

Quarterly Funding & Investment Report

End March 2025

Prepared for: North Yorkshire Pension Fund

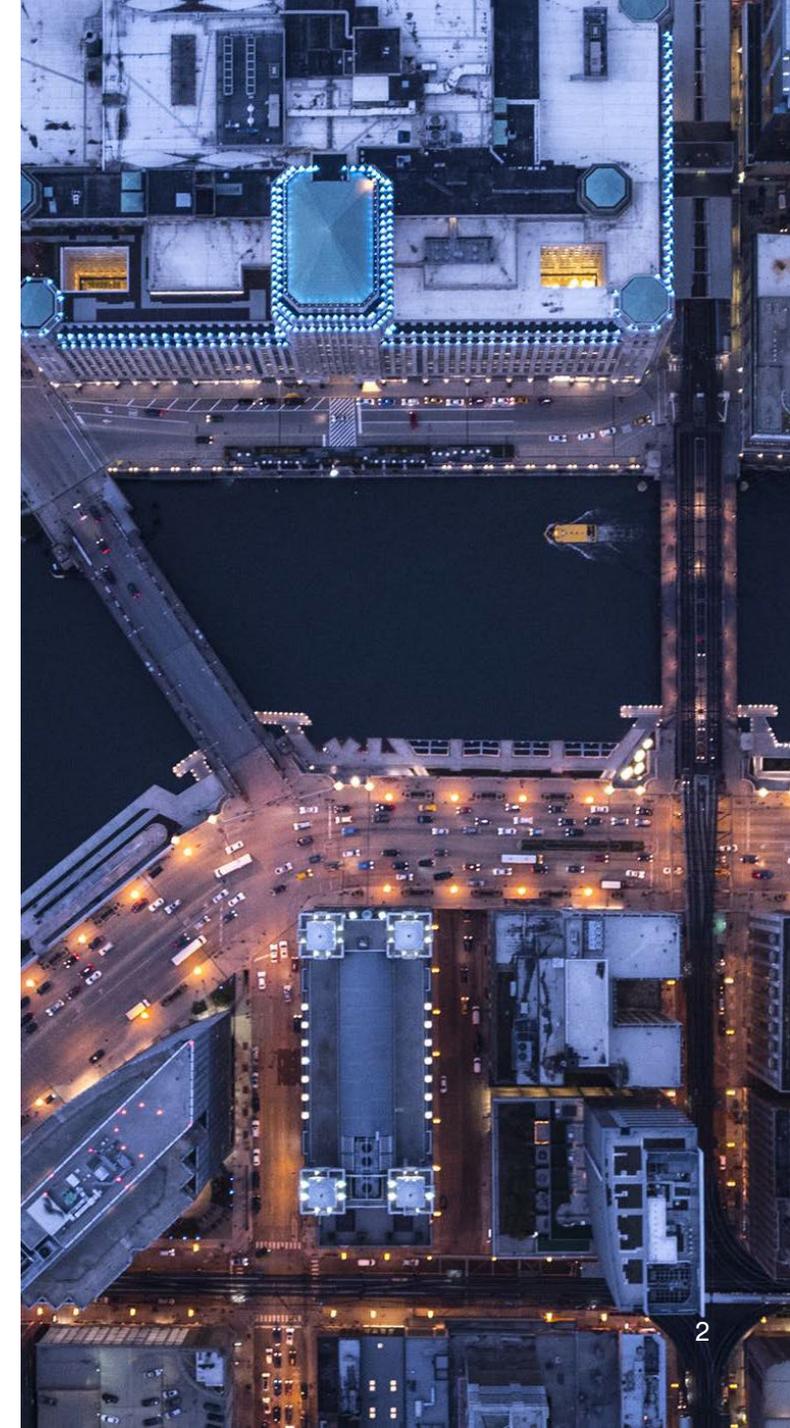
Prepared by: Aon

23 May 2025

For professional clients only. Private and Confidential

Contents

1 At a glance	<u>3</u>
2 Funding	<u>6</u>
3 Asset Allocation	<u>11</u>
4 Fund performance	<u>16</u>
5 Market background and investment outlook	<u>23</u>
6 Manager review	<u>27</u>
7 Further information	<u>36</u>



1

At a glance

A high level summary of your investments and funding

AON



At a glance...

Funding*	Asset Allocation and Implementation	Performance	Market Background and Investment Outlook (May 2025)**
<p>Since the results of the valuation at 31 March 2022 the Fund's ongoing funding has level increased by 4%, and the surplus has increased by £147M.</p> <p>This has been primarily driven by an increase in the net discount rate, although this has been offset by asset returns being lower than expected and pension increases being higher than expected.</p>	<p>At the February 2025 PFC meeting, a new strategic asset allocation was agreed ahead of the 31 March 2025 actuarial valuation. Further advice on how the agreed strategy will be implemented will be discussed and considered over the coming months.</p> <p>Post quarter end, Officers and Advisors agreed to rebalance from UK Equity to Index Linked Gilts as part of moving towards the new investment strategy.</p> <p>Officers and Advisors are due to hold further discussions around short-term tactical asset allocation changes and rebalancing opportunities took place prior to the May PFC meeting.</p>	<p>Total Fund performance is ahead of the composite benchmark over the quarter, behind over the 1 year and 3 year periods, and broadly in-line over the 5 year period to 31 March 2025.</p> <p>Note the 3 and 5 year performance periods are still impacted by elevated volatility and challenging markets conditions over the 2020s which has included the Covid-19 pandemic, elevated inflation levels, and increased geopolitical tensions.</p>	<p>Global equity markets fell over the quarter, with the MSCI ACWI decreasing by 2.0% in local currency and 4.2% in sterling terms.</p> <p>Our base case is that a full-on global recession is avoided (with the National Bureau of Economic Research not declaring a U.S. recession) but recession risks are growing. Noisy economic data as a result of rushed orders ahead of U.S. tariff increases and increased uncertainty halting capex decisions means that the global economy is in a state of flux with hard data difficult to interpret.</p> <p>“Going global” for both equities and credit has served UK investors well over the last 16 years, reducing exposure to a relatively weak UK economic and market performance. However, with the share of U.S. equity markets around 70% of MSCI World index, are investors taking too much U.S. focused risk?</p>

KEY ACTIONS

- Committee members to consider the contents of this report.
- Following the agreement of the new investment strategy and changes to Border to Coast Global Equity Alpha, Committee members are asked to review and consider a paper regarding the composition of the Fund's equity portfolio at the May PFC meeting.

Note: *This funding update rolls forward the results of the 2022 valuation of the Fund. We have made allowance for actual pension increases since the valuation (allowing for pension increases awarded in April 2023 and April 2024).

Note: **The opinions referenced are as of the date of publication (1 May 2025) and are subject to change due to changes in the market or economic conditions and may not necessarily come to pass. Information contained herein is for informational purposes only and should not be considered investment advice.

Key Stats – Q1 2025

<p>Assets</p> <p>£4,722m</p> <p>Assets increased by £87m since 2022 valuation. £4,635m at 2022 valuation</p> 	<p>Funding level</p> <p>120%</p> <p>Funding level increased by 4% since 2022 valuation 116% at 2022 valuation</p> 	<p>Return on Assets since 2022 Valuation</p> <p>0.9% pa</p> <p>This is below the assumed rate of return.</p> 
<p>Current Assets Expected Return (10 year p.a.)</p> <p>+7.4%</p> <p>1.5% increase since 2022 Valuation 5.9% at 2022 valuation</p> 	<p>Long-term Strategy Expected Return (10 year p.a.)</p> <p>+7.6%</p> <p>1.5% increase since 2022 Valuation 6.1% at 2022 valuation</p> 	<p>Discount rate</p> <p>5.05%</p> <p>Discount rate has increased by 0.85% since 2022 valuation 4.2% at 2022 valuation</p> 
<p>Current Assets Value at Risk (1 Year 1 in 20)</p> <p>£1,127m</p>	<p>Long-term Strategy Assets Value at Risk (1 Year 1 in 20)</p> <p>£977m</p>	

2

Funding

A review of your funding position
and contributions



Funding position

Funding level	Surplus	Comments
<p>120%</p> <p>at end 31 March 2025</p> <p>Increased from 116% at 31 March 2022</p>	<p>£787M</p> <p>at end 31 March 2025</p> <p>Up from £640m at 31 March 2022.</p>	<p>Since the results of the valuation at 31 March 2022 the Fund's ongoing funding has level increased by 4%, and the surplus has increased by £147M.</p>
		<p>This has been primarily driven by an increase in the net discount rate, although this has been offset by asset returns being lower than expected and pension increases being higher than expected.</p>

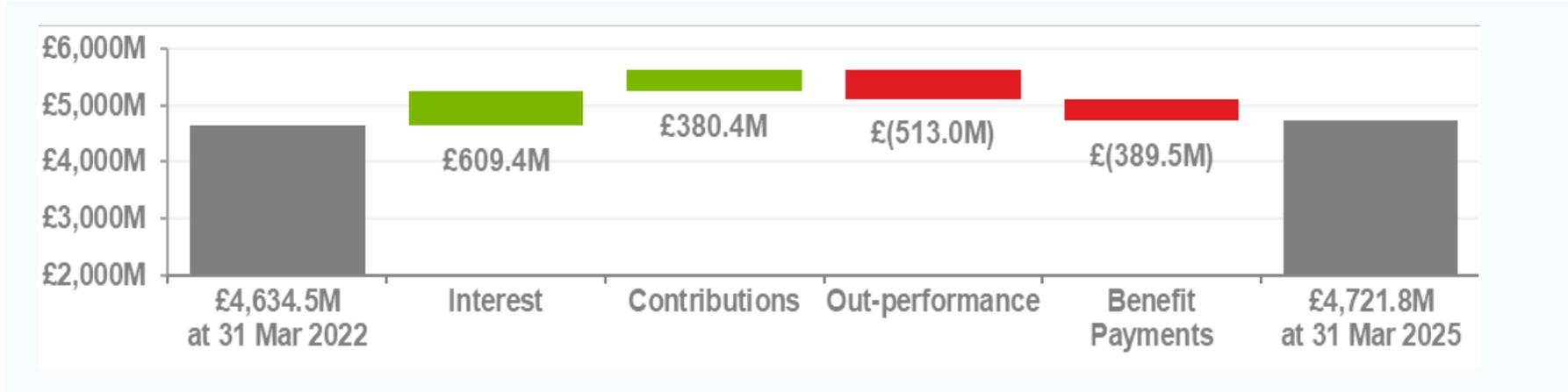
Change to funding level since 31 March 2022



AON Note: This funding update rolls forward the results of the 2022 valuation of the Fund. We have made allowance for actual pension increases since the valuation (allowing for pension increases awarded in April 2023 and April 2024)

