HYMANS ROBERTSON

London Borough of Brent Pension Fund

Investment Strategy Review – 2023

February 2023

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For and on behalf of Hymans Robertson LLP

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1 Introduction

Addressee and purpose

This report is addressed to the Officers and Pension Fund Sub Committee (the "Committee") of the London Borough of Brent as administering authority to the London Borough of Brent Pension Fund (the "Fund"). This report sets out the conclusions of the review of the Fund's investment strategy, makes initial recommendations on the asset allocation for the Fund and provides recommendations for the Fund's Growth, Income and Protection portfolios.

This report should not be used for any other purpose. It should not be released or otherwise disclosed to any third party except as required by law or with our prior written consent, in which case it should be released in its entirety. We accept no liability to any other party unless we have accepted such liability in writing. We provide comment from an investment but not a legal or tax perspective. This report complies with Technical Actuarial Standard 100: Principles for Technical Actuarial Work.

Background and objectives

The work we have undertaken has been influenced by our understanding of the Fund's background, objectives, and beliefs, which are set out below.

The Fund was 87% funded at the 2022 actuarial valuation which represents a 9% improvement on the previous valuation which took place in 2019.

The Fund's investment objectives are:

- Ensure that sufficient resources are available to meet all benefit as they fall due for payment.
- Recover any shortfall in assets, relative to the value of accrued liabilities, over broadly the future working lifetime of current employees.
- Enable employer contributions to be kept as stable as possible and at reasonable cost; and,
- Maximise the returns from investments within reasonable risk parameters.

For this investment strategy review, we have interpreted these objectives as meaning that the Fund aims to achieve and maintain 100% funding with a Probability of Success of at least 70% in 20 years' time. The report both focuses on the high-level investment strategy with the aim to determine the high-level allocation to Growth, Income and Protection assets which best meets the Fund's investment objectives, i.e. what the Fund should invest in. In addition, it will look to highlight some areas for further consideration by the Committee on the underlying asset classes used to achieve this investment structure.

To assess whether an investment strategy is suitable, asset-liability modelling was undertaken as at 31 March 2021 in conjunction with the actuarial valuation. The results of this modelling have been included in the appendix for your information. Recognising that some time has passed since this modelling was run, we have used our in house proprietary 'Structure Lite' model to stress test these initial results to make sure they remain valid.

Our advice also reflects the need to align the Fund's investment strategy with its investment beliefs.

Conclusions and recommendations

A summary of our conclusions and recommendations is set out below:

- The funding position has improved since the 2019 actuarial valuation, which is welcome news.

- We continue to support the Fund's long-term target allocations to Growth, Income and Protection assets, which were agreed following the 2019 actuarial valuation. In particular, we recommend the Fund continues to build out its private markets investments in infrastructure, private debt and property to help move the Fund towards the long-term target allocations previously agreed both from a position of diversification and accessing alternative sources of excess return.

- Cashflow analysis: the 10% pension increase in April 2023 coupled with a reduction in future contributions is expected to impact the cashflow position of the Fund. We have not analysed the cashflow position in this report but we would be happy to prepare this for the Committee, working with our colleagues in the actuarial team. This analysis will assess whether current levels of investment income are sufficient to cover any shortfall between contribution income and benefits paid.

Growth portfolio recommendations

- **Rebalancing:** the Fund is currently c9% overweight equities relative to the long-term target allocation (actual c59% vs target 50%) – please see the table on the next page. Around one-third of this overweight position will naturally be corrected as the private equity mandate winds down over the next few years. We recommend that the remaining c6% is sold (from the LGIM global equity mandate) and re-invested in multi-asset credit and gilts to increase these towards their target allocations.

- **Low carbon equites:** as the Fund continues to develop its net zero roadmap, a priority action is to review the Fund's global equities to determine whether the Fund can continue to access global equity markets and also achieve a reduction in its carbon emissions. At c40% of total assets, the global equities are the largest contributor to the Fund's carbon emissions. We recommend the Committee undertakes a market review during Q2 2023 and selects one or possibly two low carbon global equity funds to replace the current LGIM global equity mandate.

