London Borough of Havering Pension Fund

Q2 2024 Investment Monitoring Report

Shaun Nicol – Investment Consultant

The person responsible for this advice is Shaun Nicol. Members of the London Borough of Havering client team who contributed to the production of this paper but are not responsible for the advice are Meera Devlia and Jennifer Aitken.

Hymans Robertson LLP is a limited liability partnership registered in England and Wales with registered number OC310282. A list of members of Hymans Robertson LLP is available for inspection at One London Wall, London EC2Y 5EA, the firm's registered office. Authorised and regulated by the Financial Conduct Authority and licensed by the Institute and Faculty of Actuaries for a range of investment business activities. Hymans Robertson is a registered trademark of Hymans Robertson LLP.



The tactical benchmark in the Fund Performance table represents the aggregate performance target of the Fund's assets and is a measure of relative outperformance / underperformance from the asset managers.

The strategic benchmark represents the expected rate at which the Fund's liabilities are growing (or falling) in value. The asset performance relative to the strategic benchmark performance gives an indication of whether the funding level has improved or weakened over a given period.

Strategic Overview

Manager Performance

Market Background

Appendix

2

Key Takeaways

	The state of the s
Equities continued to perform positively but lagged behind benchmarks.	 Equities continued to perform well over the quarter and as a result, all the Fund's equity mandates provided positive returns. However, the majority of equity mandates' performance returns were marginally behind their respective benchmarks.
Real gilt yields rose, pushing down expected liability values.	 Real gilt yields rose over the quarter and as such, the Fund's RLAM index-linked gilt mandate slightly decreased in value. The value of the Fund's liabilities is expected to have fallen due to this over the same period (as proxied by the Fund's strategic benchmark).
Overall Fund performance remained positive, but the Fund continued to underperform its tactical benchmark.	 The Fund's performance of 1.3% was slightly behind the tactical benchmark of 2.0% The Fund's equity mandates and LCIV Absolute Return Fund's relative underperformance were key contributors to this.
Positive returns were observed across most of the Fund's real asset and private debt mandates.	 Most mandates are measured relative to cash-plus/inflation-plus comparators, but whilst mandates continued to demonstrate underperformance, most also continued to deliver positive absolute returns. Property capital values modestly increased over the quarter, which meant wider property markets returned positively. The UBS Fund slightly outperformed over the quarter and longer-term returns remain closer to benchmark However, the CBRE Fund underperformed over the quarter and continues to underperform its benchmark over the longer-term.

Fund Performance

	Last 3 months (%)	Last 12 months (%)	Last 3 years (%)	Last 5 years (%)
Total Fund Performance	1.3	8.5	1.7	5.4
Tactical Benchmark	2.0	11.8	6.2	6.9
Strategic Benchmark	-1.7	1.3	-9.8	-4.2

Fund Asset Valuation

	Fund value (£m)
Q1 2024	970.0
Q2 2024	983.7



The Fund's assets returned 1.3% over the quarter, underperforming the benchmark return of 2.0%.

All equity mandates continued to deliver positive absolute returns, amid resilient growth and ongoing optimism for Al. However, the majority of equity mandates were marginally behind respective benchmarks over the quarter.

The LCIV Absolute Return Fund and LCIV Global Bond Fund posted modest positive performance.

Over the quarter, wider property markets returned positively as capital values increased modestly. The Fund's property mandates delivered mixed returns. UBS outperformed owing to its overweight allocation to the retail sector, as capital values in the retail sector improved specifically.

Sub-investment grade credit spreads remained tight however RLAM MAC delivered positive returns, only marginally underperforming its benchmark.

Following a wider review of the Fund's RLAM mandate, post quarter-end the Fund's officers agreed to disaggregate the MAC and ILG components within the mandate structure and update the ILG component benchmark to the FTSE Actuaries UK Index-Linked Gilts All Stocks Index (from the FTSE Actuaries UK Index-Linked Gilts Over 5 Years Index).

