Quarterly Funding & Investment Report

End December 2022

Prepared for: North Yorkshire Pension Fund
Prepared by: Aon
Date: 3 March 2023

Signatory of: UK STEWARDSHIP CODE | 2021

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1. At a glance…

A high level summary of your investments and funding

At a glance…

Funding*

Since the initial results of the valuation at 31 March 2022 the Fund's ongoing funding level has deteriorated and the surplus has decreased by £370M, falling 9% to 106%.

This has been primarily driven by a reduction in asset values although this has been partially offset by an increase in the net discount rate.

Asset Allocation and Implementation

A number of short/medium term changes to the asset allocation have been agreed by the Committee in light of the agreed long-term investment strategy.

Over the quarter, £120m was redeemed from BCPP Global Alpha with £60m of proceeds transferred to cash and £60m invested in the BCPP Inflation Linked Bonds fund. £20m was successfully redeemed from the LGIM Managed Property fund, with a follow-up redemption of £16m deferred by LGIM. In addition, another £5m was redeemed from BCPP Listed Alternatives to meet capital calls

In light of market conditions, it was agreed to defer the investment strategy review to the Q1 2023 PFC meeting

Performance

The Fund outperformed the composite benchmark over the quarter but underperformed over the 1 year and 3 year periods.

Market Background and Investment Outlook

Risky assets finished 2022 on a positive note with optimism over falling inflation, but we see conditions likely to stay testing in 2023. Avoiding a US recession is critical for any market-bullish narrative to be sustained. This still looks to be tough to achieve, especially because the effects of 2022's large monetary tightening have yet to be fully felt.

Equities will still be battling stiff headwinds from a weaker earnings outlook and high cash and bond yields. We prefer to look elsewhere for return generation. A recent rush into credit has lowered yields a fair bit, even though they remain at attractive levels relative to the past decade. Though the autumn's gilt market storm has long passed, gilt market volatility will likely stay. We expect yields to move in a wide range this year reflecting high levels of local and global economic uncertainty.

Key actions

1. Committee members to consider results from investment strategy review with a view to finalising decisions at March PFC meeting
2. Committee members to agree commitment levels to private market assets
3. Committee members to agree if an investment should be made in the BCPP Global Property fund

*The funding update makes allowance for the initial results of the 2022 valuation of the Fund. This includes a 10% loading for short term inflationary impacts.

Key Stats – Q4 2022

Assets

£4,001m

Assets reduced by £626m since 2022 valuation

£4,627m at 2022 valuation

Funding level

106%

Funding level decreased by 9% since 2022 valuation

115% at 2022 valuation

Return on Assets Since 2022 Valuation

-19.1% pa

Current Assets Expected Return (10 year p.a.)

+7.2%

1.6% increase since 2019 Valuation

5.6 % at 2019 valuation

Long-term Strategy Expected Return (10 year p.a.)

+7.5%

1.6% increase since 2019 Valuation

5.6% at 2019 valuation

Discount rate

4.8%

Discount rate has increased by 0.6% since 2022 Valuation

4.2% at 2022 valuation

Current Assets Value at Risk (1 Year 1 in 20)

£836m

Long-term Strategy Assets Value at Risk (1 Year 1 in 20)

£778m

Estimated Total Employer cost

16.6%

Estimated Total Employer cost decreased by 1.3% since 2022 valuation

17.9% at 2022 valuation

Note: The funding update makes allowance for the initial results of the 2022 valuation of the Fund. This includes a 10% loading for short term inflationary impacts.

2. Funding

A review of your funding position and contributions

Funding position

Funding level

106%

at end 31 December 2022

Down from 115% at 31 March 2022

Surplus

£240.3M

at end 31 December 2022

Down from £610m at 31 March 2022

Comments

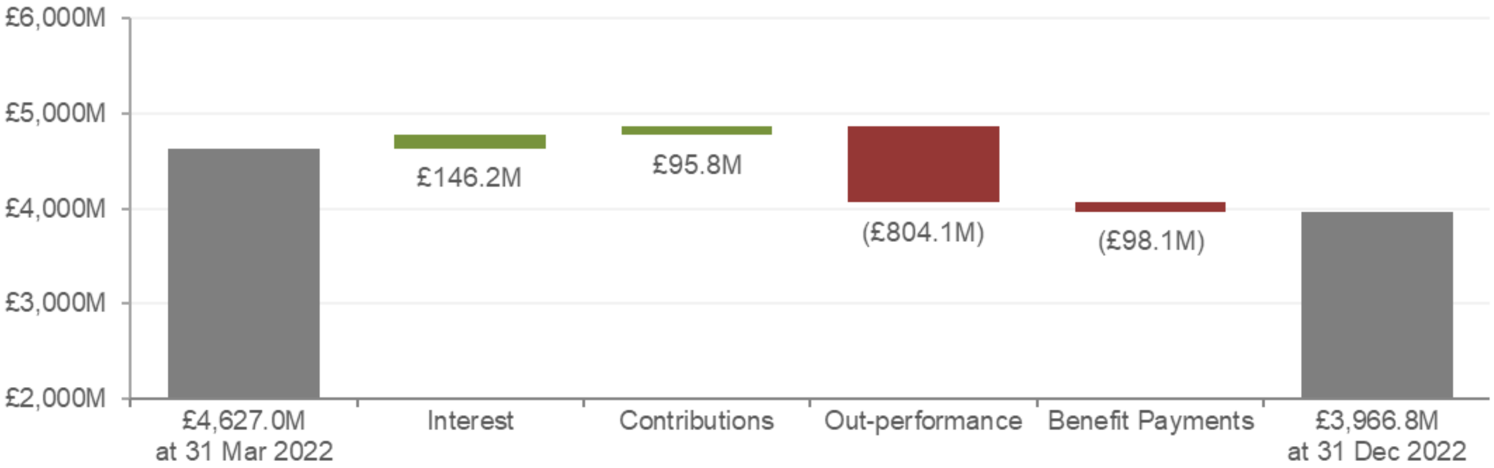
Since the initial results of the valuation at 31 March 2022 the Fund's ongoing funding level has deteriorated and the surplus has decreased by £370M.

This has been primarily driven by a reduction in asset values although this has been partially offset by an increase in the net discount rate.

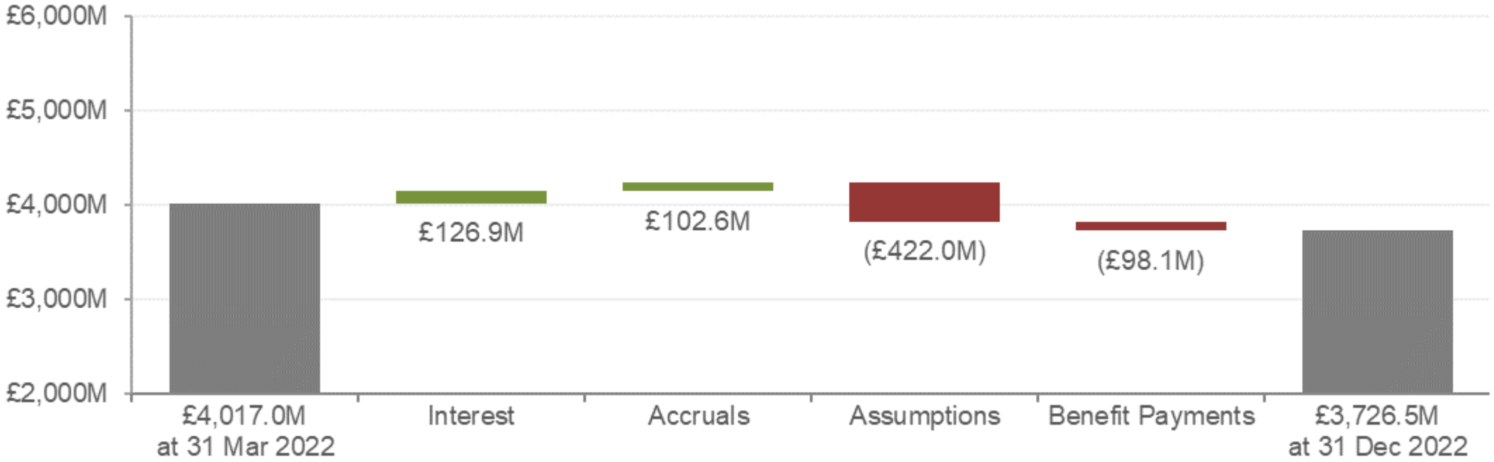
Change to funding level since 31 March 2022

Analysis – ongoing funding target

Reason for change since 31 March 2022 – Asset Attribution



Reason for change since 31 March 2022 – Liability Attribution



Comments

Since the 2022 valuation the surplus has decreased by £370M.