Income portfolio recommendations

- **Infrastructure:** new investments will need to be identified to build the allocation to infrastructure towards its 15% target. We recommend that the Committee carries out a review of suitable infrastructure funds, including the London CIV renewables infrastructure fund as well as funds offered by external managers. We would also highlight that Timberland is attracting interest within the LGPS at the moment and an allocation to Timberland could be considered as part of a diversified infrastructure portfolio.

- **Private debt:** the Fund has committed £50m to the London CIV private debt fund and this investment is currently in its build up phase. The expected profile of the private debt fund is such that it increases in value as capital is invested and then reduces in value as income and redemptions are returned to the Fund. To maintain the 5% target allocation, it is common for pension schemes to invest in a series of private debt funds, with commitments being made to new funds every 2-3 years. We recommend the Committee investigates options in this area and, in the first instance, asks the London CIV to confirm its future plans.

- **Property:** the target allocation to property is 10%, with 2.5% of this already invested across two UK commercial property mandates with UBS and Fidelity. We recommend that the Fund continues to build its property allocation and creates a diversified portfolio comprising UK commercial property, UK housing and global property. A 10% allocation is broadly equivalent to £110m currently and we recommend that this is built up as indicated in the table below.

Allocation	Allocation	Percentage split
UK commercial (UBS & Fidelity)	£40m	36%
LCIV UK Housing Fund	£30m	28%
Global property	£40m	36%
Total	**£110m**	**100%**

- In terms of timing, we would recommend waiting until the second half of 2023 before adding to the Fund's UK commercial property allocation and investing in a new global property fund. We recommend the Committee lays the groundwork for a future investment by carrying out a review of global property managers ahead of making an investment in Q3 or Q4 of 2023.
- We are content for the Fund to proceed with a £30m commitment to the LCIV UK Housing Fund, subject to appropriate due diligence, which will be drawn down beginning from April 2023.
- We recommend these investments are met by selling a proportion of the diversified growth funds.

Protection portfolio recommendations

- **Rebalancing:** as noted above, we recommend that c6% is sold from the LGIM global equity mandate and re-invested in multi-asset credit and gilts to increase these towards their target allocations. This will rebalance risk levels within the Fund in the short term with a review of the long-term role of gilts to follow later (see recommendation below). We are comfortable investing more into gilts now even if this ultimately proves to be a temporary measure, given that trading costs in and out of gilts are relatively low.
- **Review Protection portfolio:** bond yields increased significantly during 2022. While this has led to a fall in bond asset values, the higher yield means investing in bonds is more attractive now than it has been for some time. The Protection portfolio consists of multi-asset credit and fixed interest gilts currently. As noted above, replacing the fixed-interest gilts with corporate bonds would boost expected returns with only a marginal increase in risk levels.

Recommendations - summary

	Allocation at 31 Dec 2022 (%)	Long-term target allocation (%)	Recommendations
Listed global equities[1]	46.0	40.0	Reduce overweight; select low carbon funds
Listed UK equities	6.3	5.0	No action at this time
Emerging markets	3.9	5.0	No action at this time
Private equity	2.5	0.0	Use income to meet capital calls
Total Growth	**58.7**	**50.0**	
Diversified growth funds	20.7	5.0	Sell portion to fund investments below
Infrastructure	5.2	15.0	Identify new investments
Private debt	3.1	5.0	Identify new investments
Property	2.4	10.0	Build to 10% in 3 components during 2023
Total Income	**31.4**	**35.0**	
Multi-asset credit	3.8	5.0	Top-up from equities; review in 2023
Gilts	4.9	10.0	Top up from equities; review in 2023
Total Protection	**8.7**	**15.0**	
Cash	1.2	0.0	Continue to use to fund capital calls
Total	**100.0**	**100.0**	

