# London Borough of Brent Pension Fund

## Q1 2020 Investment Monitoring Report

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The Fund's assets underperformed against the aggregate benchmark over the first quarter of 2020. The Fund returned -10.7% over the quarter, underperforming its benchmark by 3.2%. This was partly as a result of manager underperformance and partly as a consequence of measuring against absolute return style benchmarks in volatile markets. The Fund should note that performance since quarter end has been positive.

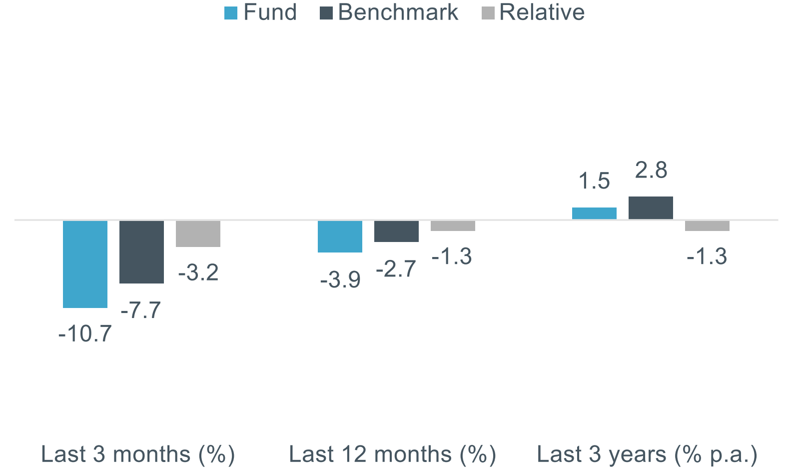
The value of the Fund's assets fell by £99.5m over the quarter, from £934.8m to £835.3m.

The global spread of the coronavirus had a dramatic effect on financial markets. Risk assets, particularly global equities fell significantly from late February with volatility persisting through to the quarter end.

Credit markets also suffered which will have impacted the Fund's multi-asset mandates. Within credit, investment grade outperformed high-yield markets although both experienced negative quarters.

Over the quarter the Fund received its first capital call for the LCIV Infrastructure fund.

## Fund performance vs benchmark/target




## High Level Asset Allocation

As part of the investment strategy review carried out in Q1 2020, the Fund's DGF mandates were recategorised as 'Diversifiers' and included within the 'Income' bucket.

| GrIP | Actual | Benchmark | Relative |
|---|---|---|---|
| Growth (Listed Equity, Private Equity) | 55.3% | 55.0% | 0.3% |
| Income (DGF, Property, Infrastructure) | 23.5%* | 30.0% | -6.5% |
| Protection (Bonds, Multi-asset Credit) | 21.2%** | 15.0% | 6.2% |

*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 the excess assets within the DGF's, most notably the Baillie Gifford diversified growth allocation.
**Includes 6.5% currently held in cash.

The value of the Fund's assets fell by £99.5m over the quarter, from £934.8m to £835.3m.

The fall in value was spread across the majority of asset classes as markets reacted to the global spread of COVID-19.

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

Interim
Growth – 55%
Income/Diversifiers – 30%
Protection – 15%

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

The Fund's DGF mandates were also recategorised as 'Diversifiers' and included within the 'Income' bucket. As a result, the Fund is broadly in line with its target growth and protection (notwithstanding cash) allocations at a strategy level but underweight income.

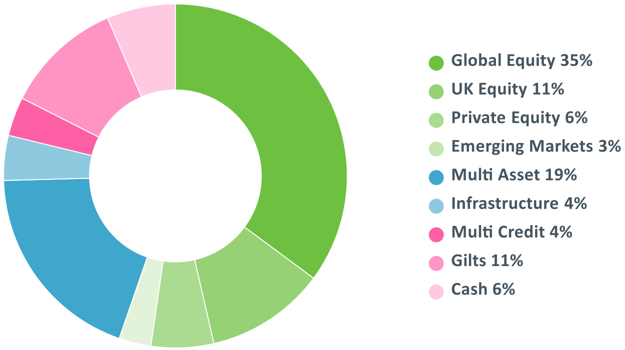
Over the quarter the Fund received its first capital call for the LCIV Infrastructure fund. As its commitments to this mandate increase over time, its underweight allocation to income will recede.

## Asset Allocation

| Manager | Valuation (£m) | | Actual Proportion | Benchmark | Relative |
|---|---|---|---|---|---|
| | Q4 2019 | Q1 2020 | | | |
| LGIM Global Equity | 345.4 | 293.4 | 35.1% | 40.0% | -4.9% |
| LGIM UK Equity | 125.6 | 94.1 | 11.3% | 5.0% | 6.3% |
| Capital Dynamics Private Equity | 46.8 | 49.1 | 5.9% | 5.0% | 0.9% |
| JP Morgan Emerging Markets | 30.6 | 25.2 | 3.0% | 5.0% | -2.0% |
| **Total Growth** | **548.5** | **461.9** | **55.3%** | **55.0%** | **0.3%** |
| Baillie Gifford Multi Asset | 128.9 | 110.8 | 13.3% | 10.0% | 3.3% |
| Ruffer Multi Asset | 51.3 | 50.1 | 6.0% | 10.0% | -4.0% |
| Alinda Infrastructure | 23.0 | 24.6 | 2.9% | 0.0% | 2.9% |
| Capital Dynamics Infrastructure | 10.6 | 10.1 | 1.2% | 0.0% | 1.2% |
| Aviva Property | 0.1 | 0.1 | 0.0% | 0.0% | 0.0% |
| London LGPS CIV Infrastructure | 0.0 | 0.5 | 0.1% | 10.0% | -9.9% |
| **Total Income** | **213.9** | **196.3** | **23.5%** | **30.0%** | **-6.5%** |
| CQS Multi Credit | 36.8 | 30.6 | 3.7% | 5.0% | -1.3% |
| BlackRock UK Gilts Over 15 yrs | 83.2 | 92.6 | 11.1% | 10.0% | 1.1% |
| **Total Protection** | **120.1** | **123.2** | **14.7%** | **15.0%** | **-0.3%** |
| Cash | 52.3 | 53.9 | 6.5% | 0.0% | 6.5% |
| **Total Scheme** | **934.8** | **835.3** | **100.0%** | **100.0%** | |

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




*Source: Investment Managers*

Total Fund return was negative during Q1 2020, on both an absolute and relative basis as a result of the impact of COVID-19 on markets. Consequently, 12-month performance has moved into negative territory as a result.