Aggregate Employer contributions – ongoing funding target

Total employer contribution rate

16.6%

at 31 December 2022

Down from 17.9% at 31 March 2022

Employer cost of accrual

16.6%

at 31 December 2022

Down from 20.2% at 31 March 2022

Comments

The cost of accrual has decreased since 31 March 2022 due to the increase in net discount rate. However, the surplus has increased which has offset this to an extent. Overall there is a reduction in the total employer contribution rate.

Notes

The total employer contribution rate quoted above is based on the average total employer contribution rates across the Fund. Individual employer contributions can be very different to the average figure across the Fund shown above depending on their own characteristics, membership profile and funding target. The individual employer contributions are in the process of being reviewed as part of the triennial valuation at 31 March 2022.

3. Asset allocation

A review of your strategic asset allocation

Asset allocation – Q4 2022

Asset Group	Manager	Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	Possible action
		31 December 2022					
Equities		**2,015.6**	**50.4%**	**50.0%**	**+0.4%**		✓
	BCPP UK equity	169.1	4.2%	4.0%	+0.2%	TBC	
	BCPP Global Equity	1,145.1	28.6%	28.0%	+0.6%	+/- 5%	
	Baillie Gifford LTGG	701.5	17.5%	18.0%	-0.5%	+/- 3%	
Absolute Return		**9.4**	**0.2%**	**0.0%**	**+0.2%**		⏱
	Leadenhall Remote Risk	3.2	0.1%				
	Leadenhall Diversified	3.5	0.1%				
	Leadenhall Nat Cat	2.8	0.1%				
Property		**282.2**	**7.1%**	**7.5%**	**-0.4%**	**TBC**	✓
	Hermes	34.0	0.8%				
	L&G	60.9	1.5%				
	Threadneedle	187.3	4.7%				

Source: Northern Trust, Aon. Note: Numbers may not sum due to rounding.

Asset allocation – Q4 2022 (cont'd)

Asset Group	Manager	Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	Possible action
		31 December 2022					
Infrastructure		**500.4**	**12.5%**	**10.0%**	**+2.5%**		
	BCPP Infrastructure	208.3	5.2%				
	BCPP Listed Alts	290.3	7.3%				
	BCPP Climate Opportunities	1.9	0.0%				
Private Credit		**151.9**	**3.8%**	**5.0%**	**-1.2%**		
	BCPP Private Credit	97.4	2.4%				
	Arcmont	30.5	0.8%				
	Permira	24.1	0.6%				
Non-Investment Grade Credit		**214.5**	**5.4%**	**5.0%**	**+0.4%**	**TBC**	
	BCPP Multi Asset Credit	214.5	5.4%				
Investment Grade Credit		**292.8**	**7.3%**	**7.5%**	**-0.2%**	**TBC**	
	BCPP Investment Grade Credit	292.8	7.3%				

Source: Northern Trust, Aon. Note: Numbers may not sum due to rounding.

Asset allocation – Q4 2022 (cont'd)

Asset Group	Manager	Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	Possible action
		31 December 2022					
Gilts		**474.2**	**11.9%**	**15.0%**	**-3.1%**	**TBC**	✓
	BCPP Index Linked Bonds	474.2	11.9%				
Cash		**60.0**	**1.5%**	**0.0%**	**+1.5%**	**TBC**	✓
	Internal Cash	60.0	1.5%				
Total		**4,001.1**	**100.0%**	**100.0%**			

Source: Northern Trust, Aon. Note: Numbers may not sum due to rounding.

Investment strategy update

Implementation actions over Q4 2022

Officers and selected Committee members:

- Considered implementing currency hedging in light of market conditions. A decision was taken not to proceed.
- Agreed to sell c.3% overweight to equities (BCPP Global Alpha) with 50% of proceeds transferred to cash and 50% the BCPP inflation linked bonds fund
  - £120m was redeemed from BCPP Global Alpha with £60m of proceeds transferred to cash and £60m invested in the BCPP Inflation Linked Bonds fund
  - Trading took place in early October 2022 and was completed in two tranches
- Agreed to sell c.£20m from property assets if possible
  - £20m was successfully redeemed from the LGIM Managed Property fund, with a follow-up redemption of £16m deferred by LGIM
- In light of market conditions, it was agreed to defer the investment strategy review to the Q1 2023 PFC meeting
- In addition, another £5m was redeemed from BCPP Listed Alternatives to meet capital calls

Transitions and cashflows

The following rebalancing activities took place over the quarter:

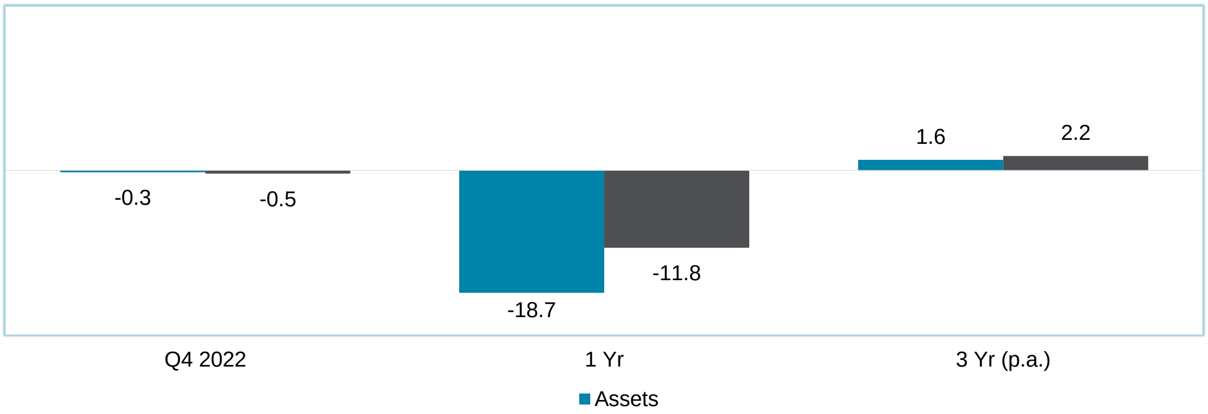
- £120m redemption from Border to Coast Global Alpha
  - £60m invested into Border to Coast Inflation Linked Bond
  - £60m retained as cash to meet capital calls
- Border to Coast made 21 capital calls and 13 distributions for Infrastructure over the quarter totalling £41m, 23 capital calls and 13 distributions for Private Credit, totalling £18m, 2 capital calls for Climate Opportunities totalling £2m.
- Arcmont made one capital call and one distribution net £0m, Permira made one distribution of £1m.
- £5m was disinvested from BCPP Listed Alternative to meet capital calls
- £20m was disinvested from LGIM Property Fund, with a further £16m redemption deferred by LGIM

