fund, it has matched its benchmark over all periods.

Q3 performance was more subdued as easing economic momentum, higher inflation, supply chain disruptions and possible easing of monetary support dampened market sentiment. Basic materials and consumer discretionary were key underperformers in this environment.

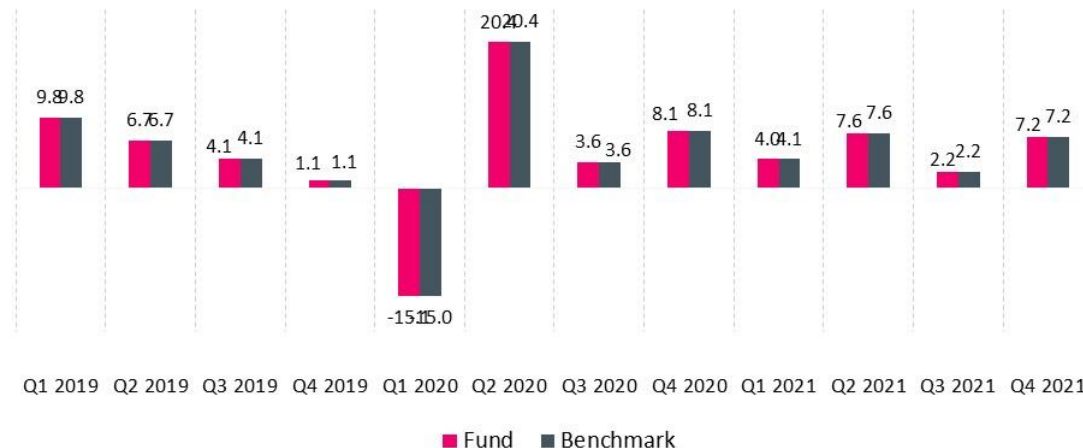
However, markets proved more resilient in Q4 despite increased volatility in the face of the emerging Omicron variant. Strong Q3 earning growth drove outperformance in the technology sector. Due to concerns over an economic slowdown, cyclical sectors lagged.

We continue to rate LGIM's passive equity capabilities as 'Preferred'.

Fund Performance vs benchmark



Historical Performance/Benchmark



LGIM UK Equity

The LGIM UK equity mandate returned 6.6% over the second half of 2021. This was made up of a 2.3% return over Q3 and 4.2% in Q4.

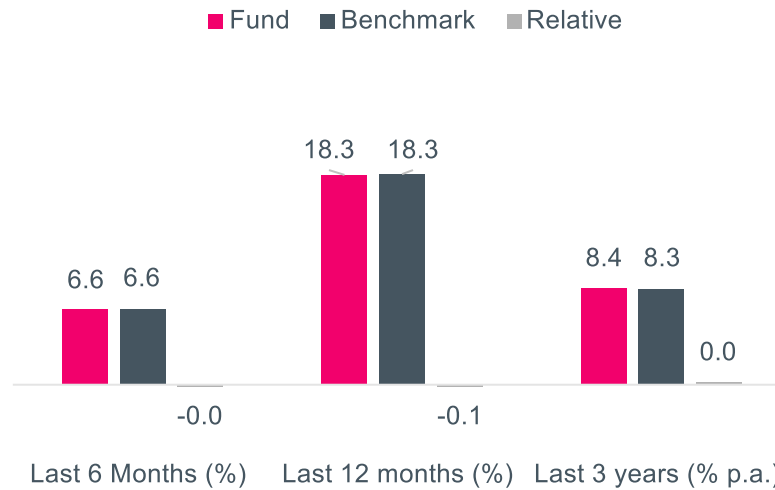
Performance over 12 months and 3 years is strong, albeit the UK market continues to lag its global counterparts at the longer end as a result of the higher weightings within the UK market to financials, industrials and materials.

Over the period the fund has performed in line with its benchmark as we would expect for a passively managed portfolio.

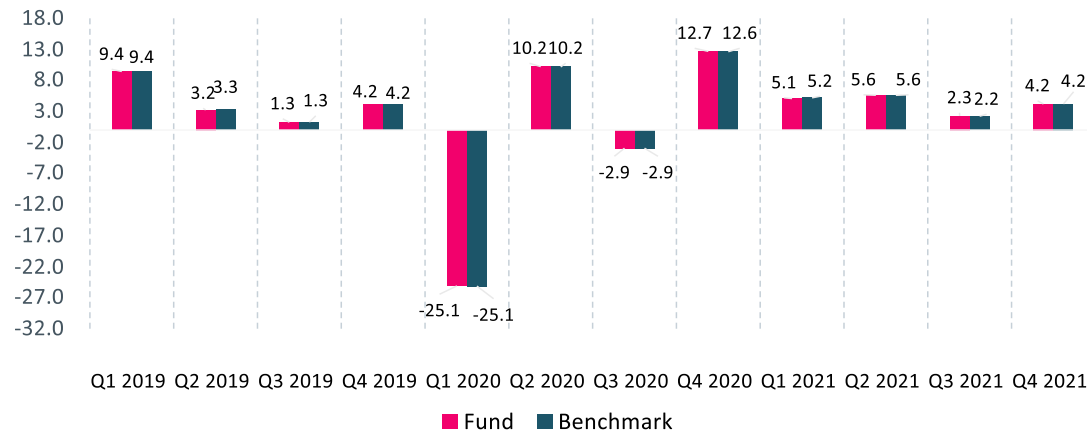
In Q3 2021, the UK outperformed wider equity markets due to its higher than average exposure to energy companies which benefited from rising oil and gas prices. A weakening Sterling also boosted the value of returns from overseas revenue. In Q4 2021, the UK market also proved resilient delivering strong positive returns but did lag global markets as the rotation away from cyclicals and back towards sectors like technology favoured the US in particular.

We continue to rate LGIM's passive equity capabilities as 'Preferred'.

Fund Performance vs benchmark



Historical Performance/Benchmark





LCIV JP Morgan Emerging Markets

The JP Morgan Emerging Markets fund returned -7.4% over the second half of 2021, against its benchmark of -5.7%. Over 12 months the fund has returned -4.6%, underperforming the benchmark by 3.0%.