Equity markets bore the brunt of the downturn. Global equities faired better than UK due to currency movements favouring global returns and the lower weighting to oil & gas and materials companies. This can be seen in the performance of LGIM's mandates; global returned -15.1% and UK -25.1%.

The Fund's DGF mandates had contrasting fortunes over the first quarter. Whilst Baillie Gifford returned -14.0%, Ruffer better navigated the market turmoil to minimise losses, a -2.3% return.

The CQS mandate has also suffered as credit spreads widened, particularly in the high yield space.

On the flip side, gilts rallied as investors searched for shelter from the equity crosswinds. They were also supported by the decisive action taken by governments, namely the package of monetary and fiscal measures to support economies. BlackRock's mandate has delivered strong return since its inception in 2019.

## Manager performance

| | Last 3 months (%) | | | Last 12 months (%) | | | Last 3 years (% p.a.) | | |
|---|---|---|---|---|---|---|---|---|---|
| | Fund | B'mark | Relative | Fund | B'mark | Relative | Fund | B'mark | Relative |
| **Growth** | | | | | | | | | |
| LGIM Global Equity | -15.1 | -15.0 | **-0.0** | -4.6 | -4.6 | **-0.0** | 3.1 | 3.1 | **0.0** |
| LGIM UK Equity | -25.1 | -25.1 | **0.0** | -18.4 | -18.5 | **0.0** | -4.2 | -4.2 | **0.1** |
| Capital Dynamics Private Equity | 7.0 | -15.3 | **26.4** | 8.2 | -10.4 | **20.8** | 13.1 | 1.5 | **11.5** |
| Baillie Gifford Multi Asset | -14.0 | 0.6 | **-14.6** | -8.8 | 3.3 | **-11.8** | -1.4 | 3.8 | **-5.0** |
| Ruffer Multi Asset | -2.3 | 0.6 | **-2.9** | 3.2 | 3.3 | **-0.1** | 0.5 | 3.8 | **-3.2** |
| JP Morgan Emerging Markets | -17.5 | -18.4 | **1.0** | -16.6 | -13.5 | **-3.6** | | | |
| **Income** | | | | | | | | | |
| Alinda Infrastructure | | | | 13.0 | 4.7 | **7.8** | -4.9 | 6.9 | **-11.0** |
| Capital Dynamics Infrastructure | | | | -11.3 | 4.7 | **-15.3** | -3.3 | 6.9 | **-9.5** |
| **Protection** | | | | | | | | | |
| CQS Multi Credit | -17.0 | 0.8 | **-17.6** | -13.9 | 4.0 | **-17.2** | | | |
| BlackRock UK Gilts Over 15 yrs | 11.2 | 11.2 | **0.0** | 17.7 | 17.6 | **0.1** | | | |
| **Total** | -10.7 | -7.7 | **-3.2** | -3.9 | -2.7 | **-1.3** | 1.5 | 2.8 | **-1.3** |

Performance from Alinda and Capital Dynamics Infrastructure is based on information provided by Northern Trust. In Q4 2019 the benchmark for these funds was updated to be CPI+ 2% p.a. rather than absolute 8% p.a. As such the 12 month and 3 year benchmark figures represent a blended rate.

Note, for infrastructure investments, there are more appropriate measures to assess performance. Performance in respect of Alinda is skewed by the Alinda III fund which is in the relatively early stages. It is therefore difficult to judge performance from this mandate at this stage on a purely percentage basis. However, as the Fund's commitments continue to be drawn, and the size of investments increase, it will become more appropriate to consider return measures in percentage terms. More detail on relevant measures of assessment for infrastructure funds are provided in the individual manager pages. This is also the case for Private Equity as an asset class.

The table above also excludes the opening quarters performance of the Fund's investment in the London CIV's infrastructure sub-fund. Given initial draw downs only occurred during Q1 2020, it remains too early to report appropriate performance at this stage. Like the Alinda above, 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. At this stage, we have also not included a separate manager page.

*Source: Fund performance provided by Investment Managers and is net/gross of fees. Benchmark performance provided by Investment Managers and DataStream*

# Manager Ratings



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

Baillie Gifford remains ‘Preferred – On-watch’ due to recent personnel changes, namely the retirement of Patrick Edwardson (Head of Multi-Asset) in April 2020. We continue to monitor Baillie Gifford as a result although at present still rate them highly as a multi-asset manager.

## Manager ratings

| Mandate | Mandate | Hymans Rating |
|---|---|---|
| LGIM | Global Equity | Preferred |
| LGIM | UK Equity | Preferred |
| Henderson | Emerging Markets (LCIV) | Suitable |
| Capital Dynamics | Private Equity | Suitable |
| Baillie Gifford | Multi Asset (LCIV) | Preferred - On-watch |
| Ruffer | Multi Asset (LCIV) | Positive |
| Alinda | Infrastructure | Not Rated |
| Capital Dynamics | Infrastructure | Not Rated |
| London LGPS CIV | Infrastructure | Not Rated |
| CQS | Multi Credit (LCIV) | Suitable |
| BlackRock | UK Gilts Over 15Yrs | Preferred |

## LGIM business update

Legal & General announced that Margaret Ammon has assumed her responsibilities as Chief Risk Officer over the quarter. She is supported by Camille Blackburn, Chief Compliance Officer who also joined the business over the quarter after the retirement of Teresa Poy. There were no other significant changes to update over the quarter.