1 This is split 43.4% in a global equity mandate with LGIM and 2.5% in the BlackRock World Low Carbon fund

2 Investment strategy review

Investment strategy review process

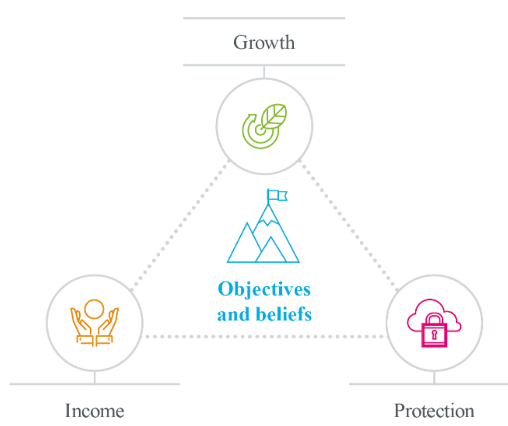
As mentioned in the background and objectives, the review process has two main parts:

1. **Reviewing the investment strategy:** the review of the investment strategy focuses on the high-level allocation to Growth, Income and Protection assets, as well as the high-level asset class allocation within these categories, i.e. **what** the Fund should invest in.
2. **Reviewing the investment structure:** the investment structure review then looks at the detailed implementation of these asset class allocations, i.e. **how** the Fund should invest.

Further detail on the investment structure review will be presented to the Committee at a future meeting.

Framework for the review

The objectives of the review are to determine the mix of assets which best meets the risk and return requirements of the Fund. Our approach is to evaluate the Fund's current strategy against a range of plausible alternatives, each designed to test potential enhancements the Fund could make. To help frame the analysis, we have used our Growth/Income/Protection framework, as per the diagram below.



Growth Assets which deliver positive real returns over the long-term enabling the Fund to meet its obligations whilst maintaining the affordability of the target level of contributions (assets such as global and private equity).

Income Assets which deliver a relatively high and stable level of income which helps the Fund to diversify risk and to fund benefits payments (assets such as property, infrastructure, private debt).

Protection Assets which reduce or hedge the Fund's investment risk and thereby seek to protect the funding position (assets such as traditional gilts and index-linked gilts).

The Fund's current investment strategy

The starting point for the investment strategy review is of course the Fund's current investment strategy. Any potential alternatives should be compared to the current strategy to ensure potential improvements are significant enough to justify the costs of implementing them. The Fund's current actual and long-term target asset allocations are set in the table below.

This shows that the Fund's investment strategy is currently in a transition phase, with allocations to infrastructure, private debt and property in a "build up" phase. The overweight positions to diversified growth

funds and cash will be reduced over time to fund these new investments. We recommend that the multi-asset credit and gilts allocations are topped up from equity sales.

	Allocation at 31 Dec 2022 (%)	Long-term target allocation (%)	Relative position (%)
Listed global equities	46.0	40.0	6.0
Listed UK equities	6.3	5.0	1.3
Emerging markets	3.9	5.0	(1.1)
Private equity	2.5	0.0	2.5
Total Growth	**58.7**	**50.0**	**8.7**
Diversified growth funds	20.6	5.0	15.6
Infrastructure	5.2	15.0	(9.8)
Private debt	3.1	5.0	(1.9)
Property	2.5	10.0	(7.5)
Total Income	**31.4**	**35.0**	**(3.6)**
Multi-asset credit	3.8	5.0	(1.2)
Gilts	4.9	10.0	(5.1)
Total Protection	**8.7**	**15.0**	**(6.3)**
Cash	1.2	0.0	1.2
Total	**100.0**	**100.0**	**-**

Alternative investment strategies considered

To test whether the current long-term target remains appropriate, we have modelled alternative investment strategies to determine whether there is a more optimal mix of assets for the Fund. Five key themes drove the potential alternatives considered:

- **Improving funding position** – the Fund has seen an improvement in the funding position since the last strategy review, albeit it is still in deficit. What impact does this have on the Fund's investment strategy?
- **High inflation** – economic conditions have rapidly evolved over that last few of months, meaning high inflation and interest rates. How can the asset allocation be adjusted to provide more inflation linkage?
- **Increasing protection assets** – due to the increase in gilt yields and corporate bond spreads, is there an opportunity to refine the Protection portfolio to improve returns while assisting to lower overall risk levels?
- **Climate change** – can the asset allocation be altered to help achieve the Fund achieves its net zero ambitions without harming funding outcomes?
- **LGPS Pooling** – is there an opportunity to pool funds with other London Boroughs through the London CIV to allow for better investment opportunities?

Additional considerations

There are some important considerations that are not captured by the above modelling but need to form part of the investment strategy review. These are listed below:

- **Impact of recent market movements** – the modelling was carried out as at 31 March 2021 as part of the actuarial valuation. What is the impact of market movements since 31 March 2021?
- **Liquidity risk** – the risk of not having sufficient cash immediately available to meet the Fund's liabilities and being forced to sell assets; this risk increases as the Fund increases the allocation to illiquid assets.
- **Strategic risks** – the resilience of the portfolio to macroeconomic risks that are hard to model, such as geopolitical risk, technological change, demographics, and political/social instability.
- **Ability to deploy capital** – private markets can be difficult to invest large sums of money into within short-to-medium timescales.
- **Alignment with beliefs** – the chosen investment strategy should reflect the Fund's investment beliefs.
- **Acceptability to stakeholders** – such as employers, the Committee, etc.
- **Views relating to Responsible Investment ('RI')** – these are not necessarily direct risk/return decisions but may be impacted by wider ethical considerations.

3 Strategic considerations

Asset-liability modelling

The results of the asset-liability modelling undertaken by the actuarial team as at 31 March 2021 are summarised in appendix 1, based on the following strategies.

	Strategy when modelling was undertaken (%)	Long-term target allocation (%)	De-risked strategy 1 (%)	De-risked strategy 2 (%)
Global equities	45.8	40.0	35.0	35.0
UK equities	5.6	5.0	2.5	2.5
EM equities	4.1	5.0	2.5	2.5
Private equity	2.9	-	-	-
Total Growth	**58.4**	**50.0**	**40.0**	**40.0**
Diversified growth funds	20.5	5.0	5.0	5.0
Infrastructure	4.3	15.0	15.0	15.0
Private debt	1.3	5.0	7.5	7.5
Property	1.5	10.0	10.0	10.0
Total Income	**27.6**	**35.0**	**37.5**	**37.5**
Multi-asset credit	3.9	5.0	7.5	12.5
Gilts	8.1	10.0	10.0	-
UK corporate bonds	-	-	5.0	10.0
Total Protection	**12.0**	**15.0**	**22.5**	**22.5**
Cash	2.0	-	-	-
Total	**100.0**	**100.0**	**100.0**	**100.0**

Updated risk and return figures

Recognising that the asset-modelling was undertaken as at 31 March 2021, we have used our proprietary 'Structure Lite' model to recalculate the long-term expected returns and associated risk measures[2] for each of the strategies modelled. This analysis captures market conditions as at 31 December 2022 and reflects the significant increase during 2022 in the risk-free yield available on UK government gilts. The assumptions used to produce these figures are described in appendix 3.

[2] The expected returns are assessed over a 20-year period and are quoted relative to the liabilities. The risk or volatility measure captures the risk in the form of the potential variance in expected return over a 1-year period. For example, a risk measure of 12% p.a. implies that over 1 year period the expected return could vary by +/- 12% in any two years out of three. Equity risk is the largest contributor to both return and risk when measured on an absolute basis.