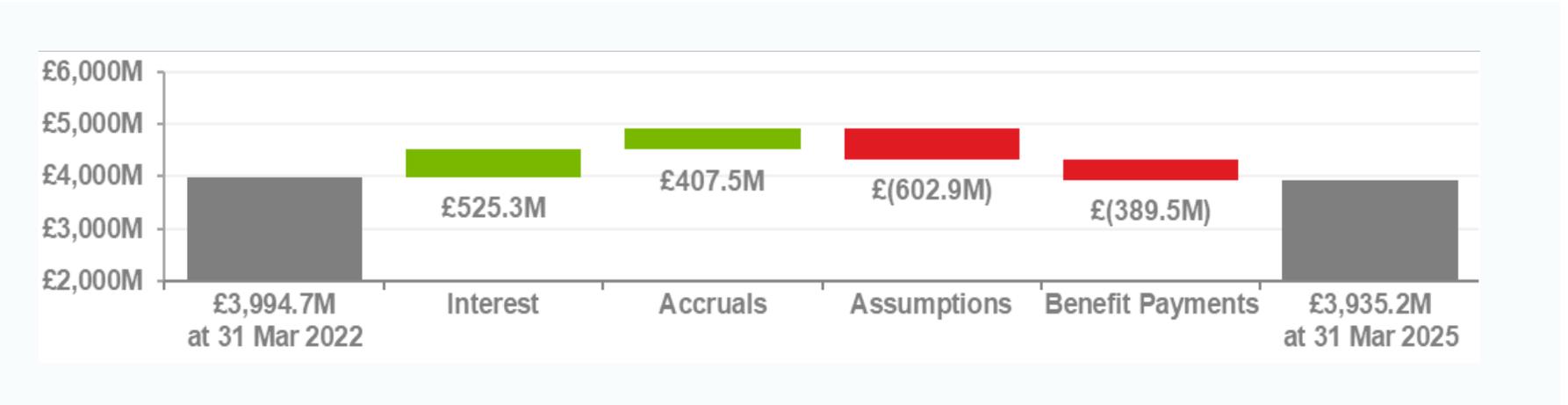
Analysis – ongoing funding target

Reason for change since 31 March 2022 – Asset Attribution



Comments
 Since the 2022 valuation the surplus has increased by £147M

Reason for change since 31 March 2022 – Liability Attribution



Funding position – Low Risk funding target

Funding level

101%

31 March 2025

64%

31 Mar 2022

Basis: Low Risk funding target
Effective date: 31 March 2025

Surplus

£57M

31 March 2025

Deficit

£2,573M

31 Mar 2022

Comments

The funding level on the low-risk basis has increased since the last valuation due to a rise in gilt yields over the period, leading to a decrease in the liabilities.

Low risk funding target

Change to funding level since 31 March 2022



3

Asset Allocation

A review of your strategic asset allocation



Overall Asset Allocation – Q1 2025

Asset Group	Manager	Valuation (£m)	Current allocation	Long-term strategy	31 March 2025		Possible action
					Difference	Rebalancing Range	
Equities		2,044.8	43.3%	39.0%	4.3%		
	BCPP UK Equity	112.3	2.4%				
	BCPP Global Equity	1,394.9	29.5%				
	Baillie Gifford LTGG	537.6	11.4%				
Property		291.6	6.2%	4.25%	1.95%		
	L&G	47.8	1.0%				
	Threadneedle	243.8	5.2%				
Infrastructure		773.0	16.4%	15.0%	1.4%		
	BCPP Infrastructure	404.9	8.6%				
	BCPP Listed Alts	286.8	6.1%				
	BCPP Climate Opportunities	77.6	1.6%				
	BCPP UK Opportunities	3.7	0.1%				

Overall Asset Allocation – Q1 2025 (cont.)

Asset Group	Manager	Valuation (£m)	Current allocation	31 March 2025		Possible action
				Long-term strategy	Difference	
Private Credit		220.6	4.7%	11.0%	-6.3%	
	BCPP Private Credit	194.4	4.1%			
	Arcmont	19.4	0.4%			
	Permira	6.8	0.1%			
Non-Investment Grade Credit		258.8	5.5%	5.25%	0.25%	
	BCPP Multi Asset Credit	258.8	5.5%			
Investment Grade Credit		367.3	7.8%	8.0%	-0.2%	
	BCPP Investment Grade Credit	367.3	7.8%			
Gilts		696.1	14.7%	17.5%	-2.8%	
	BCPP Index Linked Bonds	696.1	14.7%			
Cash		69.6	1.5%	0.0%	1.5%	
	Internal Cash	69.6	1.5%			
Total		4,721.8	100.0%	100.0%		

Investment strategy update

Recent and upcoming activity

- Follow up discussions from the initial investment strategy review process were held with Committee members at the February PFC meeting. A new strategic asset allocation was agreed ahead of the 31 March 2025 actuarial valuation. Further advice on how the agreed strategy will be implemented will be discussed and considered over the coming months.
- Post quarter end, Officers and Advisors agreed to rebalance from UK Equity to Index Linked Gilts as part of moving towards the new investment strategy.
- Officers and Advisors are due to hold further discussions around short-term tactical asset allocation changes and rebalancing opportunities took place prior to the May PFC meeting.
- Following the agreement of the new investment strategy and changes to Border to Coast Global Equity Alpha, Committee members are asked to review and consider a paper regarding the composition of the Fund's equity portfolio at the May PFC meeting.
- There is limited support from other Border to Coast partner funds for listed impact equities, however this will continue to be discussed with the Committee and Officers.
- We believe there remains attractive opportunities available in non-traditional asset classes such as diversifying hedge funds and insurance linked securities, however, Border to Coast do not currently have any fund offerings for these asset classes.

Transitions and cashflows

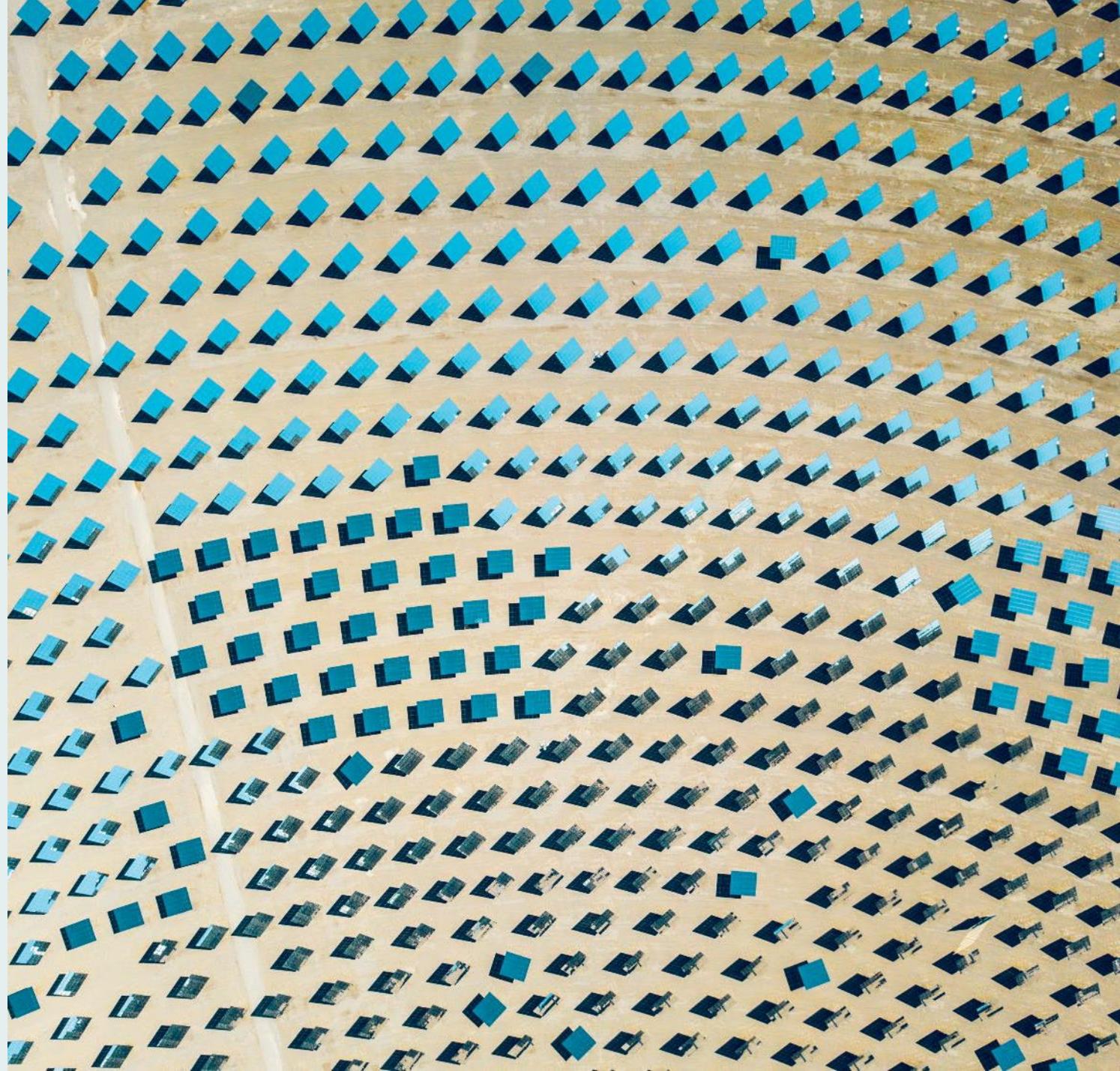
The following rebalancing activities took place over the quarter:

- Over the quarter, the following trading took place:
 - £85m redemption from BCPP UK Equity
 - £100m redemption from Baillie Gifford LTGG
 - £215m investment into BCPP Index Linked Bonds
 - £20m investment into BCPP Investment Grade Credit
- Net capital calls and distributions:
 - Infrastructure: c.+£7m
 - Private Credit: c.+£10m
 - Climate Opportunities: c.+£5m
 - UK Opportunities: c.+£3m
- The overall net cash position reduced by £75m.

4

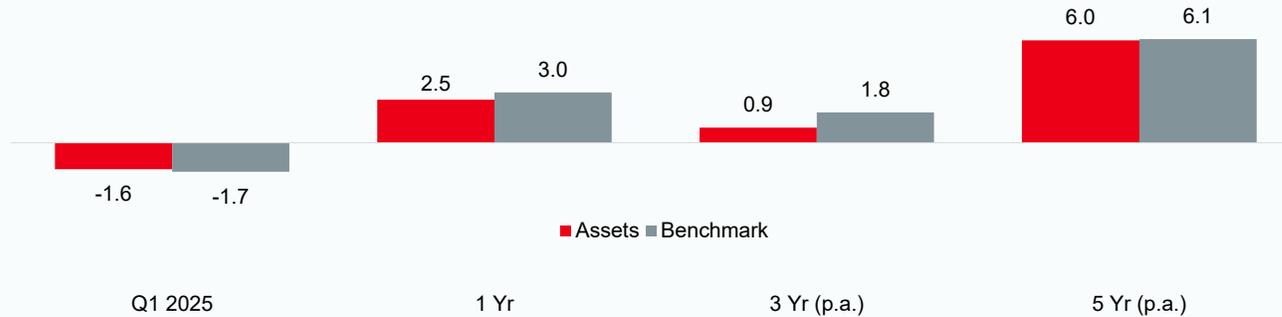
Fund performance

A review of your investment performance



Total Fund performance – Snapshot

Fund performance & benchmark



Quarterly (relative)

0.1%

The Fund outperformed the benchmark returning -1.6% vs -1.7% over the quarter.