*Source: Investment Managers*

## LGIM Global Equity

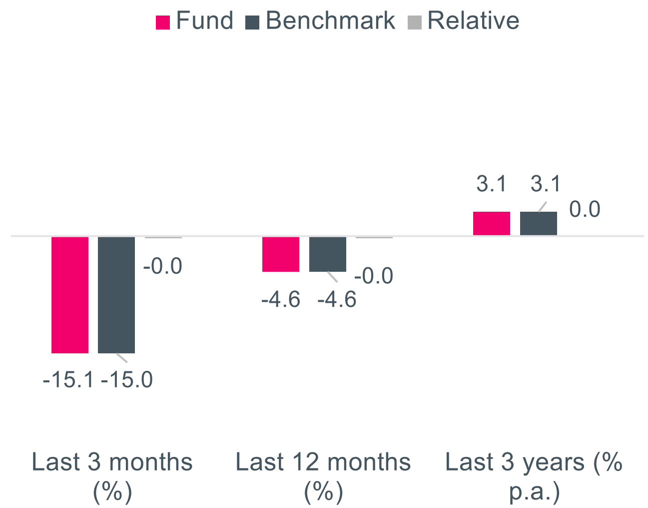
The LGIM global equity mandate returned -15.1% over the quarter. As a passively managed fund, it has matched its benchmark over all periods.

Despite global markets falling, they faired better compared to the UK due to:

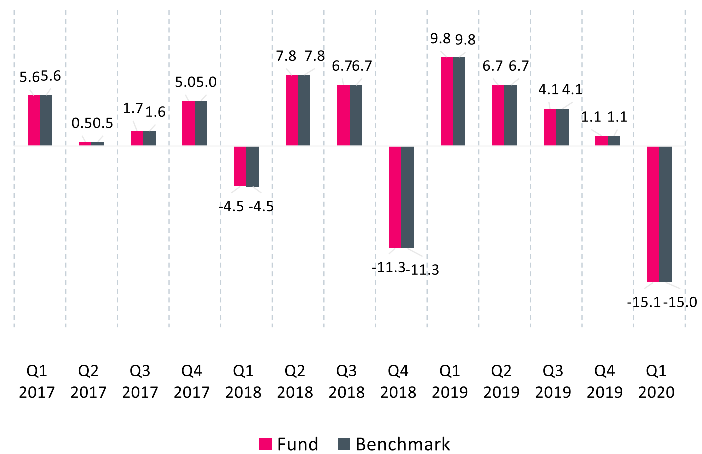
- Lower weighting to oil & gas and industrials
- A weakening of the Pound, serving to soften the impact in domestic currency terms

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

## Fund Performance vs benchmark/target




## Historical Performance/Benchmark






Source: Investment Manager

## LGIM UK Equity

The LGIM UK equity mandate returned -25.1% in Q1 2020. This was in line with its benchmark as we would expect for a passively managed portfolio.

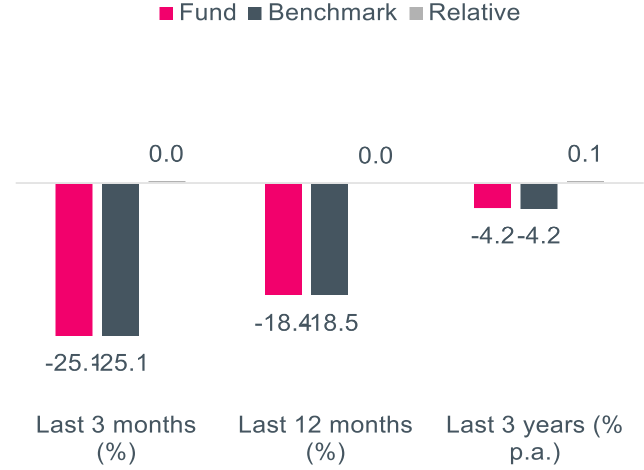
As a result of the scale of the downturn in UK markets in Q1, 12 month and 3 year performance have strayed into negative territory.

The quarter's performance came despite the UK Government unveiling an unprecedented package of monetary and fiscal measures to stabilise the economy.

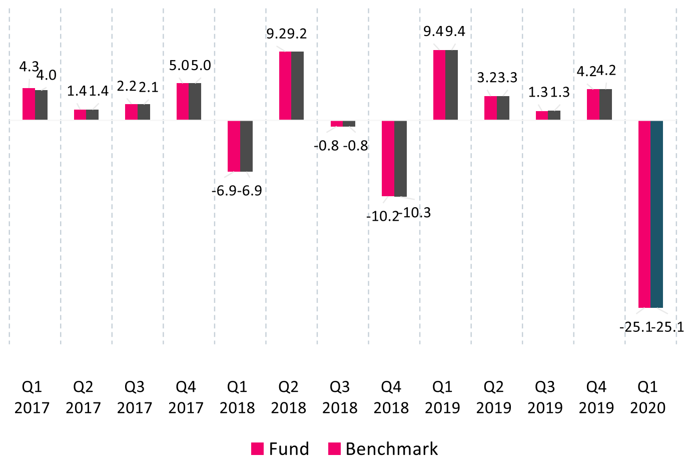
Unsurprisingly the retail and leisure sectors were hard hit with reduced demand and shop closures following the lockdown measures implemented. These sectors were key drivers of the late quarter market fall observed.

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

## Fund Performance vs benchmark/target




## Historical Performance/Benchmark




*Source: Investment Manager*

## JP Morgan Emerging Markets

In Q4 2019 the LCIV emerging markets fund transitioned from Janus Henderson to JP Morgan.

In its first full quarter under JP Morgan, the fund retuned -17.5%. Despite this negative absolute return, JP Morgan outperformed its MSCI Emerging Market benchmark over the period.