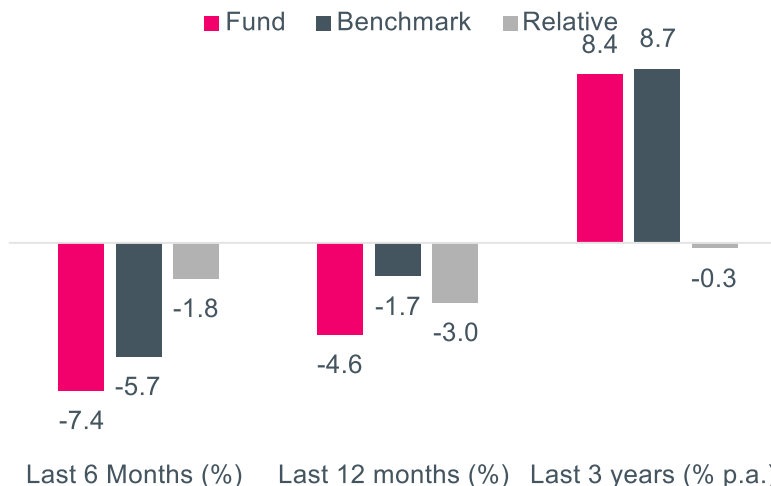
Both sector allocation and stock selection detracted from the fund's performance. Financial stocks contributed most to the underperformance, driven by China and India's zero-tolerance COVID-19 policies. HDFC Bank in India and insurer AIA (headquartered in Hong Kong), both fell victim to Omicron due to travel restrictions.

Tightening monetary policy and an increase in regulatory pressures, especially in China, hampered performance within emerging markets. Chinese government involvement in the gaming sector and restrictions on the time youths are allowed to spending online negatively impacted stock of tech and gaming giants in the period.

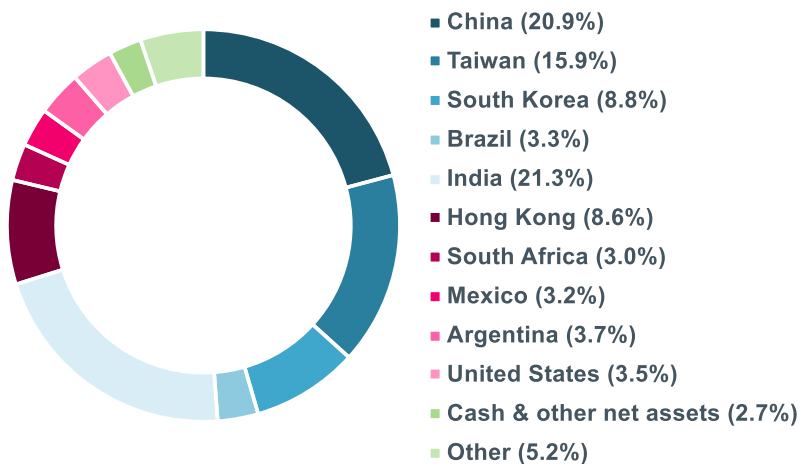
The manager believes three factors will impact emerging market equities in the short to medium term: COVID-19 concerns, cyclical sectors and the regulatory environment in China.

We continue to rate JP Morgan's Emerging Market equity fund as 'Suitable'.

Fund Performance versus benchmark



Fund Regional Allocation



Source: Investment Manager

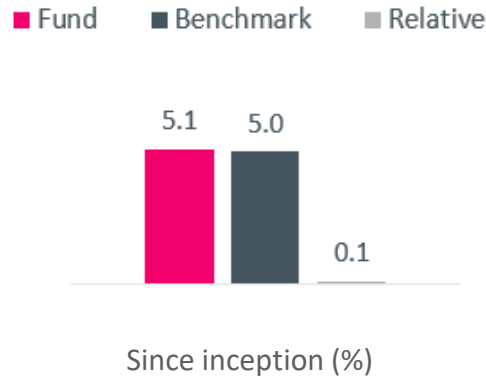
Blackrock ACS World Low Carbon

This is a new mandate with the Fund having made an initial investment in Q4 2021. A second investment in the Fund is scheduled to be made in Q1 2022.

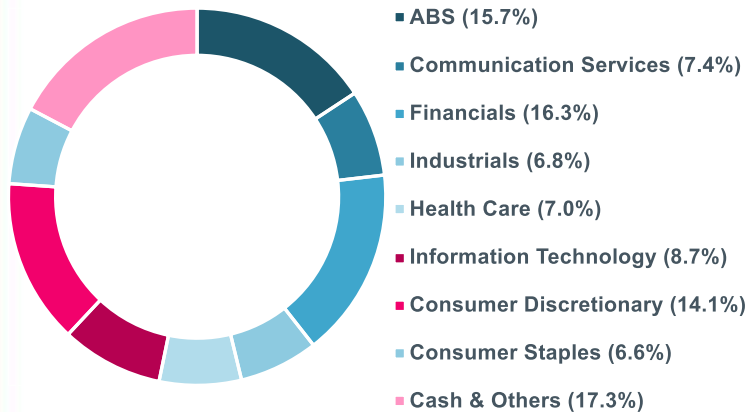
The Fund aims to closely track the performance of the MSCI World Low Carbon Target Reduced Fossil Fuel Index.

The fund returned a positive performance of 5.1% since inception in September 2021, outperforming its benchmark for the period by 0.1%.

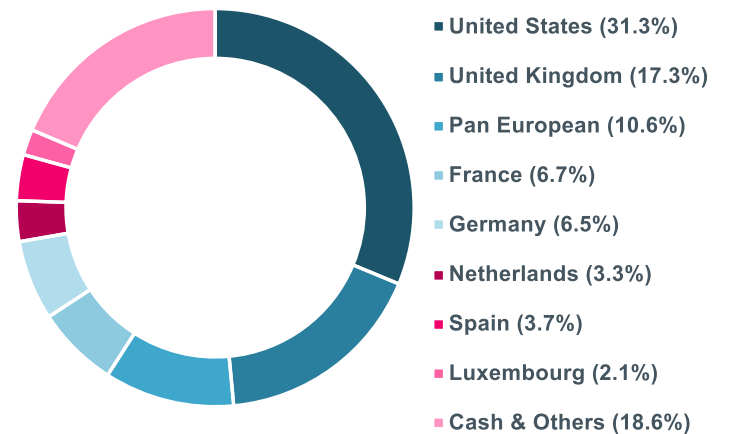
Fund performance vs benchmark



Sector allocation



Geographical breakdown



Capital Dynamics  
Private Equity

The Capital Dynamics Private Equity fund is invested across a range of sub-funds.