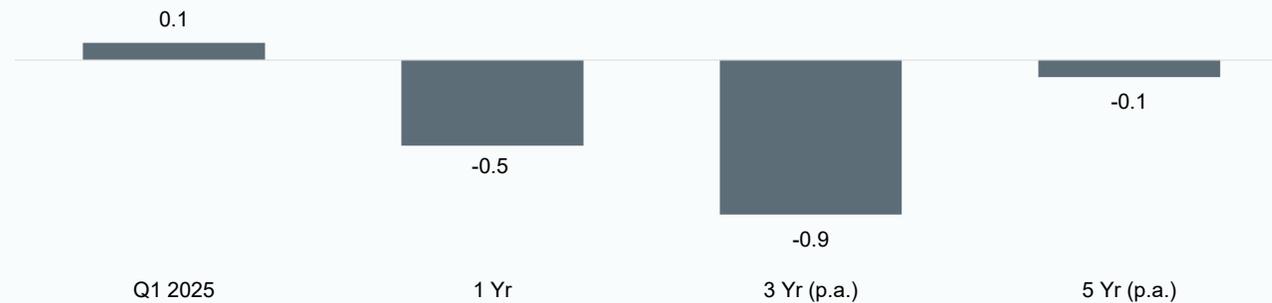
3 year (relative)

-0.9%

Over 3 years the Fund has underperformed the benchmark returning 0.9% vs 1.8%.



Relative performance



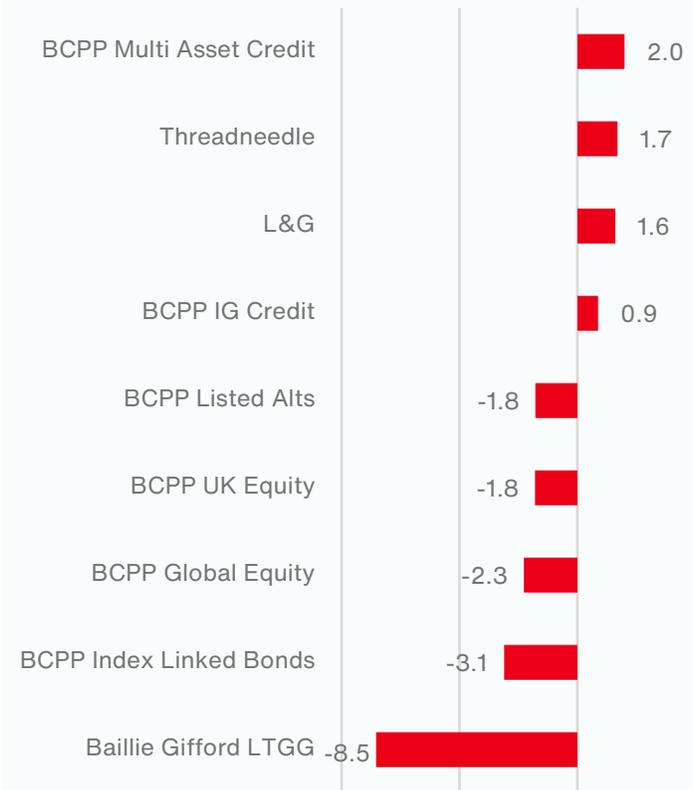
Comments

Total Fund performance is ahead of the composite benchmark over the quarter, behind over the 1 year and 3 year periods, and broadly in-line over the 5 year period to 31 March 2025.

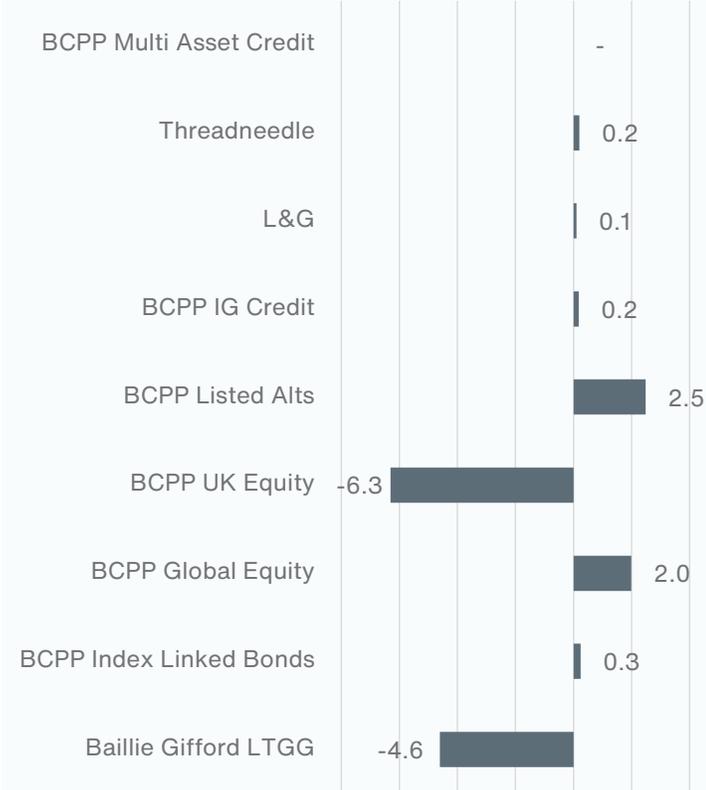
Note the 3 and 5 year performance periods are still impacted by elevated volatility and challenging markets conditions over the 2020s which has included the Covid-19 pandemic, elevated inflation levels, and increased geopolitical tensions.

Manager performance – Quarter Snapshot

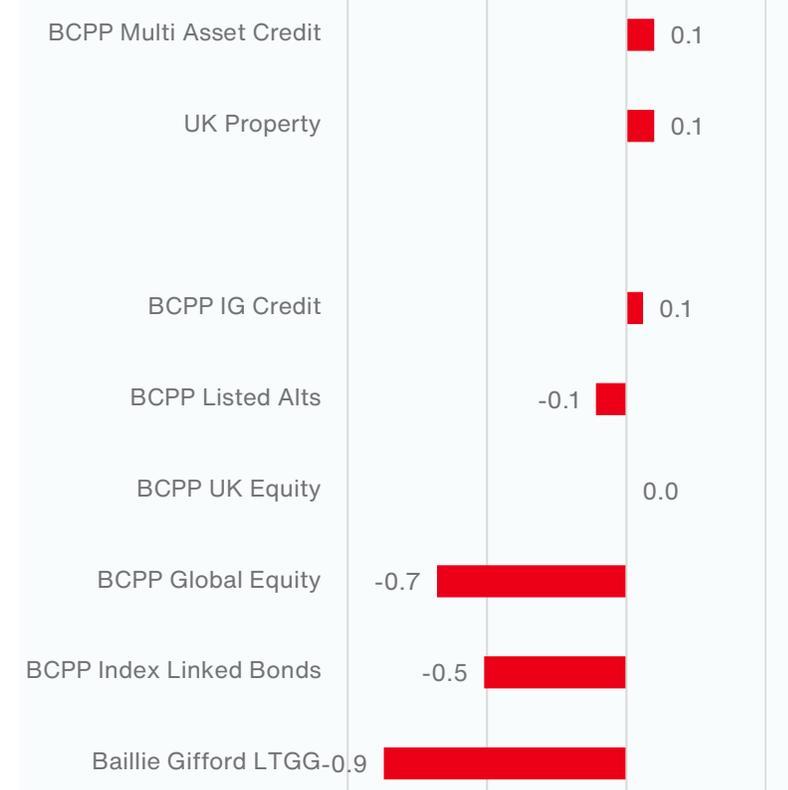
Absolute performance



Relative performance



Contribution to absolute return



Manager performance – Longer term

	Q1 25 asset allocation	1 Year (%)			3 Years (% p.a.)			5 Years (% p.a.)			Since inception			Inception date
		Perf	B'mark	Rel	Perf	B'mark	Rel	Perf	B'mark	Rel	Perf	B'mark	Rel	
Equity														
UK Equity														
BCPP UK Equity	2.4%	7.2	10.5	-3.3	4.0	7.2	-3.2	10.8	12.0	-1.2	4.1	5.9	-1.8	Jun-19
Global Equity														
BCPP Global Equity	29.5%	1.6	4.9	-3.3	7.6	7.6	0.0	14.8	14.4	0.4	9.4	10.4	-1.0	Oct-19
Baillie Gifford LTGG	11.4%	6.5	5.5	1.0	5.1	8.1	-3.0	13.1	14.8	-1.7	14.4	9.7	4.7	Sep-06
Property														
L&G	1.0%	7.0	6.4	0.6	-2.3	-3.3	1.0	3.2	2.7	0.5	-	-	-	Dec-12
Threadneedle	5.2%	5.9	6.4	-0.5	-2.8	-3.3	0.5	2.9	2.7	0.2	-	-	-	Jun-12
Infrastructure														
BCPP Listed Alts	6.1%	7.7	4.9	2.8	2.0	7.6	-5.6	-	-	-	3.2	7.7	-4.5	Feb-22
Investment grade credit														
BCPP Investment Grade Credit	7.8%	2.8	2.4	0.4	-0.1	-0.8	0.7	-	-	-	-0.9	-2.0	1.1	Aug-20
Non-investment grade credit														
BCPP Multi-Asset Credit	5.5%	7.4	8.6	-1.2	4.3	7.6	-3.3	-	-	-	2.2	7.1	-4.9	Nov-21
Gilts														
BCPP Index Linked Bonds	14.7%	-15.1	-15.3	0.2	-22.9	-23.1	0.2	-	-	-	-15.9	-16.6	0.7	Oct-20
Total		2.5	3.0	-0.5	0.9	1.8	-0.9	6.0	6.1	-0.1	6.9	7.2	-0.3	Jan-02



Source: Northern Trust, Managers, Aon. Numbers may not sum due to rounding.
 Note: L&G, Threadneedle; MSCI data was used fund performance and benchmarking purposes.