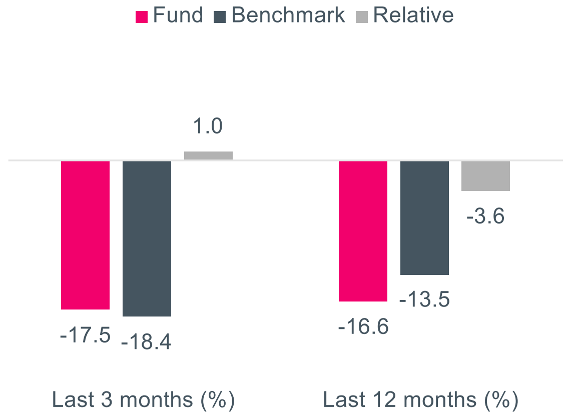
Longer term underperformance is dominated by the pervious LCIV manager for emerging markets, Janus Henderson.

One of the poorest performing sectors within the portfolio in Q1 was financials. A significant proportion of financials stocks held by the fund are in countries highly sensitive to oil prices (e.g. Brazil) and so were impacted by the oil price war between Russia and Saudi Arabia.

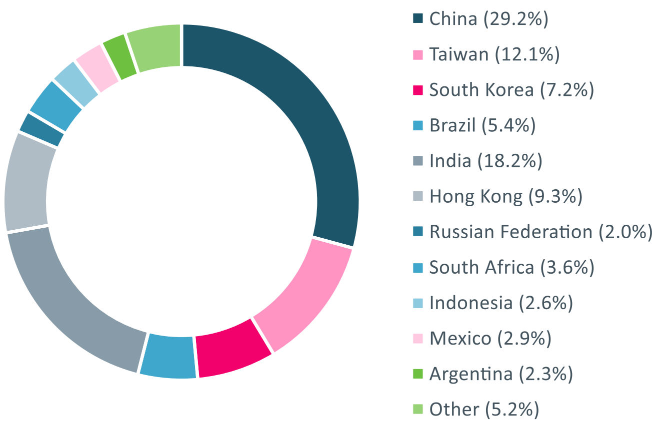
That said, outperformance against benchmark came from its underweight allocation to China, the epicentre of the COVID-19 outbreak, and the fund's stock selection with technology and quality bias.

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

## Fund performance vs benchmark/target




## Fund Asset Allocation






*Source: Investment Manager*

## Capital Dynamics Private Equity

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

Based on information from Northern Trust, the mandate has outperformed over all considered time periods.

However, 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.

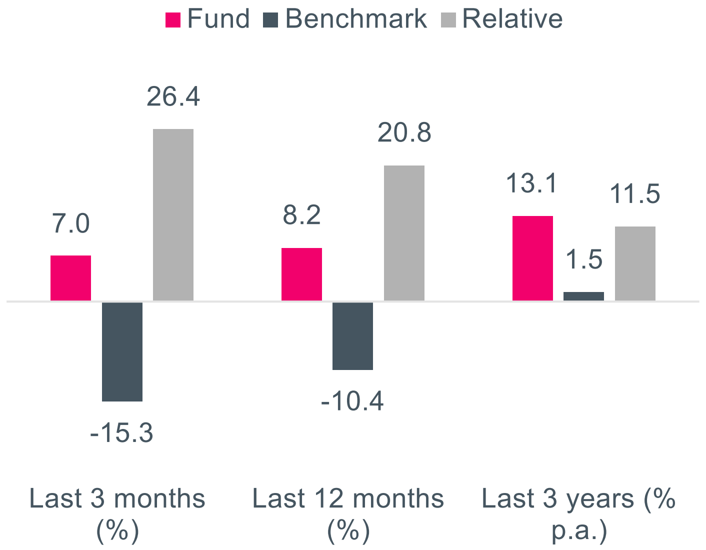
The investment with Capital Dynamics is at a mature stage meaning assessing the IRR (a percentage value) alongside the TVPI carries greater weight. As at 31 December 2019 the IRR was approximately 11.0% with a TVPI of 1.57. This represents a healthy return to date for the Fund.

The following distributions occurred over the quarter:

23 March 2020 - $472,000
24 March 2020 - $320,000
26 March 2020 - $741,950

There was one capital call on 24 March 2020 in the amount of $280,000.

## Fund Performance




## Summary as at 31 December 2019

| | |
|---|---|
| Capital committed | £124.5m |
| Total contributed | c91.0% |
| IRR (approx.) | 11.0% |
| TVPI | 1.57x |

*Source: Investment Manager*

## Baillie Gifford Multi-asset

The Baillie Gifford multi-asset fund has a performance target of UK Base Rate + 3.5% p.a. over the longer term.

In Q1 2020 the mandate had a reversal of performance in Q1 2020 returning -14.0%.

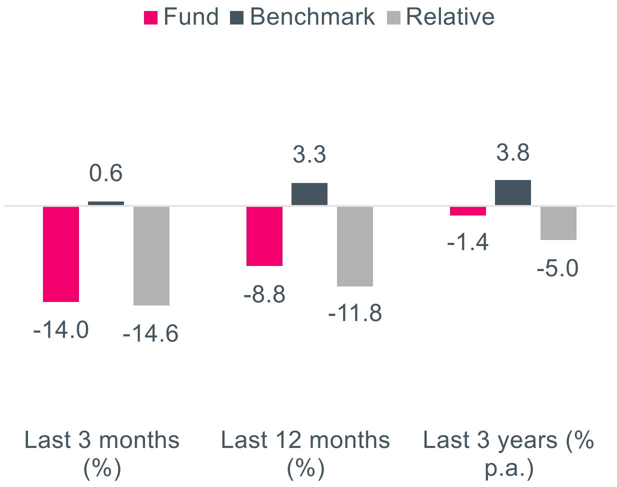
Longer-term performance is now negative on an absolute and relative basis.

The main detractors to performance over the quarter were the allocations to equities, emerging market bonds and property. These asset classes constitute almost 40% of the current asset allocation.