	Current strategy (at 31 Dec 2022)	Current long-term strategy	De-risked strategy 1	De-risked strategy 2
20 year expected return	4.56% p.a.	4.61% p.a.	4.56% p.a.	4.75% p.a.
1 year risk measure	12.7%	12.1%	11.4%	11.7%

Conclusions

Overall points to note are as follows:

- This analysis provides support for continuing to move towards the long-term target allocations agreed following the 2019 actuarial valuation – the long-term strategy is expected to provide a marginal increase in expected return with lower risk compared to the current strategy.
- We have also modelled the current long-term strategy with the 10% allocation to fixed-interest gilts replaced by 10% in corporate bonds. The risk and return profile of this strategy is an expected return of 4.81% p.a. with a risk measure of 12.3%. This would offer a 0.2% p.a. increase in expected return, which is equivalent to a £40m-45m increase in the Fund's assets.
- The results for the de-risked strategies give some support to reducing the Fund's exposure to equities. This looks attractive and could be a target to work towards but we are mindful that this would increase the Fund's exposure to nominal assets at a time when inflation is high. We recommend this position is monitored with a view to reducing the Fund's equity exposure should suitable opportunities emerge, with a full reassessment being carried out in conjunction with the next actuarial valuation in 2025.

Conclusion: Refining the current long-term strategy by replacing the allocation to fixed-interest gilts with corporate bonds provides the simplest route to increasing the expected return with only a marginal increase in risk.

Climate change

The results of the modelling described in appendix 1 included climate scenario analysis. This shows that the investment strategy is relatively robust to different climate scenarios with little difference in the projected funding outcomes. In part, this is because climate change is only one of many risks the Fund faces (e.g. equity risk, market risks, inflation risk) – though a very significant risk – and the modelling developed to date does not capture the more severe impacts of climate change. Climate scenario modelling is an evolving area and subsequent modelling exercises may show greater differences between the strategies modelled.

4 Review of the Growth portfolio

Current position

The table below compares the current allocations to Growth assets relative to the long-term targets. This shows that the Fund is c9% overweight equities. Around one-third of this overweight position will naturally be corrected as the private equity mandate winds down over the next few years. Distributions received from the private equity market mandate can be used to help meet capital calls for the Fund's private markets investments.

	Allocation at 31 Dec 2022 (%)	Long-term target allocation (%)	Relative position (%)
LGIM Global equities	43.4	40.0	6.0
BlackRock World Low Carbon	2.5		
LGIM UK equities	6.3	5.0	1.3
LCIV EM equities	3.9	5.0	(1.1)
Cap Dyn private equity	2.5	0.0	2.5
Total Growth	**58.7**	**50.0**	**8.7**

Rebalancing

We recommend that the remaining c6% overweight is rebalanced from the LGIM global equity mandate and re-invested in multi-asset credit and gilts to increase these towards their target allocations.

Low carbon equities

After rebalancing, listed equities will represent 50% of the Fund's total assets. By reducing emissions of these funds, we aim to make significant progress towards achieving the Fund's net zero ambitions, whilst maintaining the expected investment returns. The LGIM global equity mandate alone represents c40% of total assets and as the Fund continues to develop its net zero roadmap, a priority action is to review whether there are low carbon alternatives for this mandate.

We recommend the Committee undertakes a market review during Q2 2023 and selects one or possibly two low carbon global equity funds to replace the current LGIM global equity mandate. This review would be supported by our recommendation and the Committee may also wish to meet the managers as part of this exercise. We have shortlisted three funds in this report for discussion and further details are set out in appendix 7 [confidential].

5 Review of the Income portfolio

Current position

The table below compares the current allocations to Income assets relative to the long-term targets. The overweight allocation to diversified growth funds will be reduced over time with these funds being deployed to build out the Fund's infrastructure, private debt and property investments. At an aggregate level, the Income portfolio is 3.6% underweight and we expect that this will rebalance naturally as distributions from the private equity mandate are used to meet private markets capital calls.