Amid robust economic activity and sticky inflation, real gilt yields rose over the quarter. As a result, the RLAM ILG Fund delivered negative returns – also underperforming its benchmark, given its current longer-term positioning.

Strategic Overview

Manager Performance

Market Background

Appendix

Manager Performance

	Actual Proportion	Last		t 3 Months (%)		Last 12 Months (%)		Last 3 Years (% p.a.)		Since Inception (% p.a.)		(% p.a.)	
		Fund	B'mark	Relative	Fund	B'mark	Relative	Fund	B'mark	Relative	Fund	B'mark	Relative
Growth	52.7%												
LGIM Global Equity	4.4%	2.5	2.9	-0.4	19.9	20.4	-0.4	8.9	9.0	-0.2	12.1	12.1	-0.1
LGIM Emerging Markets	4.1%	5.3	5.8	-0.5	13.9	14.5	-0.6	-0.6	-0.2	-0.4	5.1	5.4	-0.3
LGIM Future World Fund	11.1%	1.2	1.4	-0.1	14.6	14.9	-0.2	- 2	020	-	5.5	5.6	-0.1
LCIV Global Alpha Growth Paris Aligned Fund	16.2%	1.3	2.6	-1.2	13.8	20.9	-5.8	-1.7	9.7	-10.4	12.2	12.4	-0.2
LCIV PEPPA Passive Equity	5.9%	3.6	3.5	0.1	24.3	24.0	0.3	- 2	121		8.0	7.0	1.0
LCIV Absolute Return Fund	11.1%	0.4	2.3	-1.8	1.0	9.4	-7.7	0.6	7.0	-5.9	4.3	5.3	-1.0
Income	39.7%												
LCIV Global Bond Fund	4.8%	0.1	0.1	0.0		-		1=	-	::	6.7	8.1	-1.3
UBS Property	5.0%	1.5	1.2	0.3	-1.7	0.1	-1.8	0.3	0.6	-0.3	4.8	5.4	-0.6
CBRE	3.3%	-1.3	2.0	-3.3	-4.8	6.9	-11.0	4.7	11.4	-6.0	4.6	9.1	-4.1
JP Morgan	5.2%	1.3	2.0	-0.7	10.4	6.9	3.2	10.1	11.4	-1.2	8.6	9.1	-0.4
Stafford Capital Global Infrastructure SISF II	4.00/	-1.6	2.0	-3.5	3.2	6.9	-3.5	8.3	11.4	-2.8	7.2	8.9	-1.6
Stafford Capital Global Infrastructure SISF IV	4.6%	1.9	2.0	-0.1	7.6	6.9	0.6	12.7	11.4	1.2	15.6	11.5	3.7
LCIV Renewable Energy Infrastructure Fund	1.6%	0.0	2.0	-2.0	-2.3	6.9	-8.7	1070			10.5	11.6	-0.9
RLAM Multi-Asset Credit	6.8%	1.5	1.6	-0.1	9.1	10.5	-1.3	1.4	2.9	-1.5	3.1	6.6	-3.3
Churchill Senior Loan Fund II	0.00/	1.9	2.3	-0.4	11.8	9.4	2.2	10.8	7.0	3.6	6.6	5.9	0.7
Churchill Senior Loan Fund IV	3.2%	2.4	2.3	0.1	12.3	9.4	2.7	10-0	-	:(=)	10.3	7.6	2.5
Permira IV	5.00/	2.1	2.3	-0.2	9.0	9.4	-0.3	7.4	7.0	0.4	5.4	6.0	-0.6
Permira V	5.2%	2.4	2.3	0.1	9.8	9.4	0.3	-	;	(I=);	9.2	9.3	-0.1
Protection*	7.6%												
RLAM Index-Linked Gilts	2.3%	-4.0	-2.9	-1.1	-6.5	-1.9	-4.7	-16.9	-14.0	-3.4	-10.9	-8.8	-2.4
Total Scheme		1.3	2.0	-0.7	8.5	11.8	-3.0	1.7	6.2	-4.2	5.4	120	-