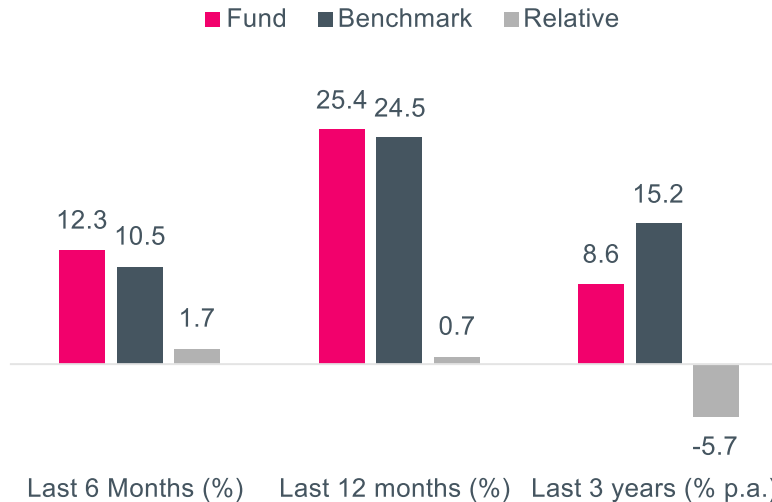
Based on information provided by Northern Trust, the fund returned 12.3% over the period ahead of its benchmark of 10.5% by 1.6%.

Over the more meaningful 3 year time period, the fund has returned 8.4% per annum although performance is behind benchmark and this the target return of MSCI All World +3% p.a. too.

In practice, there are two key metrics to assess performance for private equity investments; Internal Rate of Return (IRR) and the Total Value to Paid-In (TVPI) ratio.

The investment is at a mature stage meaning assessing the IRR (a percentage value) alongside the TVPI carries greater weight. As at 31 March 2021 the IRR was 13.0% with a TVPI of 1.66x.

Fund performance vs benchmark



Summary as at 30 June 2021

Total contributed:	c.91.5%
IRR:	10.4%
TVPI:	1.7x

LCIV Baillie Gifford Multi-asset

Over the second half of 2021, the fund outperformed its target of 1.0%, returning 5.0% net of fees. Performance over longer time periods months is also strong.

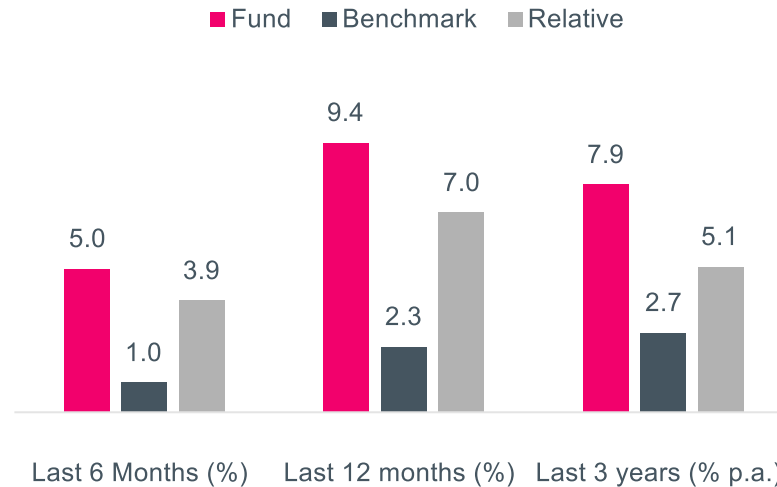
Key contributors to performance were the fund's exposures to listed equities, property and infrastructure.

Positive returns were partially offset by falls in the absolute return asset class. Additionally, key commodity holdings were affected by regulatory restrictions in China, e.g. slowdown in the Chinese property market caused a sharp decline in the price of metals.

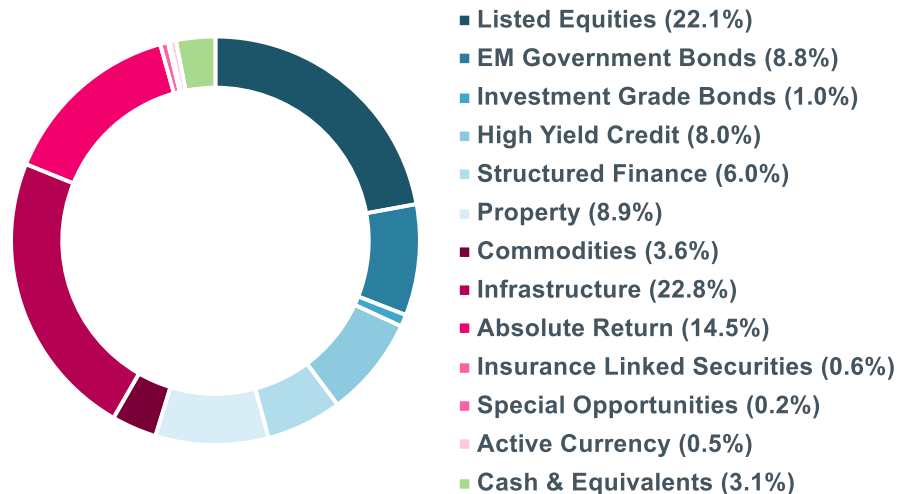
The manager made changes to its absolute return allocation, with a new position in an oil backward dated strategy and a volatility strategy which looks to perform well in spells of low volatility. Listed equity allocations were reduced to lower the number of cyclical stocks.

Ballie Gifford's positive outlook on the global economy is supported by the easing of restrictions in many developed economies, continuing effective vaccine rollout, and fiscal and monetary policies. The manager is optimistic on many new opportunities e.g. blockchain, crypto-assets and smart electricity.

Fund Performance versus benchmark



Fund Asset Allocation



LCIV Ruffer Multi-asset

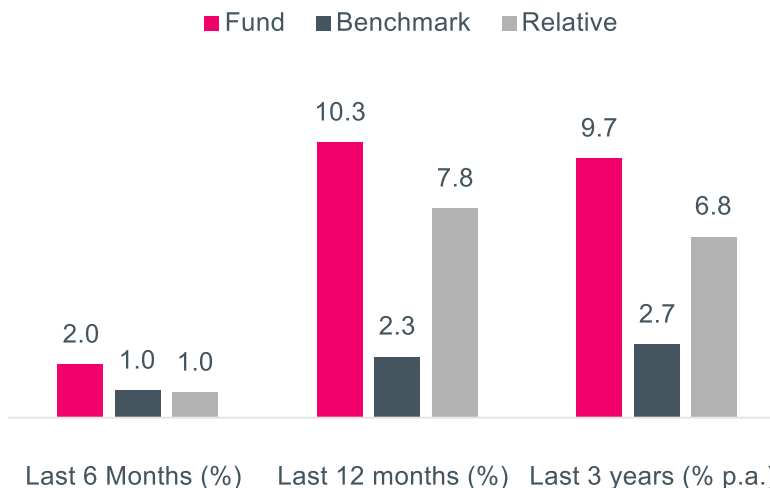
The Ruffer Multi-Asset fund returned 2.0% over the last 6 months, outperforming the benchmark by 1.0%. Longer term performance remains strong.