Border to Coast Pensions Partnership – Private Markets Performance Summary

BCPP Infrastructure

Fund	Q1 2025 Position				
	Capital Committed	Capital Drawn	Capital Distributed ¹	IRR ²	TVPI ²
Series 1A	98.7%	90.4%	27.8%	8.1%	1.23x
Series 1B	98.7%	78.4%	6.3%	4.6%	1.10x
Series 1C	100.0%	87.9%	14.5%	9.6%	1.23x
Series 2A	99.7%	57.2%	3.9%	-	-
Series 2B	99.9%	29.4%	0.2%	-	-
Series 2C	92.6%	29.7%	1.1%	-	-

BCPP Private Credit

Fund	Q1 2025 Position				
	Capital Committed	Capital Drawn	Capital Distributed ¹	IRR ²	TVPI ²
Series 1A/B	99.5%	95.6%	36.5%	10.4%	1.23x
Series 1C	99.5%	83.4%	27.9%	10.4%	1.15x
Series 2A	100.0%	47.4%	5.9%	-	-
Series 2B	99.1%	22.7%	2.4%	-	-
Series 2C	49.0%	17.4%	0.0%	-	-

Border to Coast Pensions Partnership – Private Markets Performance Summary (cont.)

BCPP Climate Opportunities

Fund	Q1 2025 Position				
	Capital Committed	Capital Drawn	Capital Distributed ¹	IRR	TVPI
Climate Opps Series 1 (Series 2A/B)	99.9%	50.8%	6.0%	-	-
Climate Opps Series 2 (Series 2C)	41.4%	24.2%	0.1%	-	-

BCPP UK Opportunities

Fund	Q1 2025 Position				
	Capital Committed	Capital Drawn	Capital Distributed ¹	IRR	TVPI
UK Opps (Series 1)	26.5%	34.0%	0.0%	-	-

Border to Coast Pensions Partnership – Private Markets Commitments Summary

Strategy	Total NYPF Commitments									
	Series 1	1A	1B	1C	Series 2	2A	2B	2C	Series 3*	3A*
Private Credit	£195m	£75m		£120m	£210m	£70m	£70m	£70m	£220m	£220m
Infrastructure	£320m	£70m	£50m	£200m	£360m	£120m	£120m	£120m	£80m	£80m
Climate Opportunities	N/A	N/A			£260m	£140m		£120m	N/A	N/A
UK Opportunities	N/A	N/A			£50m	N/A		£50m	N/A	N/A

5

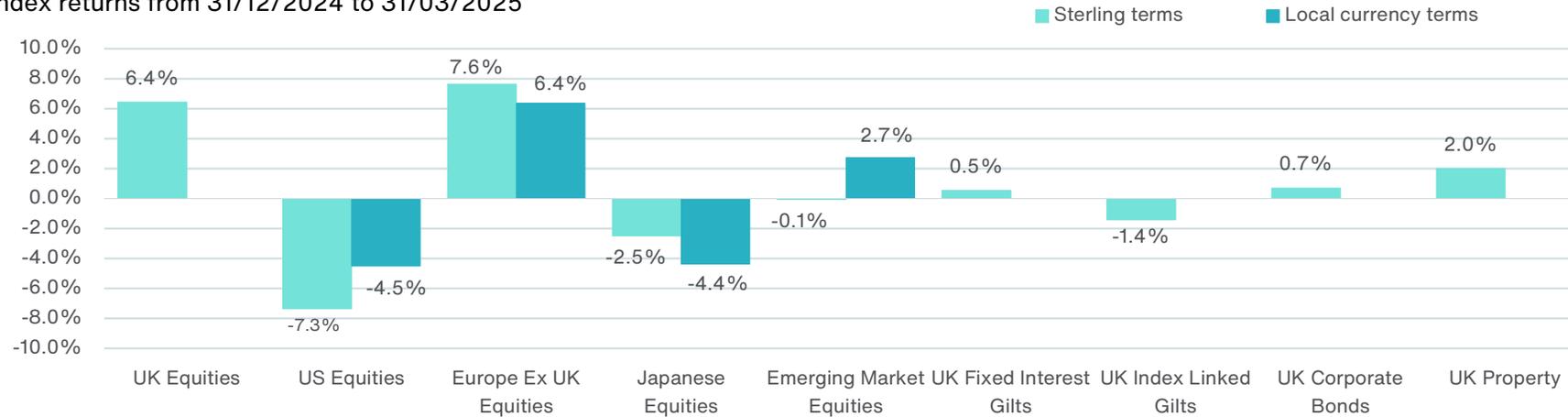
Market background and investment outlook

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



Market Background Q1 2025

Index returns from 31/12/2024 to 31/03/2025



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

Equities

Global equity markets fell over the quarter, with the MSCI ACWI decreasing by 2.0% in local currency and 4.2% in sterling terms.

Bonds

UK investment grade credit spreads widened by 0.09% to 1.02% over the quarter, based on the IBoxx Sterling Non-Gilts index. The highest-quality bond credit spread narrowed whilst other counterparts widened, with AAA-rated non-gilt spreads falling by 0.03% to 0.27%, AA-rated non-gilt spreads rising by 0.03% to 0.60%, and BBB-rated non-gilt spreads rising by 0.12% to 1.43%. The IBoxx Sterling Non-Gilts Index posted a return of 0.7%.

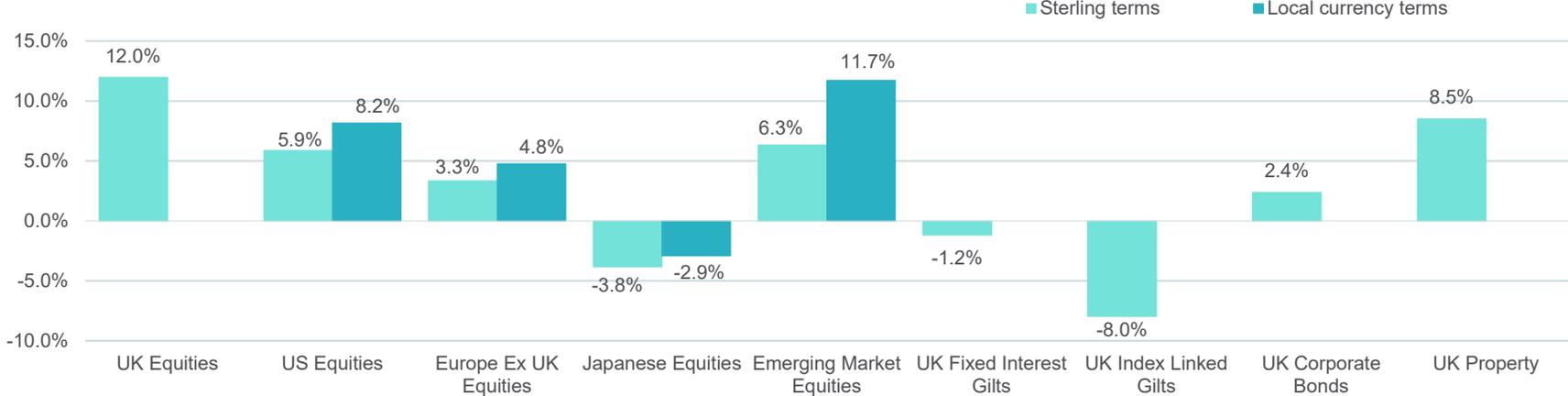
Gilts

The UK nominal gilt curve shifted downwards towards the shorter end but rose towards the longer end of the curve. The 10-year nominal bond yield rose by 0.10% to 4.77%, and the 30-year nominal bond yield rose by 0.20% to 5.48%.

The index-linked gilt yield curve mostly shifted upwards over the quarter as yields rose (except for the three-to-six-year maturities, where it fell). Breakeven inflation mostly fell except at the three-to-five-year maturities, where it rose. The 10-year breakeven inflation rate fell by 0.04% to 3.51%.

Market Background 12 month

Index returns from 29/03/2024 to 31/03/2025



Equities

Global equity markets rose over the last twelve months. The MSCI ACWI rose 7.9% in local currency and 5.3% in sterling terms, with sterling generally appreciating against other major global currencies. Inflation remained rangebound across developed nations, with the global economy proving to be more resilient than previously anticipated.

Bonds

The UK credit market performed positively 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, narrowed slightly by 0.6% to 1.02%. The index rose 2.4% over the year.

Gilts

The UK nominal gilt curve mostly shifted upwards over the year, with yields rising across maturities, except for the short-term maturities where it fell. The 10-year nominal bond yield rose by 0.80% to 4.77%. Overall, according to FTSE All-Stocks indices, UK fixed-interest gilts fell by 1.2% and index-linked gilts fell by 8.0% over the last twelve months.

Quarterly Investment Outlook – May 2025*

- “Going global” for both equities and credit has served UK investors well over the last 16 years, reducing exposure to a relatively weak UK economic and market performance. However, with the share of U.S. equity markets around 70% of MSCI World index, are investors taking too much U.S. focused risk?
- U.S. companies tend to be higher “quality” in that they on average have higher returns on equity, and better free cashflow generation. This has meant that they have traded at increasing valuation premiums to the rest of the world, but that valuation premium has, at least historically, ended up being more than justified given subsequent outperformance. The U.S. is still at the cutting edge of digital technologies which are poised to transform the global economy, so we can’t rule-out that trend continuing but robust economic institutions and an ability to attract the best talent from across the world has been a key pillar of that leadership. This is not assured to be true in the future.
- Underpinning our confidence in investors going global was a rules-based global order. Risks of expropriation in developed markets were trivial. The UK’s tax treaties have meant that withholding taxes were not a major issue. Deglobalisation of trade could evolve into deglobalisation of capital markets, and whilst unfair treatment of overseas investors in developed markets like the U.S. remains a tail risk, we think together with UK government incentives to invest at home, it may make sense for investors to increasingly switch to having a home bias in most asset classes.
- Our base case is that a full-on global recession is avoided (with the National Bureau of Economic Research not declaring a U.S. recession) but recession risks are growing. Noisy economic data as a result of rushed orders ahead of U.S. tariff increases and increased uncertainty halting capex decisions means that the global economy is in a state of flux with hard data difficult to interpret.
- Spreads on securitised credit, such as asset backed securities (ABS), had started to look slightly compressed relative to traditional corporate bonds at the start of the year but we think relative value has reasserted itself.