Source: 3m, 12m and 3yr performance returns – Northern Trust and Investment Managers. Individual SI performance returns – Hymans calculated chain-linked. Performance figures for RLAM (including SI performance) and the 3m LCIV PEPPA have been taken from the Investment Manager, rather than Northern Trust. Longer term performance for Baillie Gifford Global Equity and Ruffer Absolute Return funds is inclusive of performance prior to their transfer into the LCIV. Please note, Hymans are conducting a wider review of Northern Trust provided performance figures for the Fund's mandates against investment manager provided performance figures over the respective periods. LGIM Global Equity mandate was managed by SSGA prior to November 2017 and we have retained the performance history for these allocations. The Fund performance figure includes the effect of the currency hedging mandate managed by Russell. All asset performance is in GBP terms and does not make an allowance for currency fluctuations.. The total Fund performance includes the impact of the Russell currency overlay mandate. Please see separate slide for further detail on the Russell mandate, along with asset performance excluding the impact of currency fluctuations



2

^{*}Includes cash at bank and currency hedging

Strategic Overview

The Fund's investment strategy is implemented through the London Collective Investment Vehicle ("LCIV"), and retained assets including life funds (with fee structures aligned with LCIV).

The target allocation to LCIV and life funds totals 61.0% of Fund assets. Other retained assets will be delivered through external managers, with the position reviewed periodically.

The chart below right illustrates the underlying asset allocation of the Fund, i.e. taking account of the underlying holdings in the multi-asset funds on a 'look through' basis.

The Fund's overall allocation to equities increased over the quarter to c.44.1% (c.43.0% as at 31 March 2024) as global equities continued to perform well and with the LCIV Absolute Return Fund allocation to equities increasing – from c.16.2% to c.22.5% over the period.

The Fund's overall allocation to gilts decreased further over the quarter to c.5.0% (c.6.2% as at 31 March 2024), with the LCIV Absolute Return Fund allocation to government bonds decreasing – from c.50.7% to c.40.7% over the period.

The Fund's allocation to corporate bonds increased over the period to c.6.8% (c.5.9% as at 31 March 2024) with the LCIV Absolute Return Fund allocation to corporate bonds increasing – from c.12.4% to c.21.5% over the period.

The allocations to real assets, multiasset credit, private debt and high yield assets remained broadly unchanged over the quarter.



Asset Class Exposures





Current Investment Implementation

The total value of the Fund's assets increased by £13.7m over the quarter to £983.7m as at 30 June 2024.

The increase in valuation is largely due to the Fund's equity allocation which continued to perform positively.

The Fund's total 'Income' assets allocation remained broadly unchanged over the quarter.

The Fund's 'Protection' assets overall increased over the quarter – primarily due to an increase in the cash held by the Fund over the period. The increase in cash held was primarily due to distribution payments made by the Fund's private market mandates over the period.

The Fund's cash balance at quarterend was discussed with the Fund's Officers, prior to the October 2024 Pensions Committee meeting – at the time of writing, a decision to the 'surplus' cash balance is due to agreed by the Officers.

Given the rise in real gilt yields over the quarter, the Fund's 'Protection' ILG assets marginally fell in value.

The Fund paid the following capital calls during the quarter:

• c.£1.5m to the LCIV Renewables Fund.