Performance was largely driven by positive performance of equities, which proved resilient despite headwinds in the face of inflation, supply chain constraints and the emergence of Omicron. A further boost for the portfolio resulted from the performance of inflation linked government bonds as investors sought protection from rising inflation.

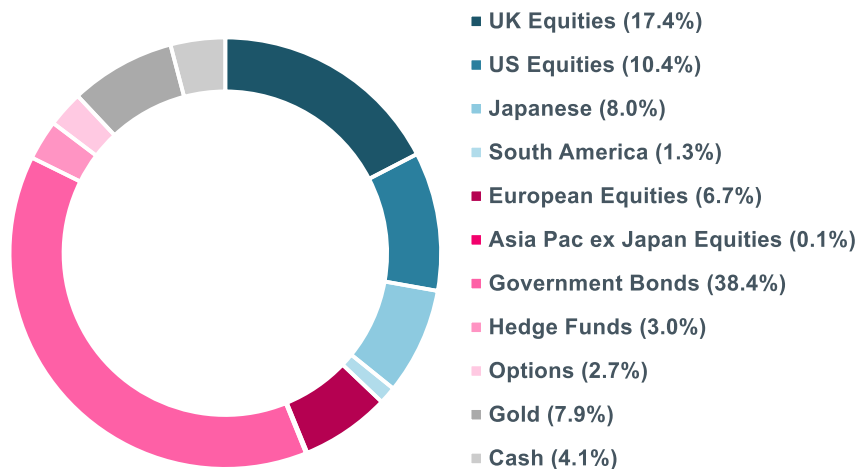
Due to poor performance in Q3, Ruffer reduced exposure to gold and gold producers, however these performed well in Q4, adding 0.7% to performance. Additionally, the manager adjusted its interest rate exposure during Q4 in response to increased volatility in the bond markets, which saw the fund incur some losses over Q4.

The portfolio position going forward remains focused on protecting the fund against long-term inflation and volatility from inflation in markets. As such, the manager has chosen to focus on assets that perform well during reflation periods, in particular, equities and inflation linked bonds. The manager also holds a number of equity options to mitigate against market volatility.

Fund Performance versus benchmark



Fund Asset Allocation



Source: Investment Manager

Alinda Infrastructure

Target: Absolute return of 8.0% p.a.

The two key metrics to assess performance for infrastructure investments are the Internal Rate of Return (IRR) and the Total Value to Paid-In (TVPI) ratio.

At the beginning it is too early to assess performance on a purely percentage basis. TVPI is more informative. This essentially seeks to outline what the Fund has achieved (its return) so far as a multiple of the deployed capital to date.

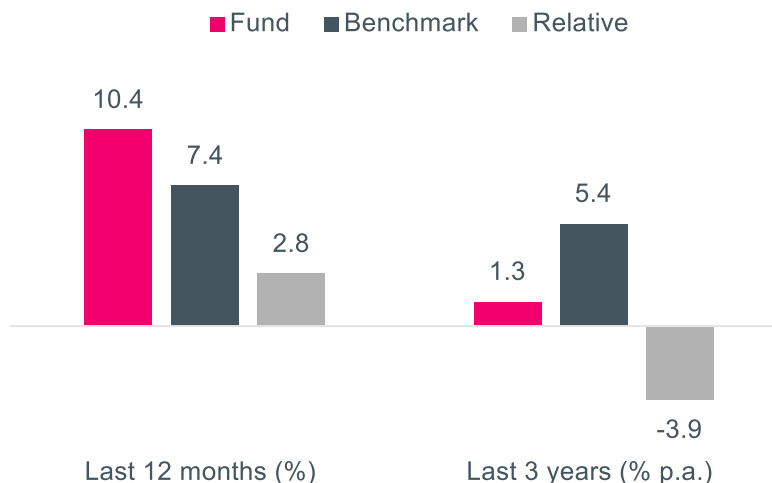
Remaining capital commitments as at 30 September are as follows:

Alinda II: \$3,308,129  
Alinda III: \$8,174,528

The following net distributions (distributions less contributions) were made over Q3 and Q4 2021:

Alinda II: \$1,302,381  
Alinda III: \$277,960

Fund performance vs benchmark



Summary as at 30 September 2021 (\$)

	Alinda Fund II	Alinda Fund III
IRR (Gross)	5.3%	21.8%
IRR (Net)	2.7%	14.6%
Cash yield	6.9%	10.1%
TVPI (Net)	1.1x	1.4x

LCIV Infrastructure

Target: Absolute return of 8.0-10.0% p.a.

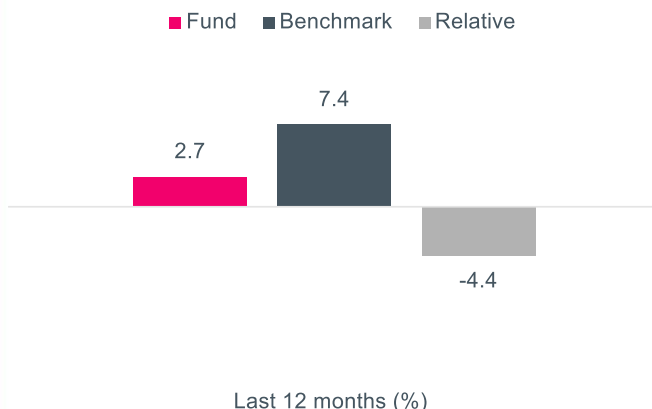
The LCIV Infrastructure fund is managed by Stepstone.

The two key metrics to assess performance for infrastructure investments are the Internal Rate of Return (IRR) and the Total Value to Paid-In (TVPI) ratio.

At this stage of investment, it is too early to assess performance on a purely percentage basis. TVPI is more informative. This essentially seeks to outline what the Fund has achieved (its return) so far as a multiple of the deployed capital to date. We will be able to provide TVPI figures in future reports.

The LCIV Infrastructure fund is in the ramp-up stage, with a further £1.5m drawn down over Q3, bringing the NAV at 30 September 2021 to £15.6m (provided by LCIV). This NAV will be different to that provided by Northern Trust (NT) in their 30 September 2021 report due to the need for estimation by NT given the lagged reporting of actual NAV.