4. Fund performance

A review of your investment performance

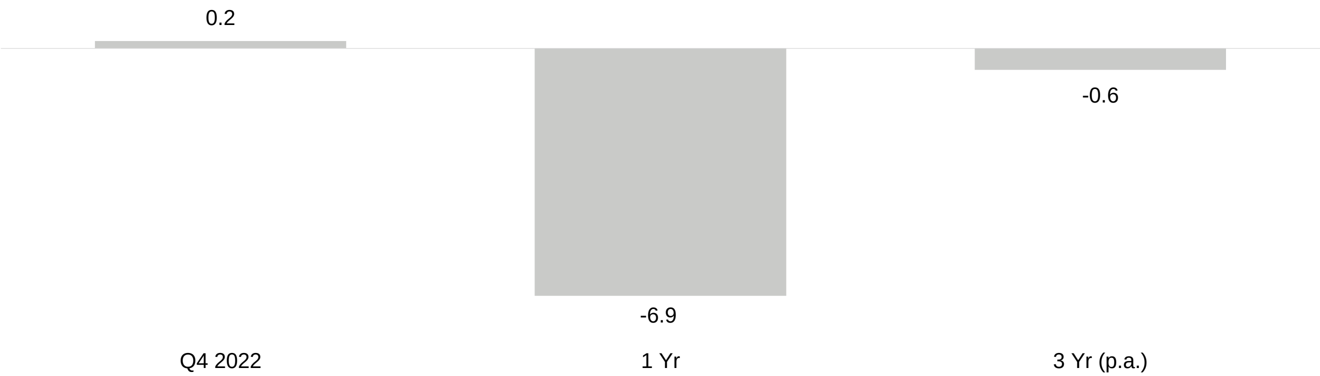
Total Fund performance – Snapshot

Fund performance & benchmark



Relative performance

Relative Return (%)



Source: Northern Trust, Aon

Quarterly (relative)

0.2%

The Fund outperformed the benchmark returning -0.3% vs -0.5% over the quarter.

3 year (relative)

-0.6%

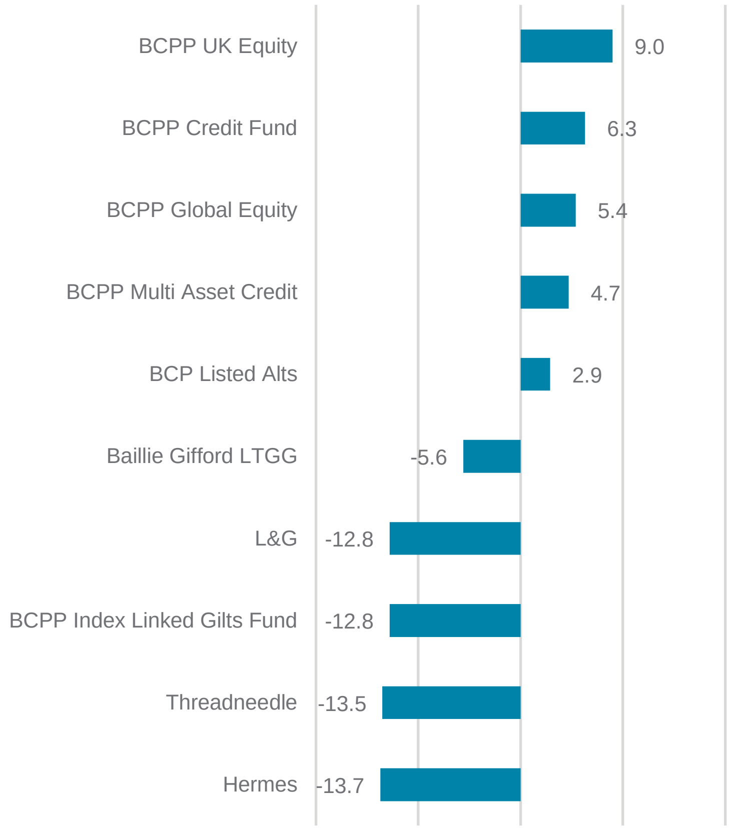
Over 3 years the Fund has underperformed the benchmark returning 1.6% vs 2.2%.

Comments

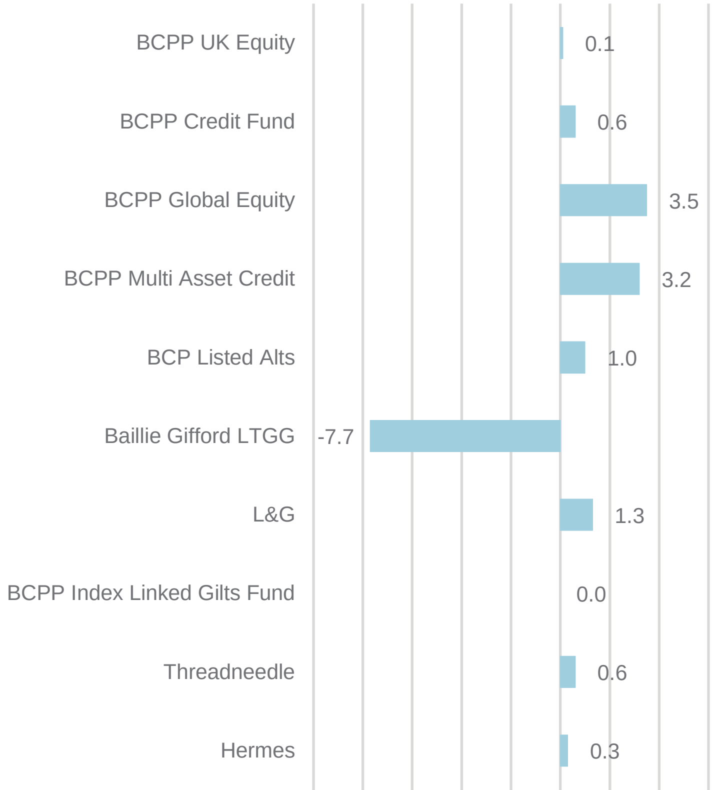
Total Fund performance is behind the composite benchmark over 1 year period and 3 year period but ahead over the quarter to 31 December 2022.

Manager performance – Quarter Snapshot

Absolute performance



Relative performance



Source: Northern Trust, Managers, Aon.
Note: Infrastructure and Private Credit returns not shown during initial investment drawdown phase. Performance for Leadenhall is not shown as mandates only hold residual assets. Hermes, L&G, Threadneedle; MSCI data was used for fund performance and benchmarking purposes, total fund performance calculated using Northern Trust data.

Manager performance – Longer term

	1 Year (%)			3 Years (% p.a.)			Since inception			
	Perf	B'mark	Rel	Perf	B'mark	Rel	Perf	B'mark	Rel	Inception date
Equity										
UK Equity										
BCPP UK Equity	-10.4	0.3	-10.7	-0.3	2.3	-2.6	1.7	3.5	-1.8	Jun-19
Global Equity										
BCPP Global Equity	-6.8	-8.1	+1.3	6.8	7.7	-0.9	7.9	8.5	-0.6	Oct-19
Baillie Gifford LTGG	-39.4	-7.3	-32.1	7.5	7.9	-0.4	13.6	9.2	+4.4	Sep-06
Property										
Hermes	-8.8	-8.7	-0.1	1.9	2.2	-0.3	-	-	-	Mar-12
L&G	-8.1	-9.5	1.4	2.8	2.2	+0.6	-	-	-	Dec-12
Threadneedle	-10.7	-9.5	-1.2	-2.1	2.2	-0.1	-	-	-	Jun-12
Infrastructure										
BCPP Listed Alts	-	-	-	-	-	-	-7.2	-4.2	-3.0	Feb-22
Investment grade credit										
BCPP Investment Grade Credit	-17.4	-17.7	+0.3	-	-	-	-6.8	-7.9	+1.1	Aug-20
Non-investment grade credit										
BCPP Multi-Asset Credit	-	-	-	-	-	-	-6.0	3.9	-9.9	Nov-21
Gilts										
BCPP Index Linked Bonds	-46.7	-46.9	+0.2	-	-	-	-21.4	-22.5	+1.1	Oct-20
Total	**-18.7**	**-11.8**	**-6.9**	**1.6**	**2.2**	**-0.6**	**6.8**	**7.2**	**-0.4**	**Jan-02**