Strategic Overview

Manager Performance

Market Background

Appendix

Asset Allocation

	_	Valuation (£m)		_ Actual		Relative
		Q1 24	Q2 24	Proportion	oportion Benchmark	
Total Growth		509.8	518.7	52.7%	52.5%	0.2%
LGIM Global Equity	LCIV Aligned	41.9	42.9	4.4%	5.0%	-0.6%
LGIM Emerging Markets	LCIV Aligned	38.4	40.5	4.1%	5.0%	-0.9%
LGIM Future World Fund	LCIV Aligned	107.8	109.1	11.1%	10.0%	1.1%
LCIV Global Alpha Growth Paris Aligned Fund	LCIV	157.3	159.3	16.2%	15.0%	1.2%
LCIV PEPPA Passive Equity	LCIV	55.5	57.5	5.9%	5.0%	0.9%
LCIV Absolute Return Fund	LCIV	108.9	109.4	11.1%	12.5%	-1.4%
Total Income		389.8	390.1	39.7%	42.5%	-2.8%
LCIV Global Bond Fund	LCIV	47.4	46.9	4.8%	5.0%	-0.2%
UBS Property	Retained	48.9	49.3	5.0%	6.0%	-1.0%
CBRE	Retained	32.5	32.0	3.3%	4.0%	-0.7%
JP Morgan	Retained	50.8	50.7	5.2%	5.5%	-0.3%
Stafford Capital Global Infrastructure SISF	Retained	45.3	45.5	4.6%	3.5%	1.1%
LCIV Renewable Energy Infrastructure Fund	LCIV	14.2	15.7	1.6%	3.5%	-1.9%
RLAM Multi-Asset Credit	Retained	65.7	66.6	6.8%	7.5%	-0.7%
Churchill Senior Loan Funds	Retained	34.6	32.0	3.2%	3.0%	0.2%
Permira Credit	Retained	50.5	51.5	5.2%	4.5%	0.7%
Total Protection		70.4	74.9	7.6%	5.0%	2.6%
RLAM Index-Linked Gilts	Retained	23.9	23.0	2.3%	5.0%	-2.7%
Cash at Bank	Retained	42.7	47.3	4.8%	0.0%	4.8%
Currency Hedging P/L	Retained	3.7	4.5	0.5%	0.0%	0.5%
Total Scheme		970.0	983.7	100.0%	100.0%	

Source: Northern Trust and Investment Managers.

Valuation figures for RLAM have been taken from the Investment Manager.

Note: The target allocations were agreed in August 2023 as part of the last investment strategy review.

Pooling refers to whether the holding benefits from some form of collective bargaining. LCIV and LCIV aligned reflect mandates aligned with or managed by the LCIV. Other pooled indicates mandates where there are collective LGPS fee arrangements in place. Not pooled indicates mandates outside pooling arrangements.



Manager Analysis

Russell Currency Hedging

Russell Investments have been appointed to manage the Fund's currency overlay mandate.

The current policy is to hedge nonsterling exposures in the Fund's private markets mandates. Currency exposure in equity mandates is retained.

At present, 100% of the exposure to USD, EUR and AUD from the private market investments is hedged with any residual currency exposure retained on a de-minimis basis.

The volatility of returns (measured as the standard deviation of quarterly returns since inception) is 4.6% to date when the impact of currency fluctuations is included and 4.0% when currency movements are stripped out by the Russell currency overlay mandate. This continues to indicate that the Russell mandate is reducing overall volatility and increasing the predictability of returns, as intended.

Strategic Overview Manager Performance Market Background Appendix

-1.8

Q2 2024 Performance

	Asset return (inc. FX impact)	Currency return (via Russell mandate)	Asset return (ex. FX impact)	BM return	Relative return (ex. FX impact)
Stafford II	-1.6	0.5	-1.1	2.0	-3.1
Stafford IV	1.9	0.4	2.3	2.0	0.3
JPM	1.3	0.5	1.8	2.0	-0.2
Churchill II	1.9	0.0	2.0	2.3	-0.3
Churchill IV	2.4	-0.0	2.4	2.3	0.1
CBRE	-1.3	0.1	-1.2	2.0	-3.2
Permira IV	2.1	0.6	2.6	2.3	0.3
Permira V	2.4	0.5	2.9	2.3	0.6