Fund performance vs benchmark

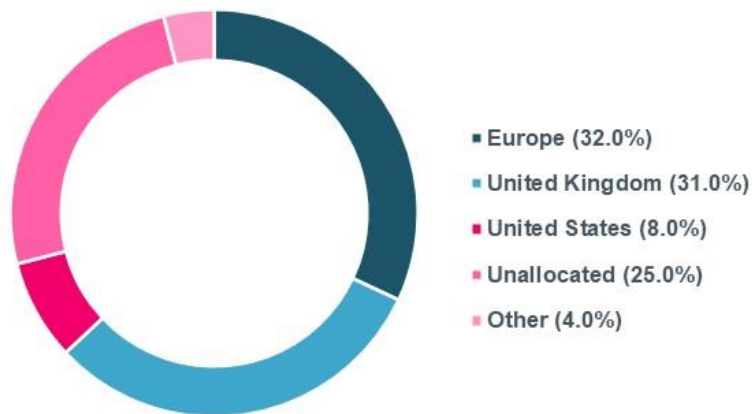


Fund Statistics as at 30 September 2021 (£m)

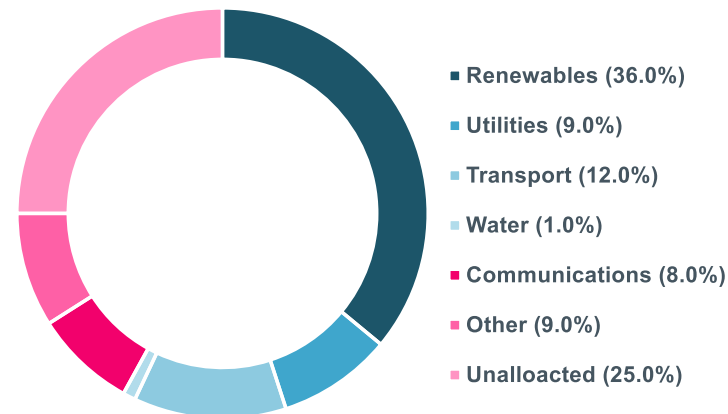
Capital committed	£50.0
Total contributed	£15.3
Distributions	£0.0
Value created	£0.3
Net asset value *	£15.6

\*as provided by LCIV

Fund Geographical Allocation (30 September 2021)



Fund Sector Allocation (30 September 2021)



Capital Dynamics Infrastructure

Target: Absolute return of 8.0% p.a.

The Fund's holdings are currently solely held within the Capital Dynamics Clean Energy and Infrastructure fund.

The two key metrics to assess performance for infrastructure investments are the Internal Rate of Return (IRR) and the Total Value to Paid-In (TVPI) ratio.

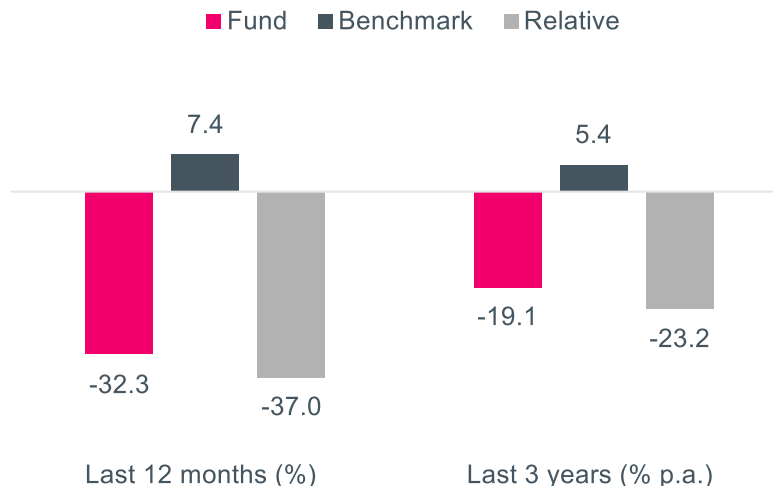
With the fund having deployed most of the capital commitment it is appropriate to assess performance on both measures.

Reporting on underlying commitments is as at 30 September 2021 due to the lag in reporting from the manager, which is typical for funds of this nature.

As can be seen by both the IRR and TVPI, performance has been lower than expected to date, although running performance has marginally improved over the 6 months since 31 March 2021.

This level of performance is primarily driven by challenges experienced by one project in particular which represents a material proportion of the fund. This is a Texas wind power project, which the manager has previously acknowledged.

Fund performance vs benchmark



Summary as at 30 September 2021 (figures in \$m where applicable)

Capital committed	\$15.0	Net IRR since inception	(5.7%)
Total contributed	\$14.7	Total value-to-paid-in-ratio (TVPI)	0.67x
Distributions	\$1.2		
Value created	(\$5.4)		
Net asset value	\$8.1		

Source: Investment Manager



## LCIV Private Debt Fund

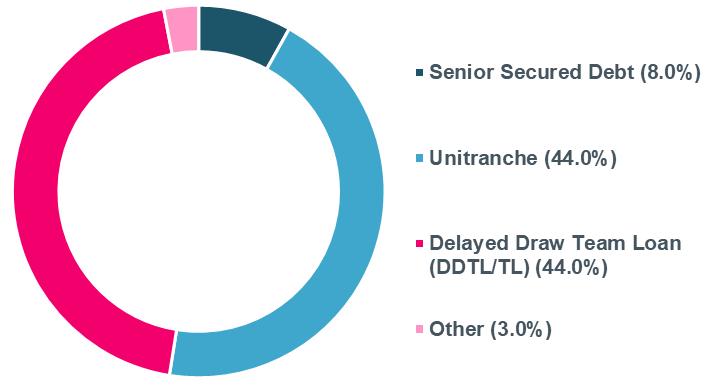
Target: Absolute return of c6.0%

The LCIV Private Debt Fund consists of two underlying managers: Pemberton and Churchill.

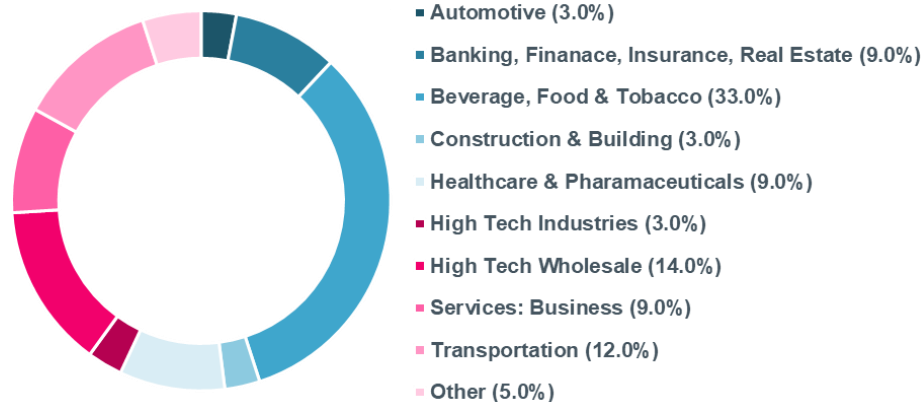
The two key metrics to assess performance for private debt investments are the Internal Rate of Return (IRR) and the Total Value to Paid-In (TVPI) ratio.