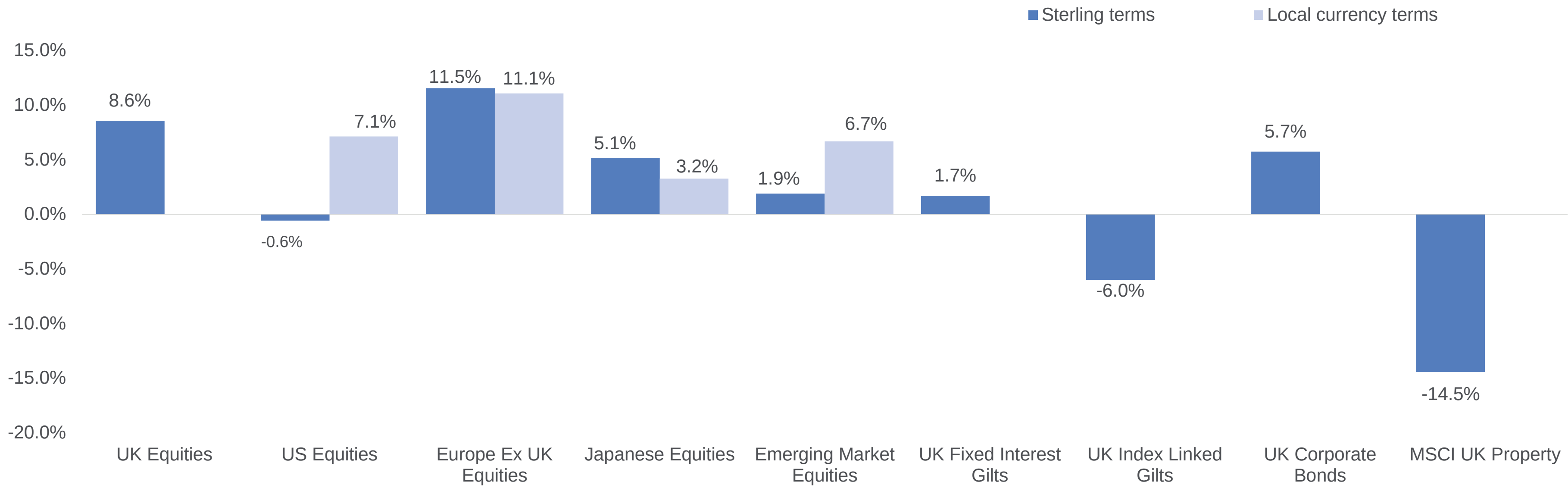
Source: Northern Trust, Managers, Aon. Numbers may not sum due to rounding.
Note: Hermes, L&G, Threadneedle; MSCI data was used fund performance and benchmarking purposes. BCPP Infrastructure returns and BCPP Private Credit returns not shown during initial investment drawdown phase. Permira and Arcmont longer term returns not available. Performance for Leadenhall is not shown as mandates only hold residual assets.

5. Market background and investment outlook

Aon’s views on the market outlook and snapshot of investment markets and key economic data

Market – Background Q4 2022

Index returns from 30/09/2022 to 30/12/2022



Sources: FactSet, MSCI (Equities, Property), FTSE (Gilts), iBoxx (Credit).

Equities

The MSCI AC World index posted a 7.5% return in local currency terms as inflationary pressures and corresponding tighter monetary policy continued to drive market sentiment. However, the material appreciation of sterling against the US dollar pushed down the returns in sterling terms to 2.0%.

UK equities rose by 8.6% in sterling terms in the fourth quarter, aided by the country's emergence from the gilt market crisis. UK equities posted relatively strong returns after bond yields fell and much of the government's debt-funded expansionary fiscal policies were reversed.

Bonds

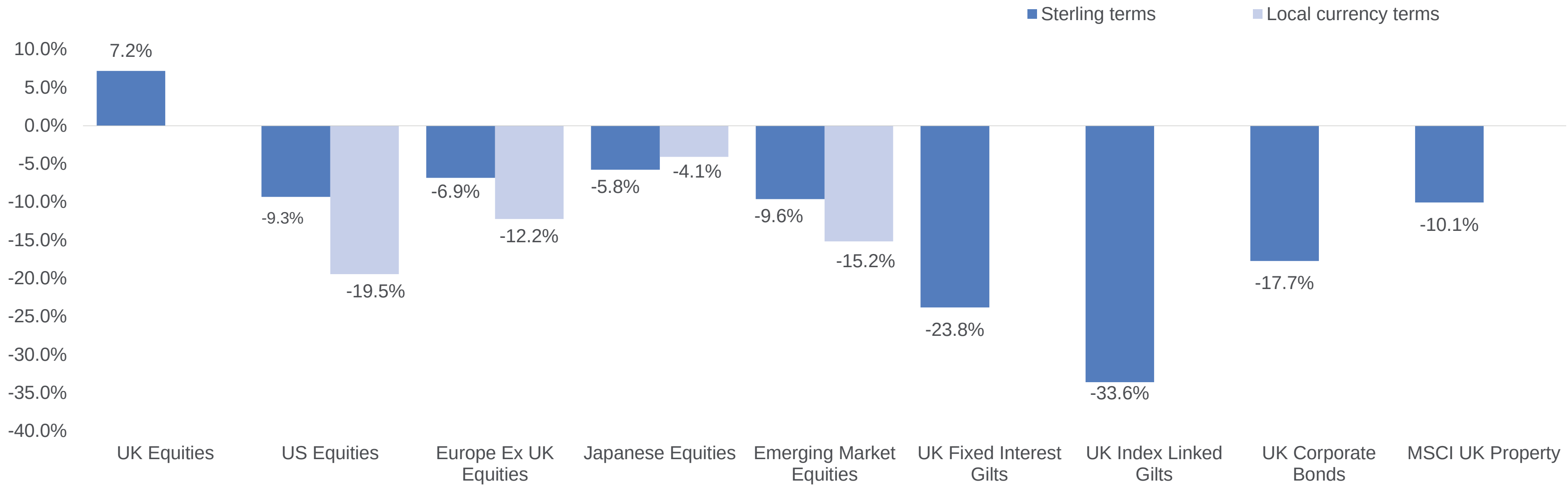
Credit spreads narrowed over the quarter. UK investment grade credit spreads fell by 0.33% to 1.68%, based on IBoxx Sterling Non-Gilts data. Lower-quality bond credit spreads contracted more than their higher-quality counterparts, with BBB-rated non-gilt spreads falling by 0.56% to 2.38%. The narrowing of spreads and general fall in UK government bond yields led the Sterling Non-Gilts Index to post a return of 5.7%.

Gilts

The UK gilt curve fell across shorter maturities but rose modestly at longer maturities over the fourth quarter. Yields fell back across the curve at the start of the quarter after a government U-turn on fiscal policy and Liz Truss resigned as prime minister.

Market – Background 12 month

Index returns from 31/12/2021 to 30/12/2022



Sources: FactSet, MSCI (Equities, Property), FTSE (Gilts), iBoxx (Credit).

Equities

Global equities generated negative returns over the last twelve months. Equities suffered a sharp sell-off at the beginning of 2022 as geopolitical risk took centre stage with Russia invading Ukraine. Inflation fears were unsettled throughout 2022, leading to significant rate rises across the globe.