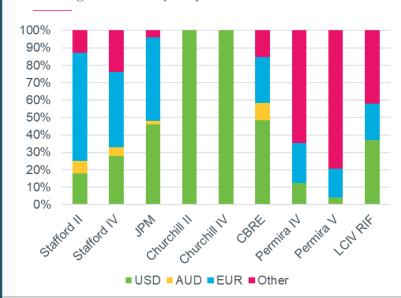
Performance Since Mandate Inception*

	Asset return (inc. FX impact)	Currency return (via Russell mandate)	Asset return (ex. FX impact)	BM return	Relative return (ex. FX impact)
Stafford II	7.5	-0.1	7.4	8.9	-1.4
Stafford IV	15.6	-0.8	14.8	11.5	3.0
JPM	9.6	-0.4	9.3	9.1	0.2
Churchill II	7.8	-1.7	6.1	5.9	0.2
Churchill IV	10.3	-3.0	7.2	7.6	-0.3
CBRE	4.6	-0.4	4.1	9.1	-4.5
Permira IV	5.4	0.4	5.7	6.0	-0.3
Permira V	7.5	-0.2	7.3	9.3	-1.8
LCIV RIF	10.3	-0.4	9.9	11.6	-1.5

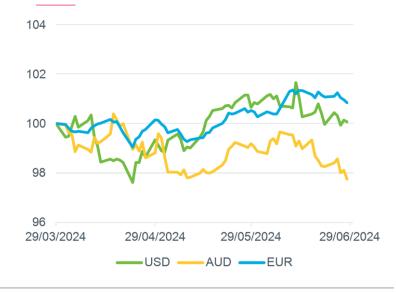
Hedged Currency Exposure**

0.2

LCIV RIF



Sterling Performance vs. Foreign Currencies (Rebased to 100 at 31 March 2024)



Source: Northern Trust and Investment Managers.

*Since inception performance is since individual fund inception of inception of the currency hedging mandate, whichever is more recent. ** As at 31 March 2024 (latest available).



Private Markets Investments

Since March 2018, the Fund has made commitments to seven private markets funds as outlined right. The table provides a summary of the commitments and drawdowns to 30 June 2024.

Strategic Overview

Manager Performance

Market Background

Appendix

Mandate		Infrastructure		Private Debt			
Vehicle	Stafford Infrastructure Secondaries Fund II	Stafford Infrastructure Secondaries Fund IV	LCIV Renewable Energy Infrastructure Fund	Churchill Middle Market Senior Loan Fund IV	Permira Credit Solutions IV Senior Fund	Permira Credit Solutions V Senior Fund	
Commitment Date	25/04/2018	18/12/2020	30/06/2021	29/09/2021	12/2018	07/11/2022	
Fund Currency	EUR	EUR	GBP	USD	EUR	EUR	
Gross Commitment	€28.5m	€30m	£25m	\$26.5m	£36.0m	£43.0m	
Gross Commitment (GBP estimate)	£24.2m	£25.4m	-	£21.0m	-	-	
Capital Called During Quarter (Payments Less Returned Capital)	-	-	£1.5m	-	-	-	
Capital Drawn To Date	£26.3m	£19.5m	£12.8m	£17.8	£31.2m	£18.2m	
Distributions/Returned Capital To Date (Includes Income and Other Gains)	£15.1m	£1.7m	-	£4.5m	£9.3m	£2.6	
NAV at Quarter End	£19.5m	£25.9m	£15.7m	£16.0m	£27.5m	£23.9m	
Net IRR Since Inception *	8.0% p.a.	12.8% p.a.	7-10% p.a. (Target)	8.9% p.a.**	7.1% p.a.	14.0% p.a.	
Net Cash Yield Since Inception*	6.9% p.a.	3.9% p.a.	3-5% p.a. (Target)	-	-	-	
Number of Holdings*	22 funds	16 funds	16 investments	134 investments	46 investments	20 investments	



Source: Investment Managers



Market Background

The US economy slowed more than expected in Q1 to an annualised quarterly pace of 1.4%. While this marks a sharp pullback from the blistering 3.4%, the economy still exhibits decent, if slowing, domestic demand. Quarter-on-quarter eurozone and UK GDP rose more than expected in Q1, by 0.3% and 0.7% respectively, with both regions officially exiting technical recession.

UK year-on-year headline CPI slowed meaningfully, returning to the Bank of England's (BoE) 2% target for the first time in almost three years in May and remained unchanged in June. Core CPI slowed but, at 3.5% year-on-year, highlights stubborn underlying inflation pressures. In the eurozone, headline and core CPI measures rose to 2.5% and 2.9%, respectively, in June. US headline CPI fell to 3.0% in June, while core CPI eased to 3.3%.