At this stage of investment, it is too early to assess performance on a purely percentage basis. TVPI is more informative. This essentially seeks to outline what the Fund has achieved (its return) so far as a multiple of the deployed capital to date. We will be able to provide TVPI figures in future reports.

### Portfolio investment type



### Sector allocation



LCIV CQS Multi Credit

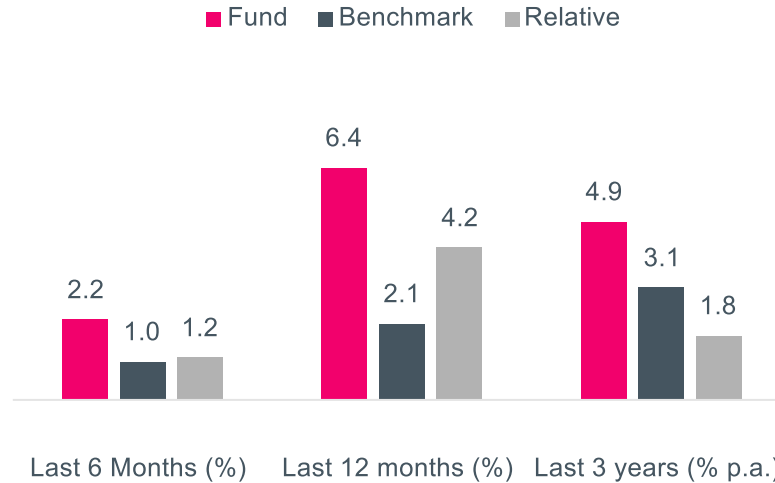
Over the second half of 2021 the LCIV's multi-asset credit strategy returned 2.2% against a benchmark of 1.0%. Performance was broadly similar over the two quarters. 12 month performance has been strong, with the fund returning 6.4%. This recent improvement in performance has resulted in longer term performance being ahead of benchmark.

The third quarter was saw positive returns earned during July and August when market conditions remained relatively calm. September brought volatility to fixed income markets as concerns over rising inflation saw yields increase on government bonds.

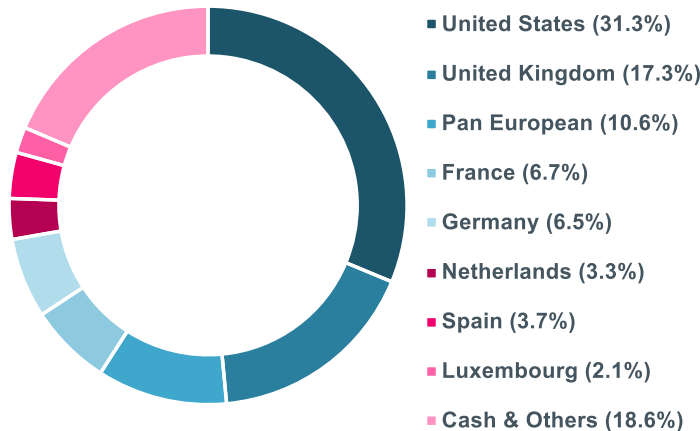
Volatility continued into Q4 although strong corporate balance sheets and earning growth lent fundamental support.

Loans, in particular senior secured, outperformed high yield bonds over the period. The mandates bias towards this asset class proved favourable. From a regional perspective, the European market outperformed their US counterparts. The manager continues to position the portfolio with a European bias due to what they view as attractive relative value and a better landscape. in Europe.

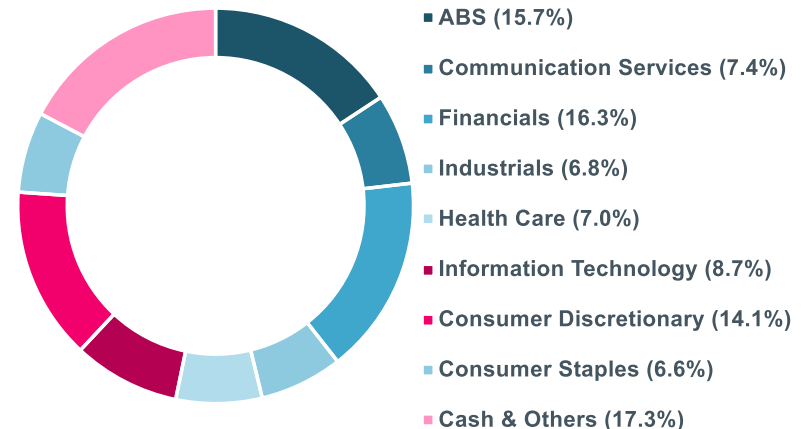
Fund performance vs benchmark



Country Weights



Sector Weights



Source: Investment Manager

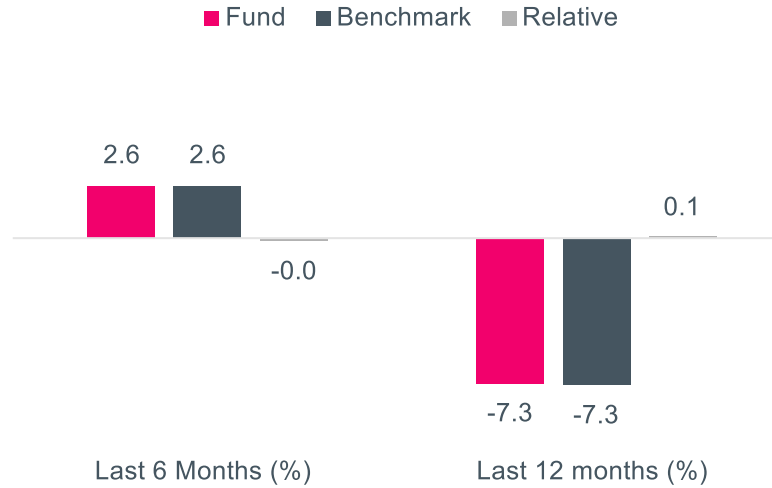
## BlackRock UK Gilts

BlackRock were appointed in March 2019 to oversee the Fund's bond allocation.

It is a passively managed mandate aimed at matching the FTSE UK Gilts Over 15 Yrs index.

Over the period the fund returned 2.6% as longer dated gilt yields fell over Q4 2021. This fall and the subsequent gain in value offset the negative returns experienced over Q3 2021.