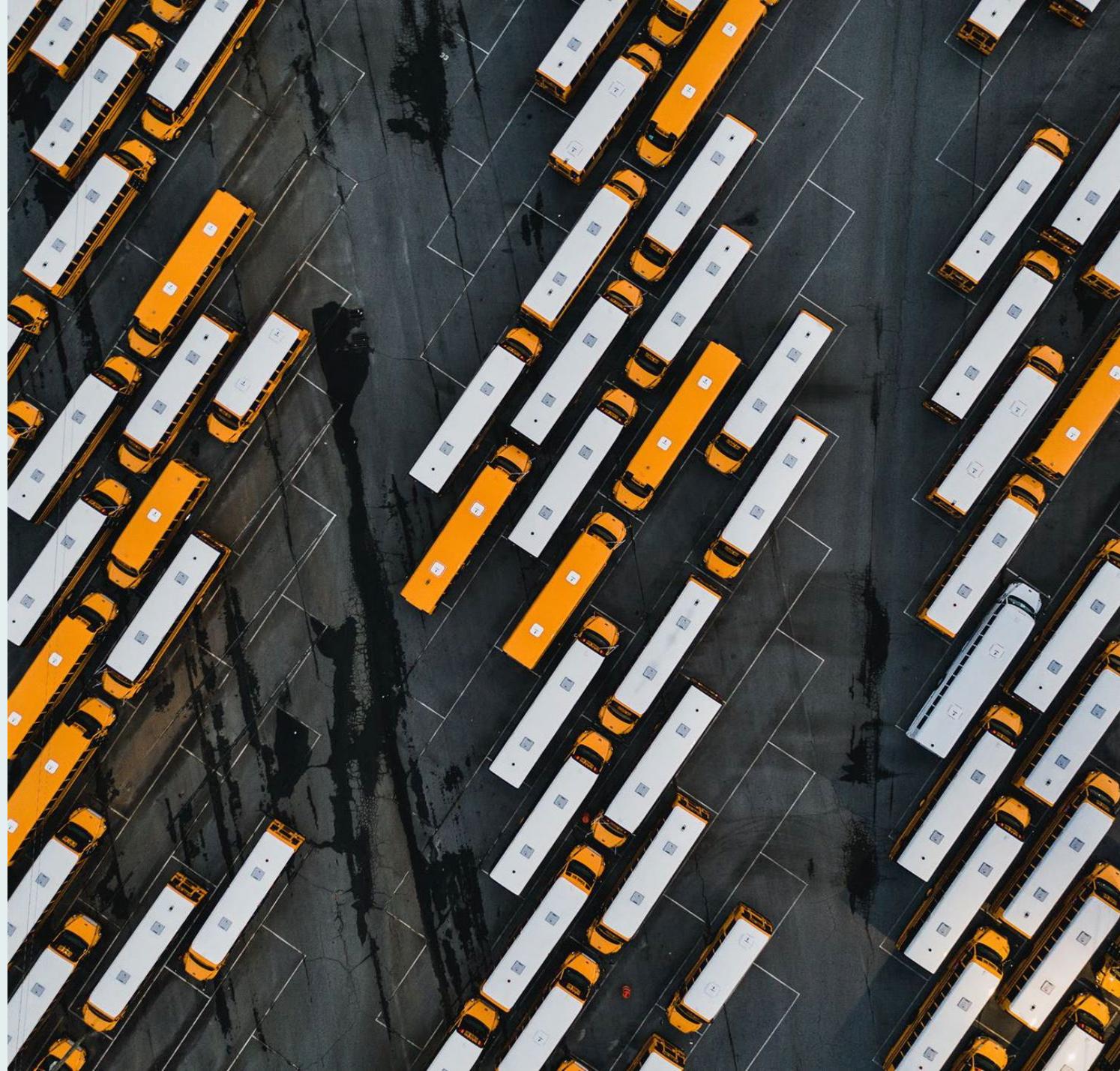
Note: *The opinions referenced are as of the date of publication (1 May 2025) and are subject to change due to changes in the market or economic conditions and may not necessarily come to pass. Information contained herein is for informational purposes only and should not be considered investment advice.

6

Manager review

Aon ratings and understanding
manager performance

AON



Baillie Gifford - LTGG

Fund performance & benchmark



Performance

- The strategy underperformed over the first quarter.
- The largest contributors to performance were Spotify, Sea Limited, and PDD Holdings.
- Regarding Spotify, the share price rose by approximately 20%, driven by continued double-digit growth of paid subscribers and cost-cutting measures that expanded margins. 2024 marked Spotify's first full year of profitability since its founding in 2006.
- Sea Limited contributed positively as the share price increased by over 20%, with the company reporting nearly 25% year-on-year revenue growth. Its e-commerce segment delivered its first full year of profitability in 2024.
- PDD Holdings delivered a share price performance of around 25%, with its core business in China winning market share despite competition, and its international business Temu expanding overseas.
- The largest detractors to performance were The Trade Desk, e.l.f. Beauty, and Tesla.

Buy

Reviewed: April 2025

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.

Baillie Gifford – LTGG (cont.)

Performance (cont.)

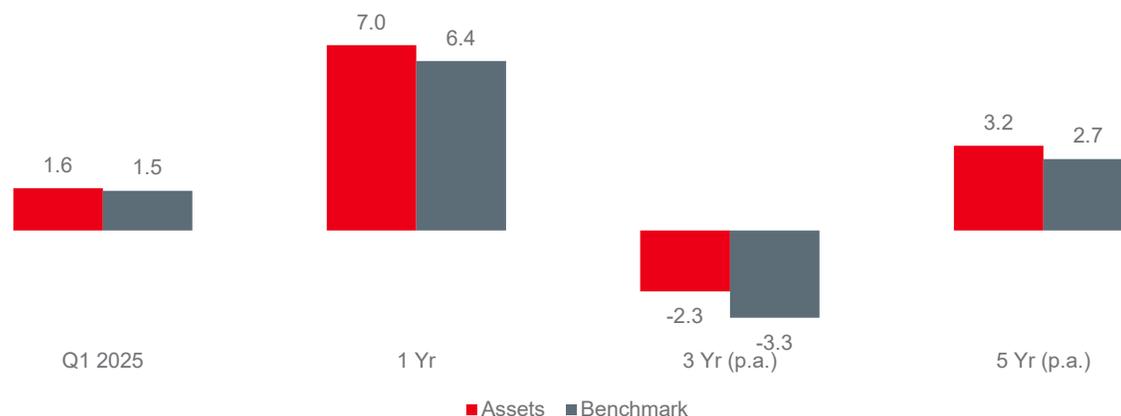
- The Trade Desk reported its first miss on revenue and earnings guidance, leading to a significant share price drop. The company continues to grow revenues in excess of 20% p.a., and management remains confident in the long-term potential.
- e.l.f. Beauty suffered an aggressive share price fall, reflecting weak US consumer sentiment. Despite this, the company reported sales growth in excess of 30% year-on-year.
- Tesla suffered a share price drawdown of roughly 30%, with revenue growth remaining lacklustre and earnings declining year-on-year. Baillie Gifford highlights that the company faces intensifying competition and challenges in its non-auto manufacturing revenue streams.

Positioning and Transactions

- During the period, the team sold Moderna, Advanced Micro Devices (AMD), and Tesla.
- Moderna was sold due to disappointing performance in its RSV product and Covid vaccine uptake, leading to increased downside risk and balance sheet weakness.
- Advanced Micro Devices (AMD) was sold due to intensified competition in AI inferencing and a shift in the investment thesis.
- Tesla was sold due to Musk's focus shifting away from the core car business and potential tarnishing of the brand.
- A new position was initiated in TSMC. The team are attracted by its dominant position in manufacturing silicon wafers for advanced logic chips and its long-term growth potential in the AI supply chain.
- The strategy remains concentrated (40 holdings), with significant exposure to tech-related businesses.

LGIM – Managed Property Fund

Fund performance & benchmark



Buy

Reviewed: Q4 2024

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 over three year rolling periods.

Monitoring comments (Q4 2024)

- As of Q4 2024, the Fund was overweight to the alternatives sector compared to the benchmark (18.4% vs 13.1%) and had a strong cash position (7.9% vs 7.8%). Compared to the benchmark, the Fund is underweight to industrial (36.3% vs 40.7%) and retail (18.4% vs 18.9%) sectors and underweight to offices (19.1% vs 19.5%). At a property level, performance was positive across all sectors over the quarter, with asset management wins delivering £24 million in value uplift. In overall terms, these sector positions have been broadly neutral relative to the benchmark over the last 12 months the only key detractor being the retail holdings, however retail is expected to outperform over the short term. Over the last 12 months, Industrial and living sectors have been the main driver of returns, whilst offices remain a detractor. Cash has been accretive to returns over the last 24 months, although we expect this to reverse as and when property returns increase, thus a falling cash balance in line with the benchmark is seen as a positive.
- The Fund continues to benefit from a large amount of DC pension inflows. Overall, c.80% of the Fund is Defined Contribution ('DC') capital. The manager has highlighted that the office exposure will be further reduced through strategic sales outside core locations where the manager expects further valuation falls and weakening occupier demand. Moreover, despite the manager's cautious outlook on retail, especially high street and shopping centres, the manager remains positive on retail warehousing, which continues to improve with strong rental growth. The manager also has a positive view on leisure assets, especially those located in core locations, with the Fund gaining exposure through the LGIM Leisure Fund, improving the Funds' income profile. LGIM forecasts that this segment will outperform All Property over the next 3 years and offers an attractive yield profile, also presenting opportunities for asset management initiatives. The Fund's void rate has marginally dropped since last quarter (11.6% vs 12%). Of this 11.6%, 1.2% relates to strategic void, 1.5% for buildings undergoing refurbishment with 2.7% under offer.

LGIM – Managed Property Fund

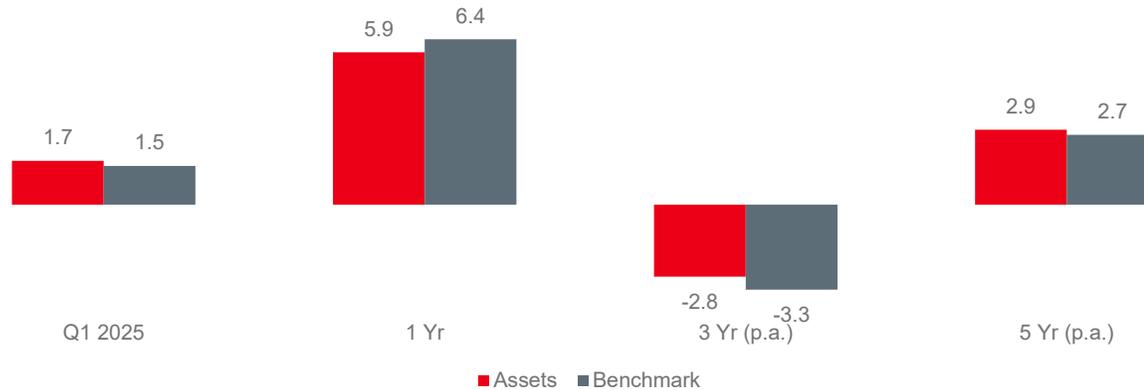
Monitoring comments (Q4 2024) – cont.

Transactions

- As mentioned, the Fund remains highly active in the investment market, completing on 3 acquisitions during the quarter. The Fund has taken a deal-led approach, focused predominantly on value-add and income-led opportunities. The largest purchase over the quarter was of 30 Golden Square, London for £70 million. The asset is a freehold office building comprising 32,492 sq ft, of grade A space in Soho, Central London. The asset underwent a comprehensive back-to-frame refurbishment which completed in December 2023 and is currently on track to achieve Building Research Establishment Environmental Assessment Method ('BREEAM') 'Excellent', EPC A and zero emission aligned with UKGBC net zero. The manager is forecasting an IRR of 8% over 5 years.