Bonds

Credit markets declined over the past twelve months. UK investment-grade credit spreads (the difference between corporate and government bond yields), based on the iBoxx Sterling Non-Gilt Index, widened by 0.60%s to 1.68%.

Gilts

The UK gilt curve rose across maturities in 2022. as exacerbated by the fInflationary concerns drove yields higher in the first half of 2022. In Q3 2022, the BoE temporarily announced an emergency £65bn bond-buying programme to stabilise the government debt market after an expansionary fiscal package was announced. The package increased investor concern over the sustainability of public finances, resulting in a considerable spike in yields. The sharpness of the sell-off worced unwinding of LDI positions, as UK pension schemes worked to provide collateral to LDI managers following sharp yield increases. However, in the fourth quarter, yields fell back across the curve following a government U-turn on fiscal policy and Liz Truss' resignation as prime minister.

Quarterly Investment Outlook - January 2023

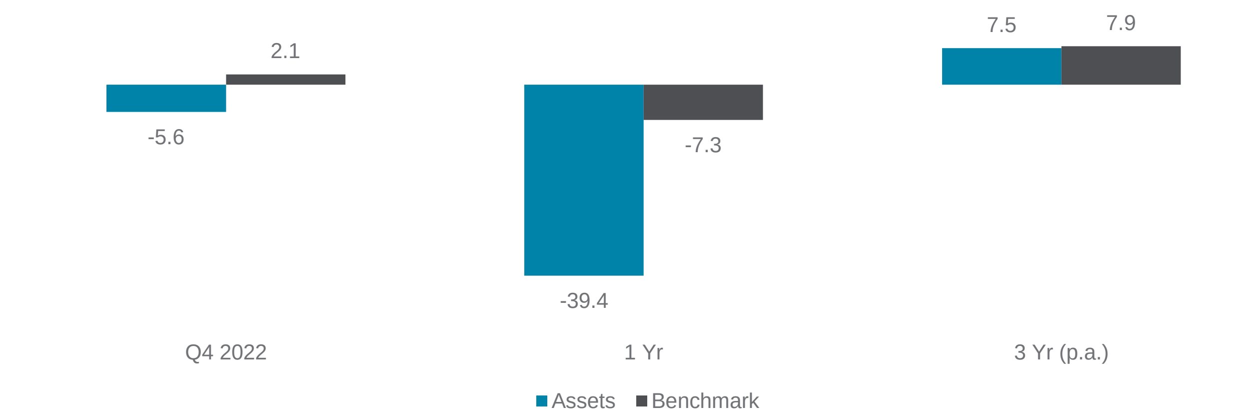
- Risky assets finished 2022 on a positive note with optimism over falling inflation, but we see conditions likely to stay testing in 2023.
- Avoiding a US recession is critical for any market-bullish narrative to be sustained. This still looks to be tough to achieve, especially because the effects of 2022's large monetary tightening have yet to be fully felt.
- The proverbial choice between a rock and a hard place aptly captures the Bank of England's attempts to balance inflation and economic activity. Markets see UK rates still needing to climb, even as it invites a deeper economic downturn.
- Though the autumn's gilt market storm has long passed, gilt market volatility will likely stay. We expect yields to move in a wide range this year reflecting high levels of local and global economic uncertainty.
- A recent rush into credit has lowered yields a fair bit, even though they remain at attractive levels relative to the past decade. Buyers should consider phasing in, to take advantage of likely yield and credit spread fluctuations.
- The US dollar looks to be turning after a decade of strength. This has several impacts, a key one being its support to long-suffering emerging market assets.
- Equities will still be battling stiff headwinds from a weaker earnings outlook and high cash and bond yields. We prefer to look elsewhere for return generation.

6. Manager review

Aon ratings and understanding manager performance

Baillie Gifford - LTGG

Fund performance & benchmark



Performance comments

During the quarter, the strategy underperformed the Index in Q4 2022, extending a poor calendar year relative return.

Though undoubtedly, a disappointing calendar year number, given the intensity of the strategy's investment style and its structure (concentration), performance remains within reasonable expectations, particularly set against the levels of outperformance achieved in 2020. Signs of peaking/lower inflation and interest rates are likely needed to provide better market conditions for the strategy.

For the quarter, Tesla, Amazon and Atlassian Corp Plc were the chief detractors. Over 2022, however, Tesla and Atlassian were among the top detractors.

The most high-profile detractor was Tesla; its issues have been well documented, including concerns over discretionary spending in the EV market with higher consumer finance costs, and concern over potential distractions to CEO Elon Musk. Since January 2020, the team have reduced Tesla a cumulative 16% of the portfolio; but remain comfortable with a mid-sized allocation, noting strong operational performance, delivering a 40% increase in vehicle production compared to the previous year.

Buy

Reviewed: January 2023

Ratings detail

ODD:	A1 pass	**Risk:**	●●○○
Business:	●●●●	**Perf:**	●●●○
Staff:	●●●●	**Terms:**	●●●○
Process:	●●●○	**ESG:**	Integrated

Key info

Appointed: 29 September 2006

Vehicle: Baillie Gifford Long Term Global Growth (+3% over 5-10yrs)

Mandate: Global Unconstrained Equities

Benchmark: FTSE All World Index from 31 March 2008

Target: To outperform the benchmark by 3% p.a. over rolling three-year periods.

Source: Aon, Northern Trust, data for periods longer than 12 months are annualised.

Baillie Gifford – LTGG (cont.)

Positioning and Transactions

During the period, the team sold out of Bilibilli, Meta Platforms and Peloton.

Bilibilli's sale reflects an ongoing rework of the strategy's Chinese exposure, preferring to invest in only its most compelling ideas, which are most aligned to government policy, to reflect elevated risks in the market. In part, due to market movement, the strategy's Chinese exposure has fallen from 30% to 17%, with one or two other further names identified as sources of funds.

Meta Platforms and Peloton had both been under close watch for a period of time. Peloton's execution has disappointed the team, and its recent move to focus away from international growth proved to be the final straw. With regards to Meta, the team has concern over its core advertising business, including greater competition from the likes of Apple and TikTok.

Major developments

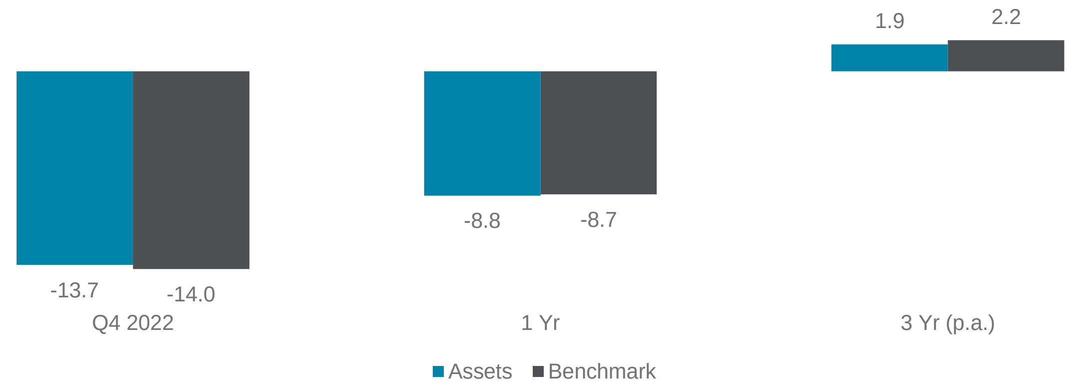
Research Visit

As mentioned in our previous communications, we are currently undertaking a review of the Baillie Gifford Long Term Global Growth strategy. This is partly due to the passage of time since our last on-site review and also in acknowledgement of a very steep drawdown in relative performance through the last 24 months. Such a review will consider events post our last deep review, such as the mentioned performance drawdown, but also incorporate a comparison and contemporary laddering exercise against managers we consider to be appropriate peers, across all subcomponent grade areas.