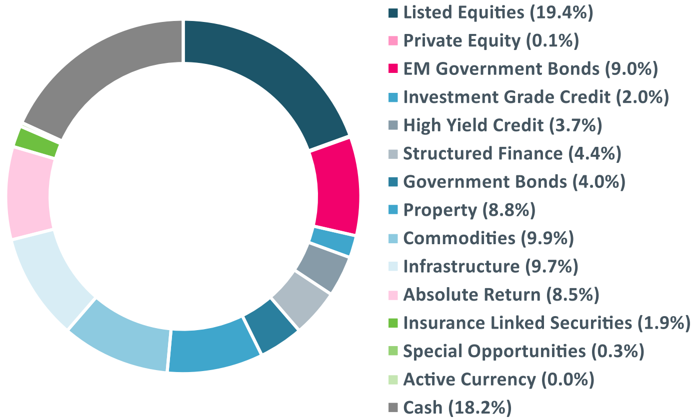
Over the quarter Baillie Gifford de-risked the portfolio in response to the uncertainty caused by the pandemic. Equities and emerging market bonds were sold in favour of holding increased levels of cash. Gold and volatility strategies were also added to as a buffer against expected volatility.

The manager believes that markets are likely to get worse before recovering hence its high allocation in cash which they believe will give them flexibility to capture opportunities are markets evolve in future.

## Fund Performance




## Fund Asset Allocation




*Source: Investment Manager*

## Ruffer Multi-asset

The Ruffer Multi-Asset fund returned -2.3% in absolute terms over the quarter, behind its Base Rate + 3.5% p.a. benchmark.

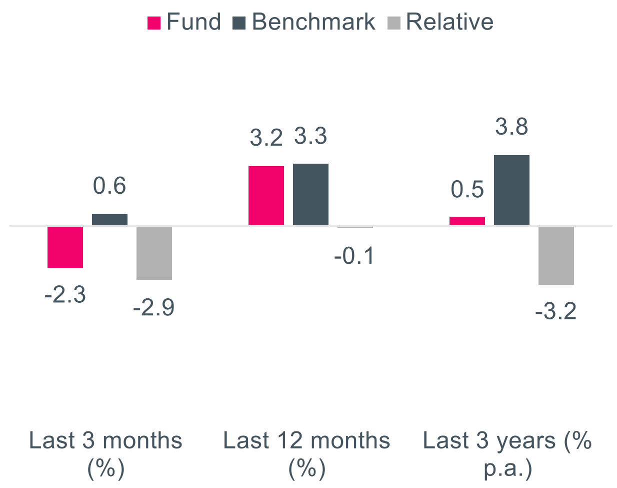
In a tumultuous quarter that negatively impacted most asset classes, Ruffer navigated the multi-asset field better than most.

It is the more defensively positioned of the two multi-asset mandates held by the Fund within the LCIV. Ruffer further increased this position over the quarter adding to government bonds and gold at the expense of equities.

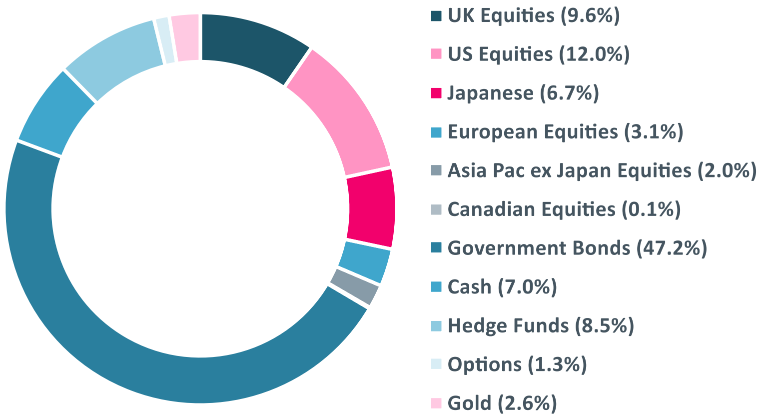
Ruffer's higher weighting to longer duration government bonds (c47%) served it well at the end of Q1, as did the volatility and derivate strategies. They helped to mitigate the negative performance of the portfolio's equities.

The manager continues to hold conviction in its more defensive strategy. Whilst it has trimmed equity protection given the level of volatility, it has maintained its credit market protection strategies to protect against further economic downside.

## Fund Performance




## 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.

The Alinda III Infrastructure fund is in the ramp-up stage, drawing down and deploying capital which is skewing and adding volatility to the combined percentage return.

Details as at 31 March 2020

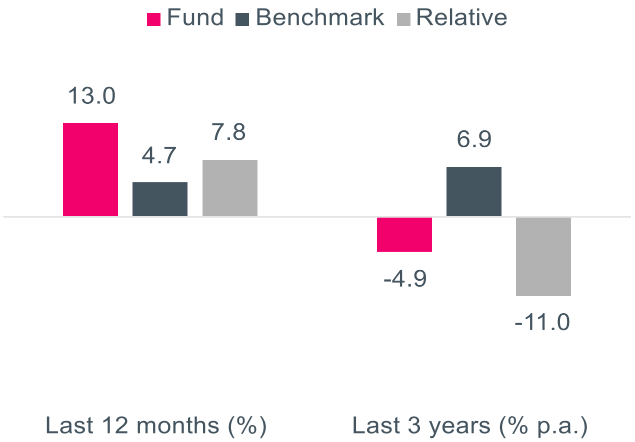
The remaining capital commitments are as follows:

Alinda II: $3,646,739
Alinda III: $12,095,151

The following net distributions were made over the quarter:

Alinda II: $185,431
Alinda III: $529,962

## Fund performance vs benchmark/target*




## Summary as at 31 March 2020

| Alinda Fund II | |
|---|---|
| IRR (Gross) | 5.9% |
| IRR (Net) | 3.2% |
| Cash yield | 7.0% |
| DPI | 1.1x |
| TVPI (Net) | 1.2x |

| Alinda Fund III | |
|---|---|
| IRR (Gross) | 19.9% |
| IRR (Net) | 11.4% |
| Cash yield | 9.2% |
| DPI | 0.3x |
| TVPI (Net) | 1.3x |

*In Q4 2019 the benchmark for this fund was updated to CPI+ 2% p.a. from absolute 8% p.a. As such the 12 month and 3 year benchmark figures represent a blended value.