## Fund performance vs benchmark



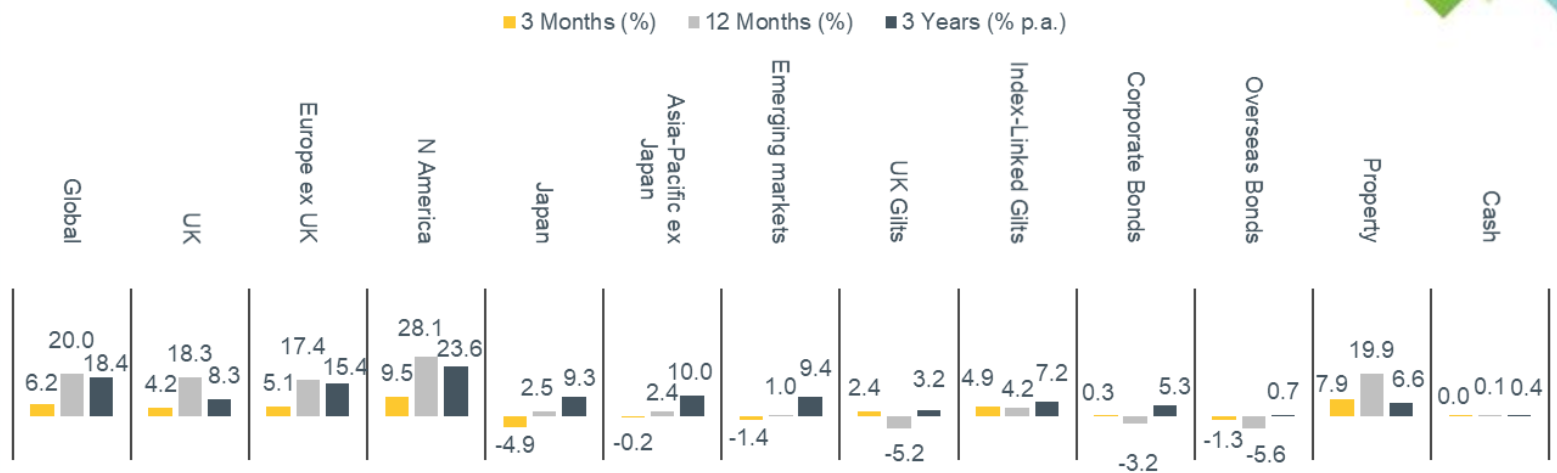
Economic momentum has slowed as rising COVID cases have led to a modest re-imposition of restrictions and increasing social distancing. This is expected to weigh on growth in Q4 2021 and Q1 2022, but we still anticipate above-trend growth in 2022.

There are signs that the strain on supply chains is easing, though the overall rate of price increases remains high. UK headline CPI inflation rose to 5.1% year-on-year in November whilst the equivalent US and eurozone measures rose to 6.8% and 4.9% respectively. In response, the Federal Open Markets Committee (FOMC) announced plans to accelerate the tapering of asset purchases, with the median FOMC member forecasting three rate hikes next year. The Bank of England raised rates to 0.25% p.a., with further rate hikes expected in 2022.

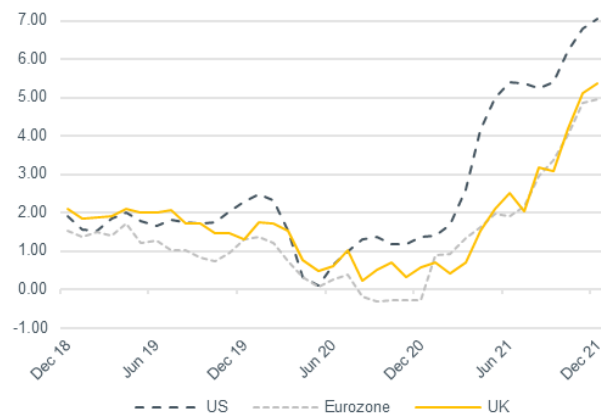
Trade-weighted sterling rose 1.7% through the quarter as markets adjusted for the earlier than expected rate rises. The US dollar rose 0.6% in trade-weighted terms, perhaps reflecting both safe haven appeal and slightly more hawkish messaging from the Federal Reserve.

US and UK bond yield curves flattened with short-term yields rising to reflect expectations of further interest rate hikes. Long-term yields remained largely unchanged. UK 10-year implied inflation, as measured by the difference between conventional and inflation-linked bonds of the same maturity, ended the quarter a little higher at 3.9% p.a. whilst longer term implied inflation fell. US 10-year implied inflation rose 0.2% p.a. to 2.6% p.a.

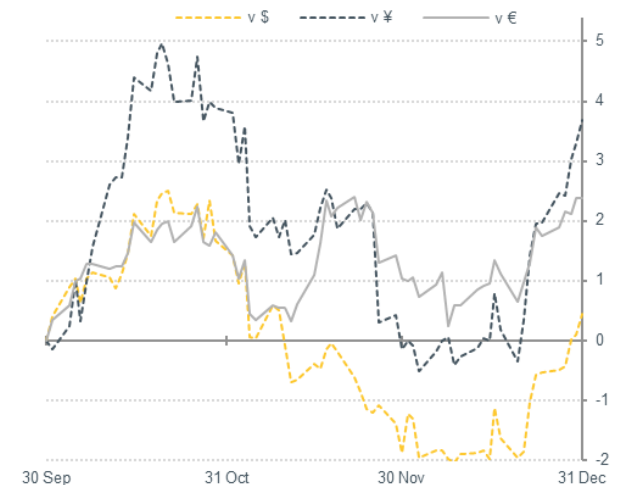
### Historic returns for world markets <sup>[1]</sup>



### Annual CPI Inflation (% p.a.)



### Sterling trend chart (% change)



Source: DataStream. <sup>[1]</sup>Returns shown in Sterling terms. Indices shown (from left to right) are: FTSE All World, FTSE All Share, FTSE AW Developed Europe ex-UK, FTSE North America, FTSE Japan, FTSE AW Developed Asia Pacific ex-Japan, FTSE Emerging, FTSE Fixed Gilts All Stocks, FTSE Index-Linked Gilts All Maturities, iBoxx Corporates All Investment Grade All Maturities, JP Morgan GBI Overseas Bonds, MSCI UK Monthly Property; UK Interbank 7 Day.

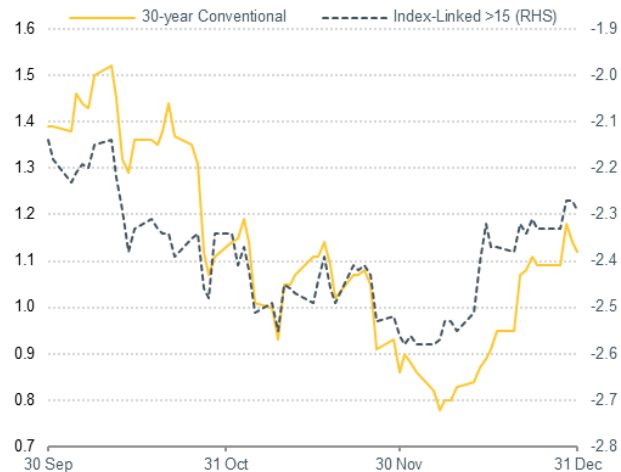
Global investment-grade spreads increased by 0.1% p.a. to 1.0% p.a., whilst speculative-grade spreads ended the quarter broadly in line with end-September levels at 3.7% p.a.