Since our last communication, we have conducted follow-up meetings with the manager focused on risk management within the investment strategy and are scheduled to debrief the strategy later in Q1 2023.

Hermes – Property Unit Trust

Q4 Fund performance & benchmark



Buy

Reviewed: November 2022

Q3 Monitoring comments

The performance of the Fund and the property market has been impacted by rapidly rising interest rates, increased borrowing costs, economic uncertainty and UK pension funds looking to exit real estate as they de-risk and look for liquidity. Industrial assets saw the largest decline over the quarter given their low yields (as yields increase, property values fall).

Southeast industrial assets in the Fund declined in value by 11.5% on average (the largest asset value decrease being 19%) while London City offices reduced in value by 5.3% on average. Despite the sharp correction in industrial valuations given their low yields, the industrial sector is still expected to provide strong rental growth over the medium term.

The strongest contributor to the quarterly return was the retail warehouse investment in Stratford-Upon-Avon due to positive letting activity. The other main contributor was the Great George Street London office where the valuation remained stable on the back of its likely alternative use as a hotel.

During the quarter the Manager completed two disposals. In July the Fund sold the industrial estate in West Horndon for a net price of £92.9 million. The sale reflected a premium of 39% over the end-February 2022 valuation of £66.6 million. In addition, the Fund disposed of a Tunbridge Wells office for £6.9 million, reflected a premium of 15% above the latest valuation.

Key info

Appointed: 27 February 2012

Vehicle: Property Unit Trust

Mandate: UK Property Pooled Fund

Benchmark: IPD Other Balanced Property Fund Index

Target: To Outperform the benchmark by 0.5% over three year rolling periods.

Source: MSCI data was used for fund performance and benchmarking purposes

Hermes – Property Unit Trust (cont.)

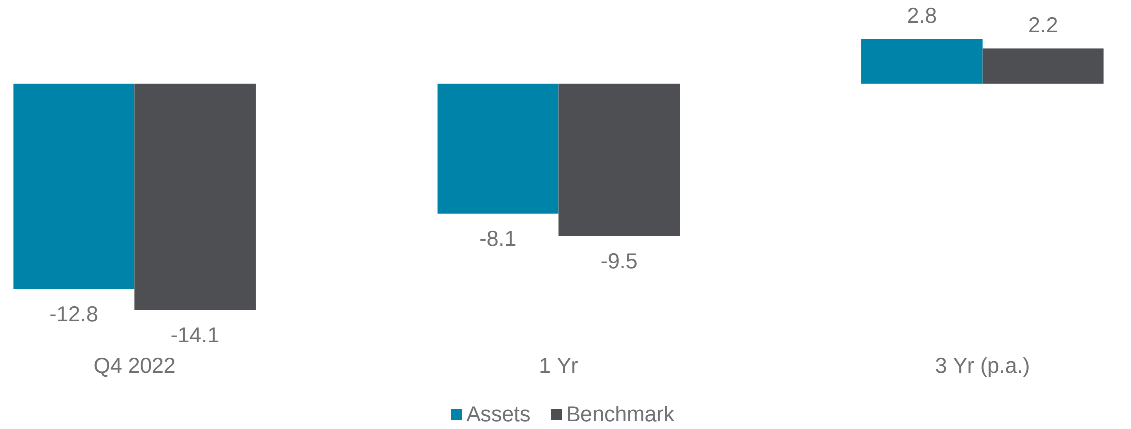
Q3 Major developments

The Manager took the decision to defer redemptions from September and requests can be deferred for up to three quarters. The decision by the Manager to defer redemptions has stemmed from elevated levels of redemptions and the current market conditions. Given the sudden rise in interest rates and borrowing costs, a sharp property pricing correction has begun and there is limited liquidity in the real estate markets.

£45.7 million of Q2 redemptions have been paid, but there are outstanding redemptions of c. £225 million yet to be paid. Given the scale of the redemptions and the expected decline in real estate values of c. 20-25% from the summer peak, the Manager is expecting the Fund to have fallen in value from £1.6 billion to around £1 billion at the start of Q1 2023. The magnitude of the level of redemptions is in line with other UK balanced open-ended funds.

LGIM – Managed Property Fund

Q4 Fund performance & benchmark



Qualified

Reviewed: November 2022

Q3 Monitoring comments

The Manager continues to have a largely negative view on the retail sector, particularly shopping centres and high street retail, despite forecasting that the relative performance gap will continue to narrow vs All Property. The Fund will therefore continue to underweight to retail assets, currently at 17% vs the benchmark weighting of 18%. Despite this negative outlook the Manager remains relatively upbeat on retail warehousing, and has a positive view on leisure assets, especially those located in core locations. These assets are forecast to outperform vs All Property up to 2026 and offer an attractive yield profile, presenting targets for asset management initiatives. Leisure assets remain the largest holding, c.40% of the alternatives weighting, with the Manager highlighting the compelling relative value case.

The Manager continues to favour other areas of the alternatives sector, forecasting outperformance in the near-term vs traditional sectors. Most notably, the Manager has a desire to increase the Fund's exposure to student accommodation and urban residential, the latter through its allocation to LGIM's BTR Fund. Alternatives currently make up 12.8% of the total portfolio, marginally higher than last quarter. As previously mentioned, the Manager has selectively looked to increase the portfolio's industrial exposure in the past. However, pricing expectations of sellers remains a concern and further upward pressure on property yields is expected into the new year given the turn in investor sentiment. The Manager also believes the current industrial holdings are of good quality and have room for rental growth.

Key info

Appointed: 1 November 2012

Vehicle: Property Fund

Mandate: UK Property Pooled Fund

Benchmark: IPD All Balanced Property Fund Index

Target: To outperform the benchmark by over three year rolling periods.

Source: MSCI data was used for fund performance and benchmarking purposes

LGIM – Managed Property Fund (cont.)

Q3 Monitoring comments (cont.)

The underweight position to industrials now stands at (39.4% versus 41,4%) and has benefitted the Fund over the last quarter. The Fund remains focused on rent collection, particularly from sectors that have legacy challenges following COVID-19, predominantly retail and leisure. The Fund's most recent rent collection stats show continued levels of rent stabilisation while the Fund is achieving collection rates very close to pre-COVID levels. Rent collection for the current quarter (to date) is currently 95% and similar levels are expected in Q4.

The Fund's void as a percentage of income remains marginally higher than the benchmark (10.3% vs 8%). However, the largest relative void is in the industrial portfolio, where there is strong occupational demand at rents ahead of estimated rental values. The Fund's cash level of 7.8% is also higher than the benchmark level of 5.2%.

Q3 Transactions

There were two transactions over the quarter, totalling £60.175 million with the sales of DHL Rugby and Taurus Business Park, Oxford. The DHL sale achieved a price of £46.675 million, reflecting a net initial yield of 3.7% and capital value of £139 per sq. ft. This distribution warehouse was purchased in 2013 for £23.15 million and has been a strong investment for the Fund. However, the asset is low yielding and, according to the Manager, faced further capital value declines in the short to medium term and offered few options for asset management initiatives, given it is single let. The Taurus Business Park sale achieved a price of £13.5 million, reflecting a net initial yield of 2.48%, equating to a capital value per sq. ft of £371. This asset has only been in the portfolio since Q1 2022 and is fully let leased to three occupiers including Big Yellow (the special purchaser), resulting in a 18% total return in 8 months.

Q3 Transactions (cont.)