*Source: Investment Manager*

## 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.

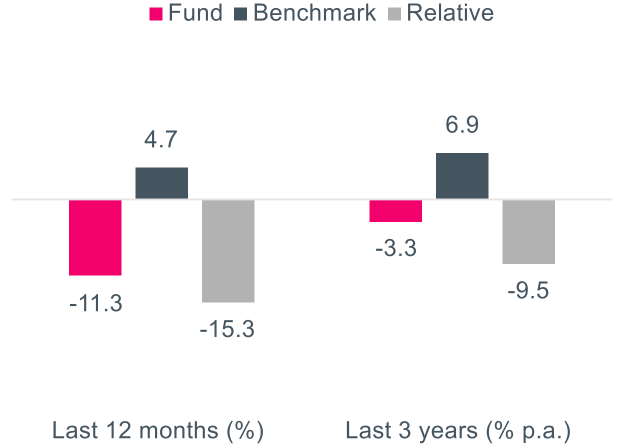
Reporting on underlying commitments is as at 31 December 2019 due to the lag in reporting from the manager, which is typical for funds of this nature.

As can be seen by both the IRR and TVPI, performance has been lower than expected to date.

In terms of activity over Q1 2020:

Distributions = $0m
Capital calls = $0m

## Fund performance vs benchmark/target*




## Summary as at 31 December 2019 (figures in $m where applicable)

| | |
|---|---|
| Capital committed | $15.0 |
| Total contributed | $14.7 |
| Distributions | $0.8 |
| Value created | ($0.8) |
| Net asset value | $13.1 |

| | |
|---|---|
| Net IRR since inception | (0.9%) |
| Total value-to-paid-in-ratio (TVPI) | 0.95x |

*In Q4 2019 the benchmark for this mandate was updated to CPI+ 2% p.a. from absolute 8% p.a. As such the 12 month and 3 year benchmark figures represent a blended value.

*Source: Investment Manager*

## CQS Multi Credit

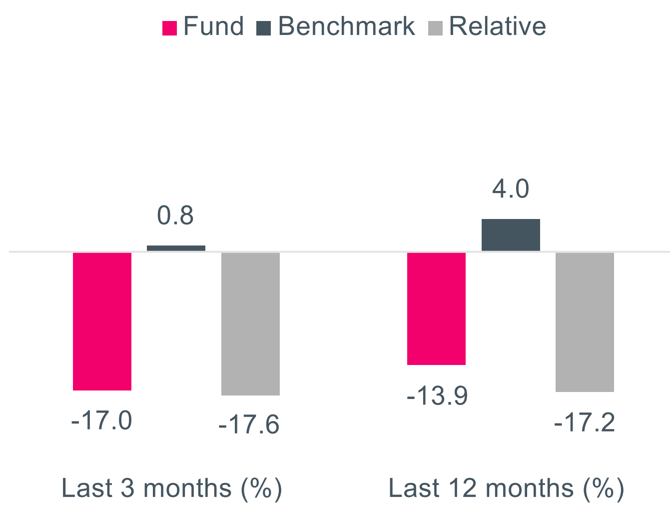
Over the first quarter of 2020 CQS's multi-asset credit strategy returned -17.0%. As a result, against its longer-term target of LIBOR + 4-5% p.a. it is now behind.

Credit markets suffered late in the quarter as uncertainty hit markets. The high-yield market faired worse than the investment grade sector as investors showed a preference for security.  Credit spreads widened as concerns grew over potentially dwindling corporate profits and how companies were going to manage their balance sheets and navigate through the crisis.

Both European and US high-yield and loan indices dropped by double figure values.  In fact the US loan market experienced its second worst quarter on record.

Over the period, CQS adjusted the portfolio in response to the changing landscape. Leisure and travel related exposure was sold down in favour of more defensive industries like utilities and consumer non-discretionary goods. CQS also took the opportunity to invest in higher quality companies to offer better protection should the crisis be more prolonged and hard felt.

## Fund performance vs benchmark/target




Source: Investment Manager

## BlackRock UK gilts

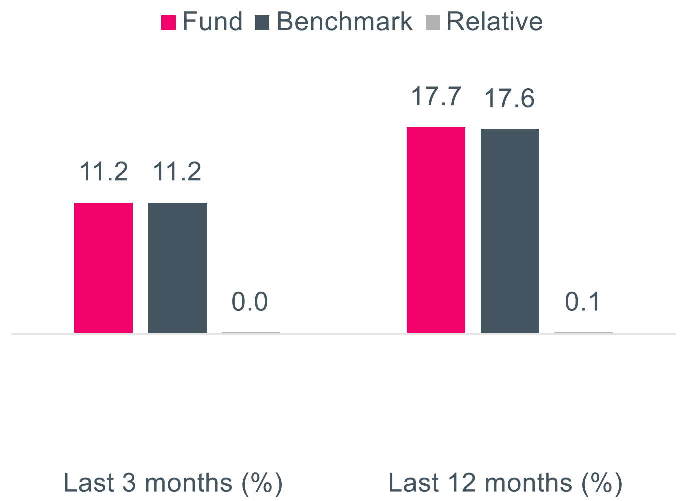
BlackRock were appointed in March 2019 to oversee the Fund's bond allocation.

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

Over the first quarter of 2020 the fund returned 11.2%.

In a period of volatility and uncertainty, safe haven assets rallied. Government bond yields fell to historic lows, in part buoyed by emergency government actions. This resulted in increased valuations and positive returns.