The European Central Bank (ECB) delivered a widely expected 0.25% pa reduction in its deposit facility interest rate, to 3.75% pa. However, the ECB raised its inflation outlook for 2024 and 2025. The Federal Reserve (Fed) and BoE held rates steady, at 5.5% pa and 5.25% pa respectively, and markets continue to expect fewer rate cuts in 2024 than they did at the start of the year

The US trade-weighted dollar rose 2.4% as market further reduced their rate cut expectations for 2024. The equivalent sterling measure rose 0.7% while the euro measure weakened a little as the ECB lowered rates. The Japanese tradeweighted yen fell a further 5.1% as markets continued to bet on wide interest rate differentials between Japan and its major developed-market peers.



-3.0

31 Mar

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

Eurozone



30 Jun

31 May

Sovereign bond yields rose on decent growth and sticky inflation data. US and UK 10-year bond yields both rose 0.2% pa to 4.4% pa and 4.2% pa, respectively. Despite the ECB's rate cut, German sovereign bond yields also rose 0.2% pa to 2.5% pa. French 10-year yields rose sharply, by 0.5% pa, due to uncertainties around the parliamentary elections.

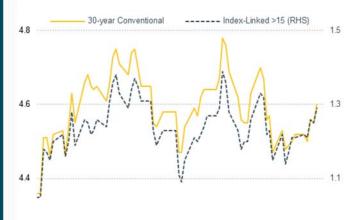
Despite little change in credit spreads, UK investment-grade credit markets recorded negative total returns as income was offset by a rise in underlying sovereign bond yields. Speculative-grade markets outperformed, supported by income return and their lower duration profile. Euro and US high-yield bonds delivered total returns of 1.5% pa and 1.1% pa, respectively.

The FTSE All World Total Return Index rose 3.5%. US Q1 earnings comfortably beat expectations and stocks tied to Al continued to benefit. Technology was the clear outperforming sector. Utilities were the only other, albeit modest, outperformer. All other sectors underperformed, with value-orientated sectors seeing the worst underperformance.

The MSCI UK Property Total Return Index rose 1.7% between March and June, as aggregate capital values increased modestly for the fourth consecutive month. On a 12-month basis to June, aggregate property capital values are down 4.7%. Aggregate nominal rental year-on-year growth was 3.6% in June. Given falls in inflation real rental growth, in CPI terms, reached 1.6% year-on-year in June.

Strategic Overview Manager Performance Market Background Appendix

Gilt yields chart (% p.a.)

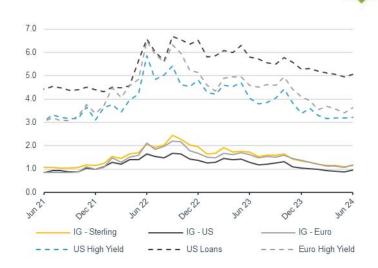




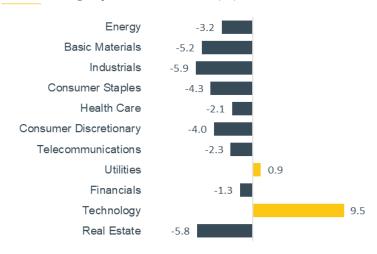
Regional equity returns [1]



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



Global equity sector returns (%) [2]



Source: DataStream, Barings, ICE [1] FTSE All World Indices. Commentary compares regional equity returns in local currency. [2] Returns shown in Sterling terms and relative to FTSE All World.