Threadneedle – TPEN

Fund performance & benchmark



Buy

Reviewed: Q4 2024

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%.

Monitoring comments (Q4 2024)

- The Fund continues to have an overweight position to industrials, with 49.0% of the portfolio invested in the sector versus the benchmark at 39.1%. The Fund remains marginally underweight to the retail sector at 18.5%, albeit with an overweight position to retail warehouses (15.6% versus 12.0%). The Manager believes that the retail warehouse subsector will continue to see rental growth and an improvement in pricing this year, following strong demand and some further yield compression, the Manager believes this sector will continue to positively contribute to future performance. The Fund would also like to develop an exposure to the residential sector during 2025 as there is a lack of supply in the Purpose-Built Student Accommodation ('PBSA') subsector which should drive returns.
- Rent collection for Q4 2024 stands at 99%, increasing from the previous quarter (Q3 2024) where rent collection was 94.5%. The Fund continues to work with occupiers on a case-by-case basis to agree appropriate strategies for rent collection. Over the course of 2024, the Fund completed a combined total of 147 lettings and renewals, generating £11.6 million per annum. Additionally, the Fund completed 43 rent reviews which has resulted in a £1.1 million per annum increase.
- The Manager believes that that total return for CY2025 will be 7-8%, with approximately 5% income growth and 2-3% capital appreciation. The Manager believes this will come from rental growth in the industrial, living and retail warehouse sectors.

Threadneedle – TPEN

Monitoring comments (Q4 2024) – cont.

Transactions

- There were no purchases to report over the quarter. The Fund made four strategic asset sales with total sale proceeds of £20.8 million. The Fund sold Mercury Park, High Wycombe (office) for £11.9 million, reflecting a net initial yield of 10.1%. Additionally, the Fund sold 610 Centennial Park (office) for £3.1 million. The Fund sold Broadway, Wood Green (unit shop) for £4.7 million. Lastly, the Fund sold Equity House, Wellingborough (office) for £1.4 million. In total over the CY2024, the Fund disposed of 13 assets generating £60.2 million to cover redemptions and to reposition the portfolio towards higher conviction sectors.

BCPP – Quarterly high-level monitoring (Q1 2025)

Changes to views of External and Internal Managers

BCPP Global Equity Alpha

- Loomis Sayles: In October 2024, the manager was given notice that BCPP will be closing the mandate. The mandate was redeemed over the quarter, and reinvested in the new growth mandates with Jennison Associates and Baillie Gifford. The new mandates were funded from the Loomis Sayles redemption, and a reduction in the allocation to value managers Harris Associates and Ninety-One Value.
- Lindsell Train & Ninety-One Franchise: The managers were added to the watchlist on the 4 December 2024. The managers have underperformed over a prolonged period of time against both the primary and style benchmarks. The managers are being assessed as part of a holistic evaluation of the Fund's exposure to quality managers.

BCPP UK Equity Alpha

- Janus Henderson: The manager was placed on the Watchlist due to Neil Hermon stepping away as the lead portfolio manager, pending his retirement (September 2025).

Border to Coast Pensions Partnership – RI Quarterly Report Snapshot

UK Equity Alpha Fund

Fund	Q1 2025 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
UK Equity Alpha	40.5	8.0
Benchmark (FTSE All Share)	79.2	7.7

Global Equity Alpha Fund

Fund	Q1 2025 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Global Equity Alpha	26.5	6.8
Benchmark (MSCI ACWI)	113.7	6.7

Sterling Investment Grade Credit Fund

Fund	Q1 2025 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Sterling Investment Grade Credit	52.3	7.3
Benchmark (iBoxx Sterling Non Gilt Index)	58.3	7.5

Listed Alternatives Fund

Fund	Q1 2025 Position	
	Weighted Average Carbon Intensity	Weighted ESG Score
Listed Alternatives	145.4	7.3
Benchmark (MSCI ACWI)	113.7	6.7

¹This disclosure was developed using information from MSCI ESG Research LLC or its affiliates or information providers. Although Border to Coast information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the “ESG Parties”), obtain information (the “Information”) from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form* and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

*In accordance with the Licence Agreement between Border to Coast Pensions Partnership Limited and MSCI ESG Research (UK) Limited

7

Further information

Key reference information about your Fund

AON



Strategic asset allocation

	Asset group	Strategy for Assets supporting the Liabilities	Surplus assets	Overall Strategy
Equities	Equity	45%	-	39%
	Infrastructure	15%	15%	15%
Private markets	Property	5%	-	4.25%
	Private Credit	7.5%	35%	11%
Bonds & Cash	Non-investment grade credit	5%	5%	5.25%
	Investment grade credit	7.5%	10%	8%
	Index linked gilts	15.0%	35%	17.5%

Note: Overall strategy assuming split between 87% 'Strategy for Assets supporting the Liabilities'; and 13% 'surplus assets'

Asset Allocation – Q1 2025

Detailing ‘Strategy for Assets supporting the Liabilities’ and ‘Surplus Assets’

Asset Group	Manager	31 March 2025					Possible action
		Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	
Strategy for Assets supporting the Liabilities		4,112.7	87.1%	87.0%	0.1%		
Equities		1,932.5	40.9%	39%	1.9%		
	BCPP Global Equity	1,394.9	29.5%				
	Baillie Gifford LTGG	537.6	11.4%				
Property		200.7	4.25%	4.25%	0.00%		
	L&G	32.9	0.7%				
	Threadneedle	167.8	3.6%				
Infrastructure		613.8	13.0%	13.0%	0.0%		
	BCPP Infrastructure	404.9	8.6%				
	BCPP Listed Alts	127.6	2.7%				
	BCPP Climate Opportunities	77.6	1.6%				
	BCPP UK Opportunities	3.7	0.1%				

Asset Allocation – Q1 2025 (cont'd)

Detailing 'Strategy for Assets supporting the Liabilities' and 'Surplus Assets'

Asset Group	Manager	31 March 2025				Possible action
		Valuation (£m)	Current allocation	Long-term strategy	Difference	
Private Credit		220.6	4.7%	6.5%	-1.8%	
	BCPP Private Credit	194.4	4.1%			
	Arcmont	19.4	0.4%			
	Permira	6.8	0.1%			
Non-Investment Grade Credit		224.3	4.75%	4.75%	0.00%	
	BCPP Multi Asset Credit	224.3	4.75%			
Investment Grade Credit		306.9	6.5%	6.5%	0.0%	
	BCPP Investment Grade Credit	306.9	6.5%			
Gilts		613.8	13.0%	13.0%	0.0%	
	BCPP Index Linked Bonds	613.8	13.0%			

Asset Allocation – Q1 2025 (cont'd)

Detailing 'Strategy for Assets supporting the Liabilities' and 'Surplus Assets'

Asset Group	Manager	31 March 2025					
		Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	Possible action
Surplus Assets		609.1	12.9%	13.0%	-0.1%		
Equities		112.3	2.4%	0.0%	2.4%		
	BCPP UK Equity	112.3	2.4%				
Property		90.9	1.9%	0.0%	1.9%		
	L&G	14.9	0.3%				
	Threadneedle	76.0	1.6%				
Infrastructure		159.2	3.4%	2.0%	1.4%		
	BCPP Listed Alts	159.2	3.4%				
Private Credit		0.0	0.0%	4.5%	-4.5%		
	BCPP Private Credit	0.0	0.0%				
Non-Investment Grade Credit		34.5	0.7%	0.5%	0.2%		
	BCPP Multi Asset Credit	34.5	0.7%				

Asset Allocation – Q1 2025 (cont'd)

Detailing 'Strategy for Assets supporting the Liabilities' and 'Surplus Assets'

Asset Group	Manager	31 March 2025					
		Valuation (£m)	Current allocation	Long-term strategy	Difference	Rebalancing Range	Possible action
Investment Grade Credit		60.4	1.3%	1.5%	-0.2%		
	BCPP Investment Grade Credit	60.4	1.3%				
Gilts		82.3	1.7%	4.5%	-2.8%		
	BCPP Index Linked Bonds	82.3	1.7%				
Cash		69.6	1.5%	0.0%	1.5%		
	Internal Cash	69.6	1.5%				
Total assets		4,721.8	100.0%	100.0%			

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

ODD

Operational Due Diligence (“ODD”)

The ODD factor is assigned a rating. The table below describes what these ratings mean.

Please note: Operational due diligence inputs provided to the research team by Aon’s Operational Risk Solutions and Analytics Group (ORSA). ORSA is an independent entity from Aon Solutions UK Limited, Aon Hewitt Investment Consulting, Inc., and Aon Hewitt Inc./Aon Hewitt Investment Management Inc. Investment advice is provided by these Aon entities.

Overall ODD Rating	What does this mean?
A1 Pass	No material operational concerns – the firm’s operations largely align with a well-controlled operating environment.
A2 Pass	The firm’s operations largely align with a well-controlled operating environment, with limited exceptions – managers may be rated within this category due to resource limitations or where isolated areas do not align with best practice.
Conditional Pass (“CP”)	Specific operational concerns noted that the firm has agreed to address in a reasonable timeframe; upon resolution, we will review the firm’s rating.

Explanation of Ratings

Overall Ratings

ESG Factor

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

Overall ESG Rating	What does this mean?
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.
Not Applicable	ESG risks and considerations are not applicable to this strategy, for example, on the grounds of materiality or asset class relevance

Method

Liabilities

This funding update is consistent with the calculations for the formal actuarial valuation 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 results of the formal actuarial valuation at 31 March 2022 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:

- Known fund returns provided; and
- 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 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.

Assets

For the purpose of this funding update, we have used an unaudited value of the assets at 31 March 2025 as provided by the Administering Authority.

Contributions

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.

Assumptions

	Discount rate (Ongoing/Low Risk)	Pay growth (Ongoing/Low Risk)	Pension increases (Ongoing/Low Risk)
31 March 2022	4.20% / 1.70%	3.55% / 4.65%	2.30% / 3.40%*
31 December 2024	4.80% / 4.80%	3.35% / 4.15%	2.10% / 2.90%
31 March 2025**	5.05% / 5.00%	3.35% / 4.15%	2.10% / 2.90%

* Plus an allowance for short term inflationary increases

** For the assumptions as at 31 March 2025 we have allowed for the updated long term investment strategy for assets supporting the liabilities as recently approved by the Pensions Committee

Risk/Return Assumptions



- The table to the right sets out the 10-year median returns and volatility assumptions in absolute terms used in the modelling.
- Assumptions are based on Aon's Capital Market Assumptions as at 31 March 2025
- Allocations modelled are those set out in the main body of this presentation. Allocations are assumed to be annually rebalanced.
- Allowance for active management is made in some of the assets classes, in particular where there is no real passive version of the asset, for example private equity funds.
- Unless stated otherwise, all returns are net of underlying manager fees.