## Fund performance vs benchmark/target




*Source: Investment Manager*

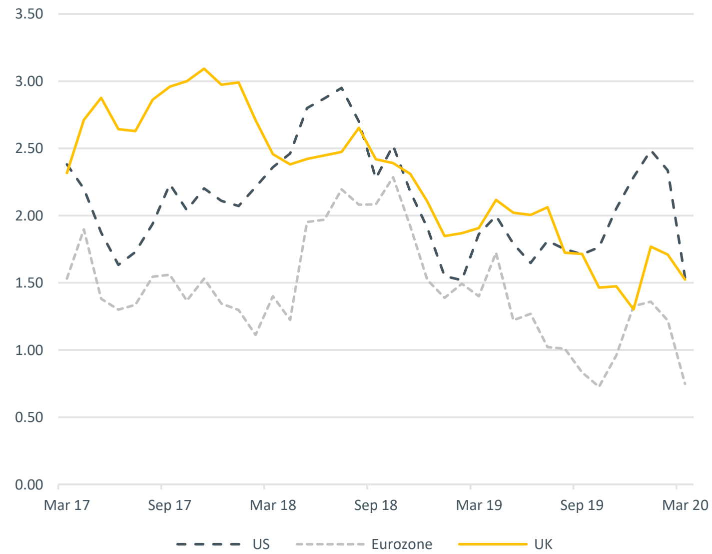
Q4 GDP numbers were broadly in-line with recent trends - a modest slowdown year-on-year. The global spread of Coronavirus, and the impact on supply and demand from necessary containment measures, will inevitably impact the rate of global economic growth in 2020 and possibly beyond.

Falling domestic demand globally and steep oil price declines are disinflationary. The slump in global demand for oil has been compounded by a price war between OPEC (led by Saudi Arabia) and Russia, Brent crude falling to its lowest level since 2002. Inflation, which was already below target in the major advanced economies, is forecast to slow in 2020, with some Eurozone countries and Japan expected to enter deflation.

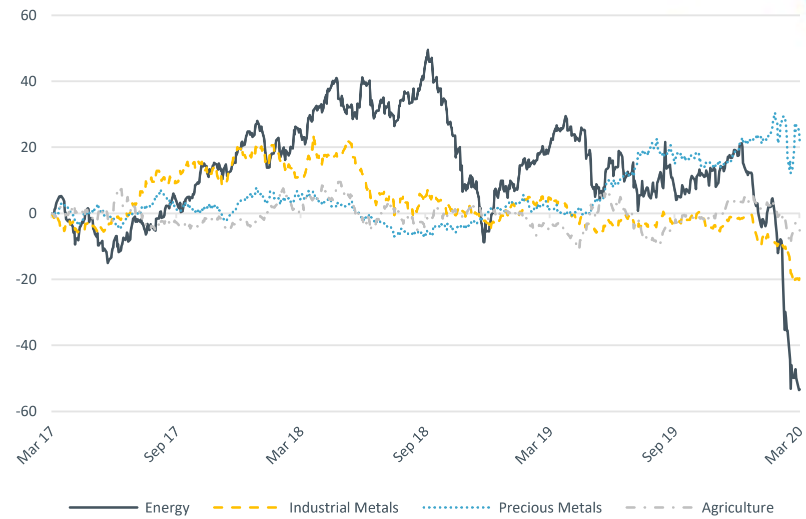
The US Federal Reserve (Fed) and the Bank of England (BoE) have cut rates to record lows and the Bank of Japan and the European Central Bank have joined the Fed and BoE in restarting and expanding their quantitative easing programs. The Fed's now unlimited purchase program will, for the first time, include corporate debt.

Currency markets were typical of a period of increased risk. The haven appeal of the dollar and yen was apparent and, in line with their less defensive reputation, sterling and emerging market currencies fell.

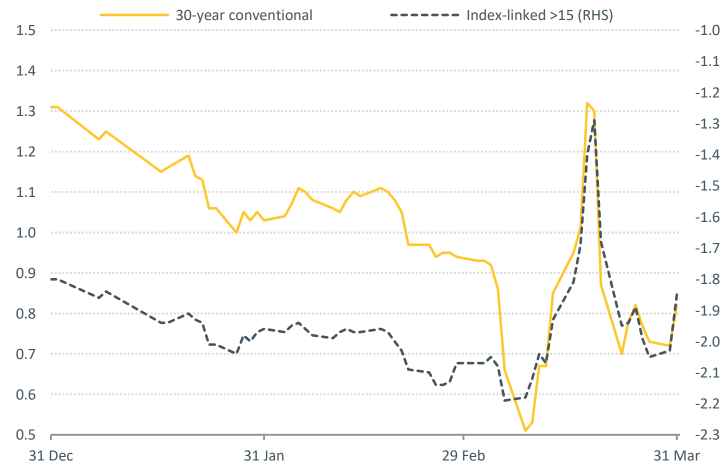
## Annual CPI Inflation (% p.a.)