The Fund has had a strong year regarding asset management initiatives, adding £31.7 million of added value so far. Over the quarter, the most notable lettings were two separate lease lettings at 45 Folgate Street, in central London at £72.50/75.00 per sq. ft to 3S Money, resulting in £800k of added value. Also, at Welwyn Garden City a new letting to Elder Engineering, an existing occupier, has been agreed for a 10-year term with a 5th year break at £14.50 ps ft, helping increase the rental tone across the industrial estate. As such, c.£1 million of added value has been achieved.

Major Developments

In line with many of its peers, LGIM has experience higher than usual level of requests to surrender units in the Fund. Whilst the Fund has a strong cash balance, recent market volatility has necessitated the implementation of the Fund's deferral policy. We believe the Fund will be able to actively manage the current redemption queue through sales and its cash balance (along with new inflows).

Source: MSCI data was used for fund performance and benchmarking purposes

Threadneedle – TPEN

Q4 Fund performance & benchmark

Buy

Reviewed: December 2022

Q3 Monitoring comments

Underperformance over Q3 2022 was attributed to an overweight position to industrial assets, which repriced sharply over the quarter.

The Fund has an overweight position to industrials, with 49% of portfolio invested in the sector versus the benchmark's 43.1%. The Fund now holds an overweight position to town centre offices vs the benchmark, 18% vs 14.1% alongside an underweight position to out of town offices, 8% vs 12.2%. The Fund has a marginal underweight position to Central London and Rest of UK offices and a slight overweight position to the Southeast. The Fund has a slight underweight to retail warehouses (13% versus 13.6%); this is a retail subsector that is expected to perform better than the broader property market over the next few years given the strong income returns and opportunity for better rental growth.

The Fund continues to work with occupiers on a case-by-case basis to agree appropriate strategies for rent collection, considering the cash flow position of occupiers' businesses. Rent collection for the forthcoming quarter stands at c.95% (as at Day 21). It is forecasted that rent collection rates as at the last day of the quarter will recover to pre-pandemic levels of c.99% as the backlog of rent arrears as a result of the pandemic is cleared. The Fund's vacancy rate stands at 8.9% marginally lower than the benchmark rate of 9.7%.

During Q3 2022, the Fund made one acquisition, a small unit shop in Wimbledon as well as 20 strategic asset sales.

Key info

Appointed: 21 June 2012

Vehicle: Property Fund

Mandate: UK Property Pooled Fund

Benchmark: IPD All Balanced Property Fund Index

Target: To outperform the benchmark by 1 to 1.5%.

Source: MSCI data was used for fund performance and benchmarking purposes

Threadneedle – TPEN (cont.)

Q3 Monitoring comments (cont.)

Total sales for the quarter were c.£89 million, representing a c.£13 million (c.13%) discount to valuation, as the Manager sought to increase the Fund's liquidity position towards the end of the quarter. Out of the 20 sales, 13 were small industrial units, all below £10 million. All other sales were in the retail sector. The Fund also undertook significant asset management activities over the quarter, most notably at St John's Square, London EC1, a 7,400 sq ft self-contained office building. The third to fifth floors totalling approximately 4,220 sq ft are currently undergoing a Category A refurbishment and an agreement for a lease has conditionally exchanged on approximately 3,250 sq ft (approximately 77% of total void), with an achieved headline rent of £71.20 per sq ft on the fourth floor, representing a 14% uplift to levels achieved pre refurbishment.

Major Developments

At the end of Q3 2022, the Fund's liquidity position was c.£85.6 million, equivalent to c.4.2% of net asset value (NAV). The Fund's Redemption Deferral Policy was effective for investor dealings from 3 October 2022 to protect all Investors' interests, because of the volatility in the investment market since 23 September 2022. The manager continues to monitor liquidity closely as a means of protecting the Fund against the prevailing market volatility.

BCPP – Quarterly high level monitoring (Q3 2022)

Changes to Senior Management at BCPP

- Mark Lyon, previously Head of Internal Management, is to take on a new role of Deputy Chief Investment Officer.
- Ian Sandiford has been promoted into a new role of Head of Alternatives, Richard McBeath has been promoted into a new role of Senior Portfolio Risk Manager, and Daniel Loughney has been promoted into a new role of Senior Portfolio Manager – Fixed Income.

Changes to views of External Managers

- BCPP UK Equity Alpha:
  - BCPP have assessed Baillie Gifford in line with the areas outlined when the manager was placed on the Watchlist with discussions following internally, in conjunction with consideration regarding their proximity to their upper limit on their Tracking Error guidelines.

Breaches to risk controls and ranges

- No breaches reported in BCPP reporting this quarter.

Changes in structure, investment processes or risk management

- No material changes reported in BCPP reporting this quarter

Source: Aon, BCPP – External Management Quarterly Updates Q3 2022, Internal Management Quarterly Update Q3 2022, BCPP Quality Assurance Information quarterly spreadsheet Q3 2022

BCPP – Quarterly high level monitoring (Q4 2022)

Changes to Senior Management at BCPP

- Joe McDonnel was appointed as the new CIO, with interim-CIO John Harrison now in an advisory role.

Changes to views of External Managers

- BCPP UK Equity Alpha
  - Baillie Gifford have been removed from the Watchlist by the CIO following consultation with the Investment Committee. This decision was based on the factors set out when the manager was initially placed on the Watchlist. BCPP are continuing dialogue with Baillie Gifford regarding their proximity to their upper limit on their Tracking Error guidelines as part ongoing monitoring discussions.

Breaches to risk controls and ranges

- No breaches reported in BCPP reporting this quarter.

Changes in structure, investment processes or risk management

- BCPP Global Equity Alpha
  - Emerging Market Managers - Fountain Cap (China Equity) and Goldman Sachs (Emerging Markets ex China) were added in the quarter (1/12/2022 transition during November), addressing the structural underweight to Emerging Markets in the Fund.

Source: Aon, BCPP – External Management Quarterly Updates Q4 2022, Internal Management Quarterly Update Q4 2022, BCPP Quality Assurance Information quarterly spreadsheet Q42022

Border to Coast Pensions Partnership – RI Quarterly Report Snapshot

UK Equity Alpha Fund

Fund	Q4 2022 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
UK Equity Alpha	**60.9**	**7.7**
Benchmark (FTSE All Share)	**121.4**	**7.8**

Global Equity Alpha Fund

Fund	Q4 2022 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Global Equity Alpha	**94.8**	**7.1**
Benchmark (MSCI ACWI)	**159.2**	**6.8**

Sterling Investment Grade Credit Fund

Fund	Q4 2022 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Sterling Investment Grade Credit	**74.9**	**7.2**
Benchmark (iBoxx Sterling Non Gilt Index)	**80.5**	**7.5**

Listed Alternatives Fund

Fund	Q4 2022 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Listed Alternatives	**161.0**	**7.0**
Benchmark (MSCI ACWI)	**159.2**	**6.8**

Source: BCPP/MSCI[1]

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7. Further information

Key reference information about your scheme

Explanation of Ratings – Overall ratings

Overall ratings

An overall rating is then derived taking into account both the above outcomes for the product. The table lists how the overall rating can be interpreted.

The comments and assertions reflect our views of the specific investment product and our opinion of its quality. Differences between the qualitative and Aon InForm outcome can occur and if meaningful these will be explained within the Key Monitoring Points section. Although the Aon InForm Assessment forms a valuable part of our manager research process, it does not automatically alter the overall rating where we already have a qualitative assessment. Overall rating changes must go through our qualitative manager vetting process. Similarly, we will not issue a Buy recommendation before fully vetting the manager on a qualitative basis.