High level asset class	Expected Return	Expected Volatility
Equities	7.1%	19.1%
Global equities	7.1%	19.5%
Property	6.4%	12.6%
Infrastructure	9.4%	16.4%
Listed alternatives	7.1%	19.5%
Climate opportunities	9.4%	16.3%
UK opportunities	8.5%	9.6%
Illiquid credit	7.9%	7.7%
Investment grade credit	6.0%	10.2%
Non-investment grade credit	6.7%	8.7%
Absolute Return	7.8%	5.4%
Gilts	4.8%	9.7%
Cash	4.1%	1.2%

Correlation Table

High level asset class	Equities	Global Equity	Property	Infrastructure	Listed Alternatives	Climate Opportunities	UK Opportunities	Illiquid credit	IG Credit	Non-IG Credit	Absolute Return	Gilts	Cash
Equities	100%	100%	34%	60%	100%	60%	67%	19%	5%	53%	21%	-7%	-2%
Global Equity		100%	34%	61%	100%	61%	67%	19%	5%	52%	21%	-6%	-3%
Property			100%	18%	34%	18%	60%	19%	4%	25%	7%	-1%	6%
Infrastructure				100%	61%	100%	70%	9%	2%	21%	20%	-3%	0%
Listed Alternatives					100%	61%	67%	19%	5%	52%	21%	-6%	-3%
Climate opportunities						100%	71%	9%	3%	22%	20%	-3%	0%
UK opportunities							100%	36%	24%	43%	20%	3%	9%
Illiquid credit								100%	66%	62%	14%	4%	14%
IG Credit									100%	33%	17%	47%	36%
Non-IG Credit										100%	20%	1%	9%
Absolute Return											100%	9%	29%
Gilts												100%	29%
Cash													100%

Data and assumptions

Date of calculation	31 March 2025
Number of simulations	5000
Time horizon	10 years
Asset value	£ 4,721.8M

- 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).
- Climate Opportunities has been modelled as 60% US and 40% Euro Infrastructure.
- UK Opportunities has been modelled as 30% UK property, 30% Euro Infrastructure, 15% private equity, 15% direct lending and 10% UK corporate bonds (A-rated with average duration of 10 years)
- 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 Global Equities which make up 39% 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 (current) have been modelled using region splits in line with the current allocation:

Passive UK Equity	5.5%
Passive Global Equity (including Emerging Markets)	94.5%

Purpose, key assumptions and judgements of the model

The purpose of this analysis is to consider and monitor the return and risk characteristics of the current and long term investment strategy of the Fund. The key assumptions and judgements of the model are set out below and we believe are reasonable for the intended purpose.

- The calculation considers (5000 stochastic) simulations of annual absolute returns over the period modelled. The simulations are constructed using Aon's Stochastic Asset Model, further details and assumptions are outlined in this appendix.
- A liability proxy is not considered.
- Allocations are assumed to be annually rebalanced, in practice this may not always be possible for illiquid assets.
- The calculations do not take into account any cashflows payable.

Limitations

Material risks to the Fund include covenant, longevity, market, inflation, contributions, expenses and liquidity.

- Our stochastic scenarios include market risk only, and this risk is present in the distribution of returns and is reflected in the risk metrics shown. Market risk has been calculated on an asset only basis.
- This modelling does not cover liability basis, inflation, covenant, longevity, contributions, expenses and liquidity risk. When using the modelling analysis, the user should consider how these risks apply and whether they are material to the decisions under consideration.

There are other factors that could materially affect the Fund's funding and strategy decisions, or the exposure or realisation of the risks above:

- These other factors include external factors such as climate change or political, regulatory and legislative change.
- The general risk factors of economic or technological change are reflected in our economic assumptions and the prevalence of extreme events in our economic model, but not all specific risks can be captured (e.g. disruptions to the financial system, or technological change leading to improvements in longevity).
- There are other risks to which the Fund is exposed that we assume are not material to long-term funding and investment strategy decisions, such as timing of member options or operational risks

Limitations (continued)

There are necessarily some limitations associated with the stochastic scenarios calibrated to Aon's Capital Market Assumptions used for asset-liability modelling.

- CMAs and asset-liability modelling. Asset-liability projections rely on views of the future and whilst median projections are our Aon-house views (intended to reflect no bias), we do not know what will materialise in practice (for example it cannot be predicted exactly how the equity market and bond market will develop over the next year). To help build up a more complete picture of possible outcomes, we project assets and liabilities stochastically with the aim of capturing the uncertainty associated with the projections. This approach is designed to be coherent with each asset being calibrated to target a CMA median return, volatility and set of interdependencies (correlations) assumptions. Nevertheless, there remain some limitations, including but not limited to those set out below.
- Whilst Aon's CMA assumptions are supported by historical data, current financial market prices and expert views there are necessary some limitations in the analysis, including, but not limited to, the following:
 - Long-term versus short-term. The stochastic scenario calibration primarily seeks to capture a realistic long-term distribution of outcomes but is also mindful of short-term risk behaviours. These, sometimes competing, objectives can lead to some trade-offs within stochastic scenario calibration and the requirement for significant expert judgement. Where significant focus is applied to an individual asset class, particularly for more extreme outcomes, the user should bear this limitation in mind, and/or may wish to consider the use of deterministic scenarios.
 - Only 5,000 scenarios are produced. There is necessarily a trade-off between running more scenarios and spurious accuracy. Notably as you approach extreme tails, i.e., 1-200 this is an area of the distributions where there is insufficient market information to apply rigorous statistical analysis to explicitly calibrate models to, as such seeking to define the model outcome with a high degree of confidence is to some extent spurious and will be heavily driven by model selection.
 - Data used for the CMAs may be limited and/or be subject to interpretation for relevance today. The issues that arise from a lack of or poor historical data may be compounded by changing context. For example, for part of the last 100 years the UK was either on the gold standard or a quasi-gold standard, which is a very different economic framework than floating currencies. This obviously creates significant issues for the relevance of any cash rate and bond yield data.
 - Defined randomness rather than chaotic behaviour. The model, by necessity, assumes an underlying distribution of returns and yields. This presumes the underlying asset returns are random in nature rather than deterministic and chaotic. In a deterministic and/or chaotic framework the concept of a 1-in-X event has no meaning and so is not used in this modelling.
 - Some extreme events are not modelled. Our model is built on the premise that the current monetary and political framework will continue and presumes that there will not be a breakdown of civil order, a major natural disaster, UK government default or a significant global armed conflict. We view these risks as being outside the typical use case, however where very extreme scenarios are considered these may be relevant and should be addressed through deterministic scenario analysis.
 - Unknown unknowns. The model deals with known risks and therefore does not allow for "black swan events" or "unknown unknowns", while our model does have fat tails, it is not possible to fully allow for these types of unknown risks.
 - Volatilities and correlations. Volatility and the correlation of assets are only observable after the fact and can change over time. Within the stochastic scenario calibration, volatility and correlations vary for each of 5,000 scenarios, with the distribution of outcomes largely a function of the chosen economic models and the median long-term volatility and correlation targets. Some correlation behaviour is introduced in the tails e.g., large equity falls with more downward credit transitions.

Capital Market Assumptions

Aon's Capital Market Assumptions (CMAs) are our asset class return, volatility, and correlation assumptions. The return assumptions are "best estimates" of annualised returns. Below we set out the key features and approach taken in setting these assumptions.

- Aon's CMAs. Market risk is the primary risk considered as part of the CMA setting process.
 - The return assumptions are Aon's "best estimate" returns, with the uncertainty around the expected return represented by the volatility (annualised standard deviation of returns over the projection period) assumptions. Correlation assumptions allow for the interconnectedness of the risks facing different asset classes.
 - By 'best estimate' we specifically refer to the median annualised return. That is, there is a 50/50 chance that outcomes will be above or below the assumptions.
 - Assumptions are set by Aon's Global Asset Allocation Team and represent the long-term (10 and 30 year) market outlook.
 - Our long-term assumptions are based on historical results, current market characteristics, our professional judgment, and forward-looking consensus views.
- Consideration of other approaches. Alternative approaches include using generalized global models, such as the Capital Asset Pricing Model (CAPM) or a fixed risk premia approach, but we believe these approaches over-simplify the analysis and do not capture as much of the intricacies around each asset class.
- Climate risks. We consider the impacts of climate change when setting our assumptions. Making direct adjustments is challenging and subject to a high degree of subjectivity, as climate change effects are extremely 'non-linear'. Aon's capital market assumptions (CMAs) are based on long-term consensus views of what is priced into the market, and therefore indirectly capture the climate risk that is currently captured in current market conditions. A separate range of deterministic scenarios focusing on climate change scenarios can be used to inform and help aid decisions.
- Other risks. The effects of other internal or external environmental factors, such as technological, economic, political and geopolitical, regulatory and legislative changes, are also indirectly captured, in consensus views on the economic outlook and market pricing, which feed into our return assumptions.

Aon's Stochastic Scenario Generator (SSG) Model

Aon's Stochastic Scenario Generator (SSG) Model is a set of 5,000 stochastic scenarios, calibrated quarterly to Aon's Capital Market Assumptions. These stochastic scenarios can be used to evaluate the risk and return characteristics of a Fund's assets versus its liabilities.

Asset-liability modelling

- Stochastic scenarios. Aon's Capital Market Assumptions CMAs are used as targets to calibrate a set (typically 5,000) of stochastic scenarios for each economic variable. This allows us to perform stochastic asset-liability studies i.e. project portfolios of assets and liabilities many times into the future, building up a coherent picture of possible outcomes. Allowing for the interactions of asset and liabilities stochastically impacts median outcomes and enables percentile outcomes and probabilistic metrics to be considered.
- Consistent framework. All the major markets and asset classes are modelled within a consistent framework allowing for the interactions between them to be properly taken into account.
- Model choice. When setting assumptions, we have opted to use different economic models for different asset classes (listed on this slide), as we believe this would be the best way to capture the specific characteristics associated with each asset class.

Key economic models used

- Nominal yields are modelled using an extended displaced Black-Karasinski model, which enables us to model full yield curves. Yields are positively skewed, and the model can fit the starting curve. In the current calibration, average nominal yields are assumed to broadly follow the market for the first c.20 years of the projections.
- Real yields are modelled using a Hull-White model, this enables us to model unbounded full yield curves. The model can fit the starting curve. In the current calibration, average real yields are assumed to broadly follow the market for the first c.20 years of the projections
- Inflation is taken as the difference between nominal and real short rates, and the positive skew of the nominal yield model ensures realised inflation is positively skewed. For realised inflation a 'surprise' element is allowed for making inflation more volatile than purely predicted by the short rates.
- Investment grade corporate bonds are modelled using an extended Jarrow-Lando-Turnbull framework which assumes bonds can be modelled based on their credit rating and anticipated cashflows. This ensures positive credit spreads with positive skew and ratings transitions which broadly reflect historically observed transitions.
- Return-seeking assets are modelled using exposures to factors, where each factor can contain stochastic volatility and/or jump diffusion process. This gives the flexibility to capture more complex tail behaviour than is typically observed in simpler log-normal models.
- Other assets generally use outputs from the models above and exposure to some degree of idiosyncratic element in order to capture desired properties for the asset being considered.