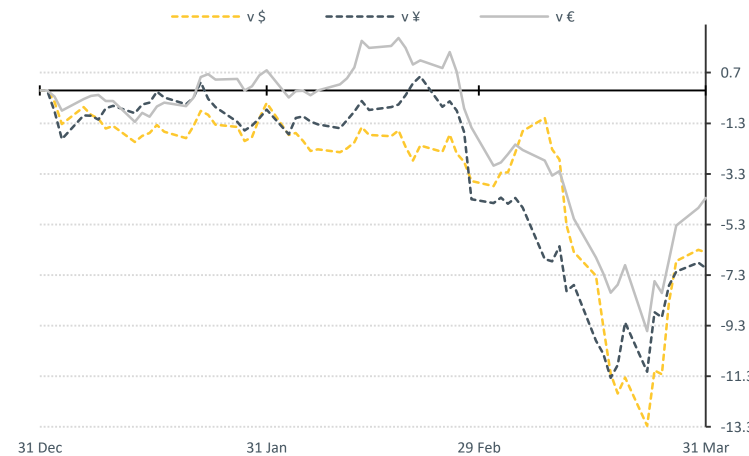

## Commodity Prices (% change)




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




## Sterling trend chart (% change)




Source: Reuters

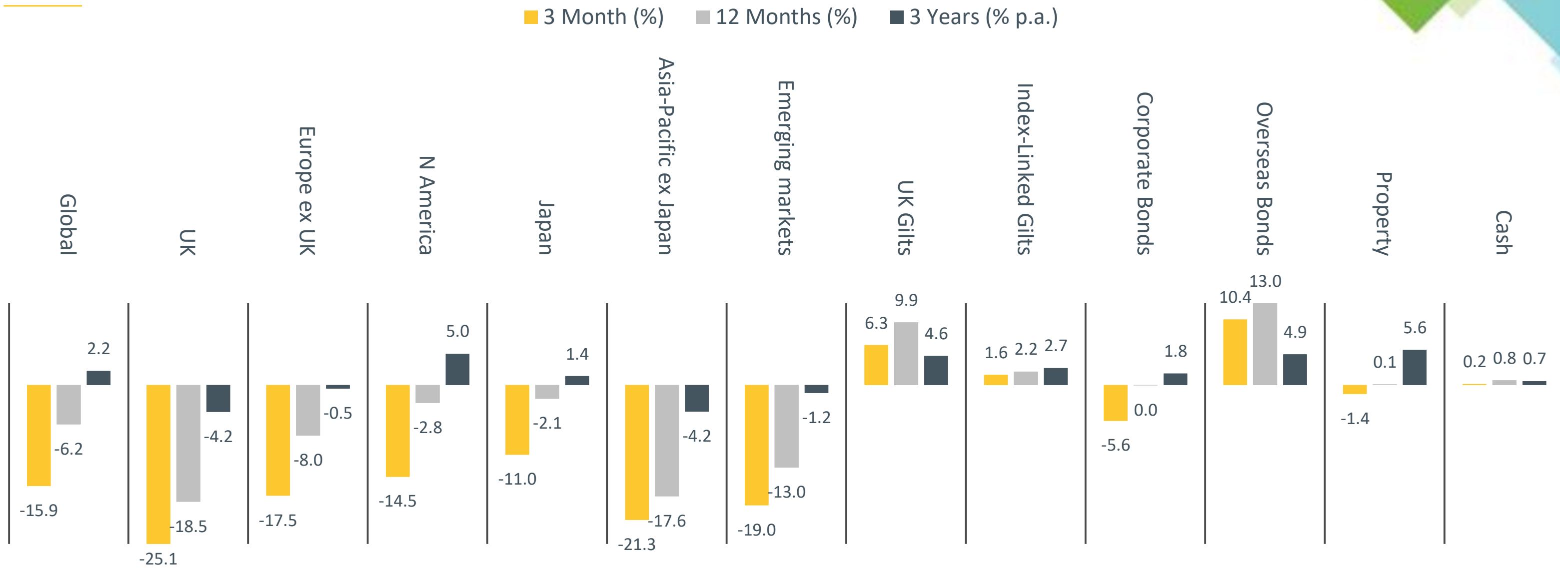
Developed market sovereign bond yields have been pushed near record lows, though have not been immune to volatility as investors liquidated bonds in a dash for cash in March. Sterling investment grade spreads rose 1.34% p.a., more than offsetting any benefit from falling underlying government bond yields.

Unsurprisingly, speculative grade credit spreads underperformed their investment grade counterparts with high yield energy bonds particularly hard hit. Leveraged loans underperformed within speculative-grade markets as a collapse in interest rate expectations weighed on floating-rate loans.

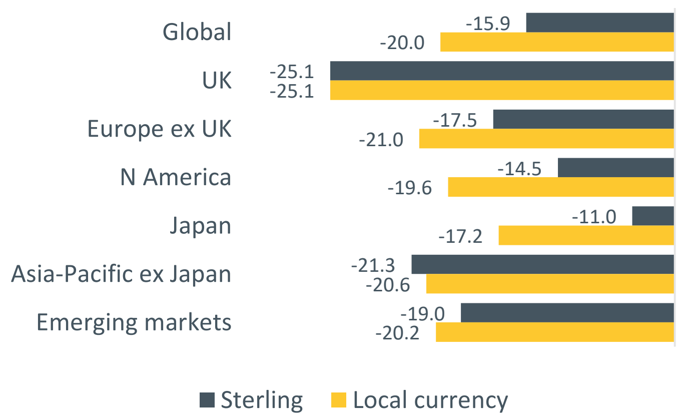
Global equity markets fell 20% in local currency terms and 15.9% in sterling terms, as weakening sterling benefited unhedged investors. The UK equity market was the worst performer with the FTSE 100 posting its biggest fall since 1987 as its sectoral composition and exposure to oil & gas hurt performance. Global equities did recover some losses towards the end of the quarter, as market sentiment improved on the back of fiscal and monetary support measures. Volatility levels, as measured by the VIX Index, hit levels not seen since the global financial crisis.

A number of UK property funds have suspended dealing as property valuers have been unable to accurately value the underlying assets with any certainty, inserting material uncertainty clauses into their valuations.

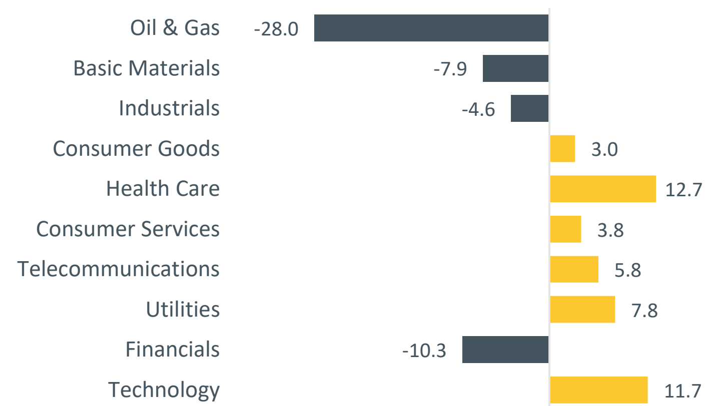
## Historic returns for world markets [1]




## Regional equity returns [2]




## Global equity sector returns (%) [3]




[1] All returns are in Sterling terms. Indices shown (from left to right) are as follows: 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 Index; UK Interbank 7 Day. [2] FTSE All World Indices [3] Relative to FTSE All World Indices.

## 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.



## Geometric v Arithmetic Performance

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

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

Some industry practitioners use the simpler arithmetic method as follows:

$$Fund\ Performance\ - Benchmark\ Performance$$

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.