Overall Rating	What does this mean?
Buy	We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products
Buy (Closed)	We recommend clients invest with or maintain their existing allocation to our Buy rated high conviction products, however it is closed to new investors
Qualified	A number of criteria have been met and we consider the investment manager to be qualified to manage client assets
Not Recommended	A quantitative assessment of this strategy indicates it does not meet our desired criteria for investment. This strategy is not recommended.
Sell	We recommend termination of client investments in this product
In Review	The rating is under review as we evaluate factors that may cause us to change the current rating

Explanation of Ratings – Overall ratings

ESG Factor

The ESG factor is assigned a rating and can be interpreted as follows:

	Key
Advanced	The fund management team demonstrates an advanced awareness of potential ESG risks in the investment strategy. The fund management team can demonstrate advanced processes to identify, evaluate and potentially mitigate these risks across the entire portfolio.
Integrated	The fund management team has taken appropriate steps to identify, evaluate and mitigate potential financially material ESG risks within the portfolio.
Limited	The fund management team has taken limited steps to address ESG considerations in the portfolio.

Method

The funding update has been prepared in accordance with the framework below.

- This funding update is consistent with the calculations for the initial results of the actuarial valuation as at 31 March 2022. The assumptions used have been modified only insofar as is necessary to maintain consistency with the approach set out in the latest Funding Strategy Statement, reflecting the change in the effective date and in relevant market conditions.
- The funding update is projected from the initial results of the actuarial valuation as at 31 March 2022 valuation and is therefore approximate. Since the update is not based on up-to-date membership data, it becomes more approximate the longer the period of time that has elapsed since the last actuarial valuation.
- The funding update takes account of the following over the period since the last formal actuarial valuation:
  – Cashflows into and out of the Fund estimated based on the 2022 valuation results;
  – Actual price inflation and its impact on benefit increases.
- Demographic experience since the last formal actuarial valuation has been assumed to be in line with the assumptions set out in the 2022 Valuation initial results report.
- This update is designed to give a broad picture of the direction of funding changes since the actuarial valuation but does not have the same level of reliability as, and therefore does not replace the need for, formal actuarial valuations.
- It does not reflect any changes to assumptions which would be made if a full actuarial valuation were to be carried out to reflect, for example, changes to the investment strategy or economic outlook.
- For the purpose of this funding update, we have used an un-audited value of the assets as at 30 November 2022 provided by the Administering Authority and rolled it forward using appropriate index returns to 31 December 2022
- The whole of fund total employer contribution rates shown in this funding update allow for a recovery period ending 31 March 2041 and allow for any surplus in excess of 110% to be recovered as set out in the Funding Strategy Statement
- The assumptions used in this funding update are as follows:

	Discount rate	Pay growth	Pension increases *
31 March 2022	4.20%	3.55%	2.30%
30 September 2022	4.70%	3.55%	2.30%
31 December 2022	4.80%	3.55%	2.30%

* Plus an allowance for short term inflationary increases

Risk/Return Assumptions

- The table below sets out the asset and liability return assumptions over 10 years, together with the asset allocation and exposures used. These are based on Aon's Capital Market assumptions as at 31 December 2022.

High level asset class	Expected Return	Expected Volatility
Equities	7.6%	18.9%
Property	5.8%	12.6%
Infrastructure	7.8%	15.8%
Listed alternatives	7.5%	19.3%
Illiquid credit	8.0%	5.7%
Investment grade credit	5.5%	9.4%
Non-investment grade credit	6.5%	9.4%
Absolute Return	6.3%	5.3%
Gilts	3.5%	9.7%
Cash	3.6%	1.4%

Note: all statistics are 10 year median expected returns/volatility of returns.

Correlation Table

High level asset class	Equities	Property	Infrastructure	Listed Alternatives	Illiquid credit	IG Credit	Non-IG Credit	Absolute Return	Gilts	Cash
Equities	100%	38%	61%	100%	29%	3%	55%	21%	-8%	-2%
Property		100%	19%	36%	30%	4%	28%	9%	-1%	7%
Infrastructure			100%	63%	15%	3%	23%	20%	-3%	1%
Listed Alternatives				100%	28%	3%	54%	21%	-7%	-2%
Illiquid credit					100%	54%	67%	17%	7%	24%
IG Credit						100%	26%	17%	52%	41%
Non-IG Credit							100%	17%	1%	7%
Absolute Return								100%	10%	33%
Gilts									100%	31%
Cash										100%

Data and assumptions

Date of calculation	31 December 2022
Number of simulations	5000
Time horizon	10 years
Asset value	£ 4,001,077,118

- Infrastructure is modelled as a blend of 37.5% EU and 62.5% US Infrastructure in line with BCPP's mandate.
- Listed Alternatives are modelled as passive global equities (including emerging markets).
- Private Credit modelled as combination of 2/3 Senior Direct Lending (for Arcmont and Permira) and 1/3 Whole Property Debt (for BCPP).
- Gilts are modelled as a 62.9% 15 year index-linked gilts and 37.1% 20 year index-linked gilts.
- Property is modelled as UK Property.
- Liquid IG Credit modelled as UK corporate bonds (A-rated with average duration of 10 years)
- Liquid Non-IG Credit modelled as high yield multi-asset credit.
- Absolute Return is modelled as Leadenhall Insurance Linked Securities modelled as an equal blend of Aggressive, Conservative and Moderate ILS.
- The Fund has an allocation to Equities which make up 50% of the long term allocation.
- For modelling purposes (and for consistency with the approach taken by the Actuary) we do not allow for any outperformance from active management (alpha).
- We have not allowed for the impact of equity protection on the risk and return of the portfolio
- Equities have been modelled using region splits in line with the long term allocation:

Passive UK Equity	10%
Passive Global Equity (including Emerging Markets)	90%

Key assumptions of the model (1)

- The purpose of the model is to consider and monitor the return and risk characteristics of the current and long term investment strategy of the Scheme.
  - The analysis considers the expected return of the Scheme's investment strategy and the 1-in-20 downside 5th percentile Value at Risk implied by the strategy.
  - These metrics are considered as at the stated quarter-end.

- Investment risk is included in the model outputs but this is not the only risk that the Scheme faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.
- Investment risk has been calculated on an asset only basis.

Key assumptions of the model (2)

- The calculation of portfolio risk is approximate;
  - The calculation considers (5000 stochastic) simulations of returns over a single year of the Scheme's investment strategy.
  - The simulations are constructed using Aon Solution's Asset Model – the details and assumptions of which are outlined in this appendix.
  - The calculation does not take into account any cashflows payable over the year; if cashflows are expected to be material the result is likely to be different.
  - Risks are attributed into the categories outlined in the chart only; the investment strategy may be exposed to further risk categories not shown.
  - The calculation does not take into account longevity risk (i.e. liability values increasing due to members living longer than assumed).
  - Owing to these approximations, a more detailed ALM study is likely to result in a different result to the VaR calculation.
  - Other portfolios with different risk and return characteristics may be available to the Scheme along the journey to full funding.

TAS compliance

This document has been prepared in accordance with the framework below.

This document has been requested by the Administering Authority. It has been prepared under the terms of the Agreement between the North Yorkshire County Council and Aon Solutions UK Limited on the understanding that it is solely for the benefit of the addressee.

This document, and the work relating to it, complies with 'Technical Actuarial Standard 100: Principles for Technical Actuarial Work' ('TAS 100').

The compliance is on the basis that North Yorkshire County Council is the addressee and the only user and that the document is for information only and is not to be used to make any decisions on the contributions payable or the investment strategy. If you intend to make any decisions after reviewing this document, please let me know and I will consider what further information I need to provide to help you make those decisions.

This report should be read in conjunction with:

- The initial results report of the 2022 actuarial valuation of the Fund dated 27 September 2022.
- Our paper entitled 'Financial assumptions – Actuarial valuation as at 31 March 2022'
- The latest Funding Strategy Statement.

If you require further copies of any of these documents, please let me know.

Third party disclaimer – 1 of 3

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