Capital Markets Outlook

Asset Class	Market Summary
Equities	A large rise in stock prices since the beginning of the year has taken the global equity price-to-earnings ratio above long-term averages, while above-trend earnings mean cyclically adjusted valuations are even higher. However, while elevated valuations are likely to weigh on longer-term returns, the fundamental outlook may support them in the near term: despite cautious forward guidance, the Q1 earnings season was strong enough to prompt modest upgrades to full-year global equity earnings estimates for 2024 and 2025, which now stand at 10.0 and 13.4%, respectively.
Investment Grade Credit	Credit spreads remain low, close to the 25th percentile of their long-term history, as resurgent new issuance was met by ongoing strong demand for high headline yields. Though overall corporate funding costs continue to rise in fixed interest markets as companies refinance existing debt at higher yields, debt affordability metrics remain in decent shape. Robust growth, an upswing in corporate earnings, and supportive financial conditions are all factors that could keep credit spreads at current levels for a while yet.
Emerging Market Debt	Supportive inflation developments, relatively subdued growth, and high real policy rates leave room for interest rate cuts, which is supportive for local currency duration. However, although overall yields are attractive, a potentially stronger for longer dollar may weigh on the asset class in the near-to-medium term. Low EM/DM long-term yield differentials also weigh on optimism towards the asset class.
Liquid Sub-Investment Grade Debt	Default rates have risen, and are slightly above long-term averages, but Moody's estimates that this represents the current cycle's peak and that default rates will fall below historic averages by the end of the year. However, high yields have supported demand in a shrinking market, and speculative-grade bond spreads are very low, providing little cushion against downside risks.
Private Lending	Speculative-grade loan spreads, which are in line with long-term medians, offer better value relative to similarly rated bonds, and a more modest pace of interest-rate cuts points to a potentially attractive income-based return over the medium term.
Core UK Property	We have seen continued improvement in several of the fundamental indicators we track for UK commercial property, as evidenced by the latest Royal Institute of Chartered Surveyors survey. At the same time, real rental growth has continued to rise as inflation has fallen. However, vacancies have continued to rise in the office sector and, given shifts in working patterns and office space requirements, the rise in vacancies in the sector in recent years looks somewhat structural. Our ongoing caution is largely a reflection of the challenging technical environment, characterised by selling pressure on open-ended property funds, low transaction volumes and potentially large discounts to net asset value upon disposal
Conventional Gilts	After a surprisingly strong recovery in GDP growth in Q1, business surveys point to sustained improvement in activity in Q2, leading us to shade down our fundamental assessment. Though, gilt yields remain attractive relative to our assessment of fair value based on long-term growth and inflation forecasts. The technical backdrop remains challenging amidst high issuance and BoE gilts sales.
Index-Linked Gilts	Better-than expected real growth also see us shade down our fundamental assessment for index-linked gilts. Index-linked gilt yields are in-line with our assessment of fair value, while implied inflation looks a little expensive relative to both shorter- and longer-term forecasts.

The table summarises our broad views on the outlook for markets.



Disclaimer

This report is addressed to the London Borough of Havering Pension Fund. It should not be released or otherwise disclosed to any third party except as required by law or regulatory obligation or without our prior written consent. We accept no liability where the report is used by, or released or otherwise disclosed to, a third party unless we have expressly accepted such liability in writing. Where this is permitted, the report may only be released or otherwise disclosed in a complete form which fully discloses our advice and the basis on which it is given.

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

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

This report may contain fund and fund manager specific research ratings and comments based on the views of our investment research team. Please speak to your investment adviser before taking any investment decisions or actions. They will advise whether formal investment advice is necessary, including a risk assessment and investment suitability information where appropriate.

Hymans Robertson LLP has relied upon third party sources and all copyright and other rights are reserved by such third party sources as follows: DataStream data: © DataStream; Fund Manager data: Fund Manager; Morgan Stanley Capital International data: © and database right Morgan Stanley Capital International and its licensors 2024. All rights reserved. MSCI has no liability to any person for any losses, damages, costs or expenses suffered as a result of any use or reliance on any of the information which may be attributed to it; Hymans Robertson data: © Hymans Robertson. Whilst every effort has been made to ensure the accuracy of such estimates or data - including third party data - we cannot accept responsibility for any loss arising from their use. © Hymans Robertson LLP 2024.

Geometric vs. Arithmetic Performance

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

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

Some industry practitioners use the simpler arithmetic method as follows:

Fund Performance – Benchmark Performance

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

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