Despite falling in November over Omicron variant concerns, global equities produced a total return of 7.0% in Q4, propelled higher by strong earnings growth. Sterling strength weighed on returns to unhedged UK investors delivering a 6.2% return in sterling terms. All sectors produced positive returns except telecoms, on an absolute basis. Outside telecoms, energy and financials were the main underperformers, weighed on by demand expectations and flatter yield curves, respectively. Technology was the notable outperformer, bolstered by strong earnings releases and the prospect of further lockdowns spurring demand for tech.

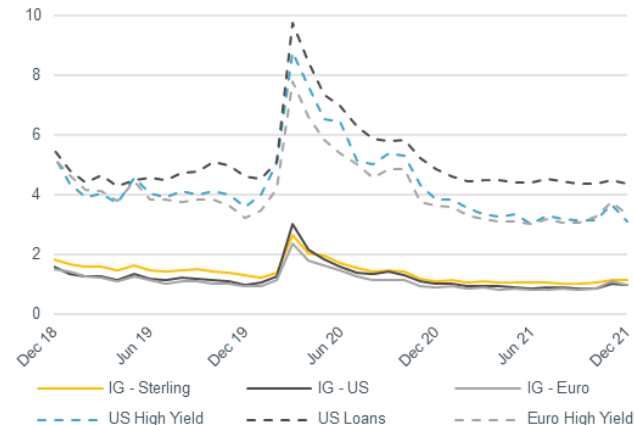
North America posted double digit returns on the back of tech outperformance. Japan, which reintroduced strict border restrictions shortly after the Omicron variant was made public, is at the bottom of the regional performance rankings over the quarter. Asian and emerging markets also continued their underperformance versus developed markets.

UK Monthly Property capital value index rose 13.9% over the 12 months to end December due to a buoyant industrial sector, where capital values have risen 32.5%. Retail capital values have risen by 6.9% over 12 months. There has been a flattening of the declines experienced in the office sector, delivering marginally positive capital growth of 0.1% over 2021. Total return on the index, including income, was 19.9% in the 12 months to end December.

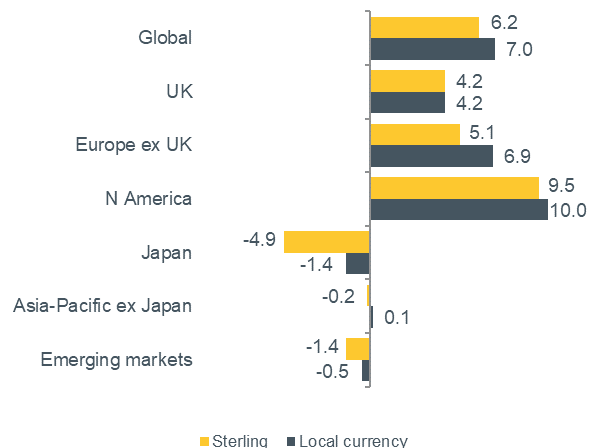
## Gilt yields chart (% p.a.)



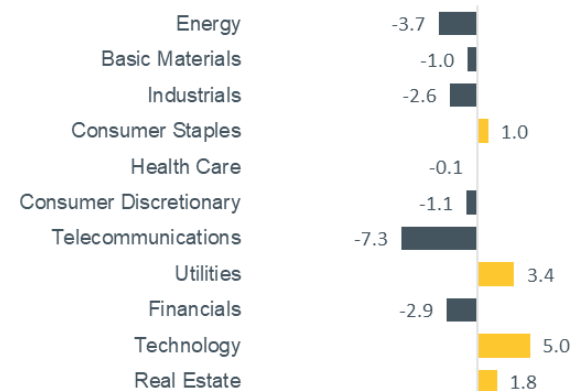
## Investment and speculative grade credit spreads (% p.a.)



## Regional equity returns [1]



## Global equity sector returns (%) [2]



Source: DataStream, Barings, ICE [1] FTSE All World Indices. Commentary compares regional equity returns in local currency. [2] Returns shown in Sterling terms and relative to FTSE All World. FTSE indices migrated to a new ICB structure in Q1 2021.

## Hymans Rating

Preferred	Our highest rated managers in each asset class. These should be the strategies we are willing to put forward for new searches.
Positive	We believe there is a strong chance that the strategy will achieve its objectives, but there is some element that holds us back from providing the product with the highest rating.
Suitable	We believe the strategy is suitable for pension scheme investors. We have done sufficient due diligence to assess its compliance with the requirements of pension scheme investors but do not have a strong view on the investment capability. The strategy would not be put forward for new searches based on investment merits alone.
Negative	The strategy is not suitable for continued or future investment and alternatives should be explored.
Not Rated	Insufficient knowledge or due diligence to be able to form an opinion.

## Responsible Investment

Strong	Strong evidence of good RI practices across all criteria and practices are consistently applied.
Good	Reasonable evidence of good RI practices across all criteria and practices are consistently applied.
Adequate	Some evidence of good RI practices but practices may not be evident across all criteria or applied inconsistently.
Weak	Little to no evidence of good RI practices.
Not Rated	Insufficient knowledge to be able to form an opinion on.

## Risk Warning

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investment in developing or emerging markets may be more volatile and less marketable than in mature markets. Exchange rates may also affect the value of an investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.

In some cases, we have commercial business arrangements/agreements with clients within the financial sector where we provide services. These services are entirely separate from any advice that we may provide in recommending products to our advisory clients. Our recommendations are provided as a result of clients' needs and based upon our independent research. Where there is a perceived or potential conflict, alternative recommendations can be made available.

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## Geometric v Arithmetic Performance

Hymans Robertson are among the investment professionals who calculate relative performance geometrically as follows:

$$\frac{(1 + \text{Fund Performance})}{(1 + \text{Benchmark Performance})} - 1$$

Some industry practitioners use the simpler arithmetic method as follows:

$$\text{Fund Performance} - \text{Benchmark Performance}$$

The geometric return is a better measure of investment performance when compared to the arithmetic return, to account for potential volatility of returns.

The difference between the arithmetic mean return and the geometric mean return increases as the volatility increases.