TAS compliance

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

This document has been requested by the Administering Authority. It has been prepared under the terms of the Agreement between the North Yorkshire 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: General Actuarial Standards' ('TAS 100') (updated July 2023).

The compliance is on the basis that North Yorkshire 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 document should be read in conjunction with:

- The report on the most recent actuarial valuation of the Fund as at 31 March 2022.
- The latest Funding Strategy Statement.

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

Third Party Disclaimers

Page 1

	Notes
Source: Bloomberg	BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, "Barclays"), used under license. Bloomberg or Bloomberg's licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.
Source: Credit Suisse	The CS indices are the exclusive property of and currently sponsored by CS as Index Creator which has contracted with the relevant Index Calculation Agent to maintain and calculate the CS indices. Neither the Index Creator nor the relevant Index Calculation Agent has any obligation to take the needs of any person into consideration in composing, determining or calculating the CS Indices (or causing the CS Indices to be calculated). In addition, neither the Index Creator nor the Index Calculation Agent makes any warranty or representation whatsoever, express or implied, as to the results to be obtained from the use of the CS Indices and/or the level at which any of the CS Indices stands at any particular time on any particular day or otherwise, and neither the Index Creator nor the relevant Index Calculation Agent shall be liable, whether in negligence or otherwise, to any person for any errors or omissions in the Index or in the calculation of the Index or under any obligation to advise any person of any errors or omissions therein.
Source: European Money Markets Institute	The Euribor benchmark is created by the European Money Markets Institute a.i.s.b.l. (EMMI). Euribor® is a registered trademark of EMMI. A licensing agreement with EMMI is mandatory for all commercial use of the registered trademark Euribor®. This report is not authorised by, licensed by or affiliated in any way with EMMI. EMMI declines all responsibility for the information within this report, including without limitation the completeness or the accuracy of the Euribor benchmark data
Source: FTSE Russell	Source: London Stock Exchange Group plc and its group undertakings (collectively, the "LSE Group"). © LSE Group 2020. FTSE Russell is a trading name of certain of the LSE Group companies. "FTSE®" "Russell®", "FTSE Russell®", "MTS®", "FTSE4Good®", "ICB®", "Mergent®, The Yield Book®," are trade marks of the relevant LSE Group companies and are used by any other LSE Group company under license. All rights in the FTSE Russell indexes or data vest in the relevant LSE Group company which owns the index or the data. Neither LSE Group nor its licensors accept any liability for any errors or omissions in the indexes or data and no party may rely on any indexes or data contained in this communication. No further distribution of data from the LSE Group is permitted without the relevant LSE Group company's express written consent. The LSE Group does not promote, sponsor or endorse the content of this communication.

Third Party Disclaimers

Page 2

	Notes
Source: Hedge Fund Research, Inc. www.hedgefundresearch.com	The Hedge Fund Research indices used are being used under license from Hedge Fund Research, Inc., which does not approve of or endorse the contents of this report.
Source: ICE Data Indices, LLC ("ICE Data"), is used with permission	ICE® is a registered trademark of ice data or its affiliates and Bofa® is a registered trademark of Bank of America corporation licensed by Bank of America Corporation and its affiliates ("BOFA") and may not be used without BOFA's prior written approval. Ice data, its affiliates and their respective third party suppliers disclaim any and all warranties and representations, express and/or implied, including any warranties of merchantability or fitness for a particular purpose or use, including the indices, index data and any data included in, related to, or derived therefrom. Neither v.6 071320 ice data, its affiliates nor their respective third party suppliers shall be subject to any damages or liability with respect to the adequacy, accuracy, timeliness or completeness of the indices or the index data or any component thereof, and the indices and index data and all components thereof are provided on an "as is" basis and your use is at your own risk. Ice data, its affiliates and their respective third party suppliers do not sponsor, endorse, or recommend Aon, or any of its products or services
Source: IHS Markit	<p>Neither Markit, its Affiliates nor any third party data provider makes any warranty, express or implied, as to the accuracy, completeness or timeliness of the data contained herewith nor as to the results to be obtained by recipients of the data. Neither Markit, its Affiliates nor any data provider shall in any way be liable to any recipient of the data for any inaccuracies, errors or omissions in the Markit data, regardless of cause, or for any damages (whether direct or indirect) resulting there from.</p> <p>Opinions, estimates and projections in this report do not reflect the opinions of Markit Indices and its Affiliates. Markit has no obligation to update, modify or amend this report or to otherwise notify a reader thereof in the event that any matter stated herein, or any opinion, projection, forecast or estimate set forth herein, changes or subsequently becomes inaccurate.</p> <p>Without limiting the foregoing, Markit, its Affiliates, or any third party data provider shall have no liability whatsoever to you, whether in contract (including under an indemnity), in tort (including negligence), under a warranty, under statute or otherwise, in respect of any loss or damage suffered by you as a result of or in connection with any opinions, recommendations, forecasts, judgments, or any other conclusions, or any course of action determined, by you or any third party, whether or not based on the content, information or materials contained herein.</p> <p>Copyright © 2021, Markit Indices Limited.</p>

Third Party Disclaimers

Page 3

	Notes
Source: MSCI	Although Aon's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness of any data herein. None of the ESG Parties makes any express or implied warranties of any kind, and the ESG Parties hereby expressly disclaim all warranties of merchantability and fitness for a particular purpose, with respect to any data herein. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein. Further, without limiting any of the foregoing, in no event shall any of the ESG Parties have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages
Source: MSCI Equity Indices	The MSCI information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for or a component of any financial instruments or products or indices. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each other person involved in or related to compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including, without limitation, lost profits) or any other damages. (www.msci.com)

Third Party Disclaimers

Page 4

	Notes
Source: New York Fed	Subject to New York Fed Terms of Use for Select Rate Data .
Source: SONIA data contains public sector information licensed under the Open Government Licence v3.0 .	<p>SONIA data is licensed 'as is' and the Information Provider and/or Licensor excludes all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law.</p> <p>The Information Provider and/or Licensor are not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its use. The Information Provider does not guarantee the continued supply of the Information.</p>
Source: IPD	IPD data was used for benchmarking purposes, but the fund performance was not calculated by IPD.
Source: J.P. Morgan	Information has been obtained from sources believed to be reliable but J.P. Morgan does not warrant its completeness or accuracy. The index level data is used with permission. The index level data may not be copied, used, or distributed without J.P. Morgan's prior written approval. Copyright 2021, JPMorgan Chase & Co. All rights reserved.

Disclaimer:

In preparing this document we may have relied upon data supplied to us by third parties. We cannot be held accountable for any error, omission or misrepresentation of any data provided to us by such third parties (including those that are the subject of due diligence). Information in this document containing any historical information, case studies, data or analysis should not be taken as an indication or guarantee of any future performance, results, analysis, forecast or prediction. Past performance does not guarantee future results. Aon is not providing legal, financial, tax, accounting or audit advice under this document or otherwise. Should you require advice of this nature, please engage advisers specifically for this purpose.

Notwithstanding the level of skill and care used in conducting due diligence into any organisation that is the subject of a rating in this document, it is not always possible to detect the negligence, fraud, or other misconduct of the organisation being assessed or any weaknesses in that organisation's systems and controls or operations. Any opinions or assumptions in this document have been derived by us through a blend of economic theory, historical analysis and/or other sources. Any opinion or assumption may contain elements of subjective judgement and are not intended to imply, nor should be interpreted as conveying, any form of guarantee or assurance by us of any future performance. Views are derived from our research process and it should be noted in particular that we cannot research legal, regulatory, administrative or accounting procedures and accordingly make no warranty and accept no responsibility for consequences arising from relying on this document in this regard. Calculations may be derived from our proprietary models in use at that time. Models may be based on historical analysis of data and other methodologies and we may have incorporated their subjective judgement to complement such data as is available. It should be noted that models may change over time and they should not be relied upon to capture future uncertainty or events. Some of the statements in these materials may contain or be based on forward looking statements, forecasts, estimates, projections, targets, or prognosis ("forward looking statements"), which reflect our current view of future events, economic developments and financial performance. Such forward looking statements are typically indicated by the use of words which express an estimate, expectation, belief, target or forecast. These forward looking statements contain no representation or warranty of whatever kind that such future events will occur or that they will occur as described herein, or that such results will be achieved, as the occurrence of these events and any results are subject to various risks and uncertainties. Actual results may differ substantially from those assumed in the forward looking statements. We will not undertake to update or review the forward looking statements contained in these materials, whether as a result of new information or any future event or otherwise.

THIS MATERIAL DOES NOT CONSTITUTE AN OFFER OR SOLICITATION OF A FINANCIAL PRODUCT OR FINANCIAL SERVICE IN ANY JURISDICTION WHERE, OR TO ANY PERSON TO WHOM, IT WOULD BE UNAUTHORIZED OR UNLAWFUL TO DO SO. ANY SUCH PROHIBITED OFFER OR SOLICITATION IS VOID AND AON WILL DISREGARD ANY COMMUNICATION RECEIVED IN RESPECT THEREOF.

Aon plc (NYSE: AON) exists to shape decisions for the better – to protect and enrich the lives of people around the world. Through actionable analytic insight, globally integrated Risk Capital and Human Capital expertise, and locally relevant solutions, our colleagues provide clients in over 120 countries with the clarity and confidence to make better risk and people decisions that help protect and grow their businesses.

Copyright © 2025 Aon Investments Limited. All rights reserved. aon.com Aon Investments Limited is authorised and regulated by the Financial Conduct Authority.

Registered in England & Wales No. 05913159. Registered office: The Aon Centre, The Leadenhall Building, 122 Leadenhall Street, London, EC3V 4AN.

The information and opinions contained in this document, enclosures or attachments (this "document") are for general information purposes only and should not be treated as a substitute for specific advice. It is based upon information available to us at the date of this document and takes no account of subsequent developments. Any reliance placed upon information in this document is at the sole discretion of the recipient. Unless we have otherwise agreed with you in writing: (a) we make no warranties, representations or undertakings about any of the content of this document and (b) Aon disclaims, to the maximum extent permissible under applicable law, any and all liability or responsibility for any loss or damage, whether direct, indirect, special, punitive, consequential (including lost profits) or any other loss or damage even if notified of the possibility of such loss or damage, arising from the use of or reliance on this document. In this disclaimer, references to "us", "we" and "Aon" include any Aon colleagues and Scheme Actuaries. To protect the confidential and proprietary information in this document, unless we provide prior written consent no part of this document should be reproduced, distributed, forwarded or communicated to anyone else. We do not accept or assume any duty of care, responsibility or liability whatsoever to any person who receives a copy of this document without our consent.