	Allocation at 31 Dec 2022 (%)	Long-term target allocation (%)	Relative position (%)
Diversified growth funds	20.6	5.0	15.6
Infrastructure	5.2	15.0	(9.8)
Private debt	3.1	5.0	(1.9)
Property	2.5	10.0	(7.5)
Total Income	**31.4**	**35.0**	**(3.6)**

Infrastructure

New investments will need to be identified to build the allocation to infrastructure towards its 15% target. We recommend that the Committee carries out a review of suitable infrastructure funds, including the LCIV renewables infrastructure fund as well as funds offered by external managers. We would also highlight that Forestry/Timberland is attracting interest within the LGPS at the moment and an allocation to Timberland could be considered as part of a diversified infrastructure portfolio. Briefing notes are provided below.

LCIV renewables infrastructure

The aim of the fund is to create a portfolio of direct and indirect (using primary or secondary funds) investments in renewable infrastructure, diversified across regions, technologies, stages (e.g. greenfield and brownfield) and revenue streams.

The fund is targeting exposure in North America, Europe (including the UK) and Asia, although there is an allowance of up to 20% in emerging markets. The long-term investment objective of the fund is to seek to deliver an internal rate of return (net of fees) of 7%-10%, with a target yield 3%-5% p.a.

Forestry/Timberland

Forestry, or Timberland, investments involve the purchase of plantations and naturally occurring forests to grow and harvest wood. Investors generally own the forest, including the land it is on, entitling them to the financial returns generated from the forest, whether this is capital appreciation or income from selling forestry products, such as timber. Forest owners can also take credit for the carbon taken out of the air by the forest, given they now own that stored carbon. Further details are set out in appendix 4.

Private debt

The Fund has committed £50m to the London CIV private debt fund and this investment is currently in its build up phase. The expected profile of the private debt fund is such that it will increase in value as capital is invested and then reduce in value as income is returned to the Fund. To maintain the 5% target allocation over the longer term, it is common for pension schemes to invest in a series of private debt funds, with commitments being made to new funds every 2-3 years. We recommend the Committee investigates options in this area and in the first instance asks the London CIV to confirm its future plans.

Property

The Fund has a 10% long-term target allocation to property. The Fund has invested 3% of assets across two UK commercial property funds, the UBS Triton Fund and Fidelity UK Real Estate. In our paper dated September 2021, we set out our thoughts on how the overall property allocation could be constructed, with an initial 3% allocation to UK commercial property to be topped up in future years as new opportunities became available across a number of property sectors, notably residential property and global property.

Given changes in the property market over the last couple of years, we recommend that the 10% allocation (broadly equivalent to £110m) is built up as follows.

Component	Allocation	Percentage split
UK commercial property	£40m	36%
LCIV UK Housing Fund	£30m	28%
Global property	£40m	36%
Total	£110m	100%

Rationale

UK commercial property is facing headwinds, which make us more cautious about building a large allocation to UK commercial property at the current time. Many private sector defined benefit pension schemes are looking to reduce their property allocations and this means demand for UK commercial property balanced funds may be lower in future. This creates liquidity risks, and while liquidity is unlikely to be a primary concern for a long-term investor like the Fund, on balance we would favour building the allocation to global property.

Global property provides a larger opportunity set giving diversification across geographies, sectors and economic factors and can often also offer a boost to returns through greater use of leverage. It is also less exposed to the supply and demand factors driven by UK pension schemes. It should be noted that the asset also has additional risks (currency, legal framework, leverage etc) but exposures to these are reasonable in a well-diversified portfolio.

In terms of timing, we would recommend waiting until the second half of 2023 before adding to the Fund's UK commercial property allocation and investing in a new global property fund. This is because the property market (UK and global) is going through a "re-pricing" at the moment with investors re-evaluating the prices they are willing to pay for property assets when risk-free returns on government bonds increased so significantly during 2022. This is evidenced by the negative returns produced by property managers during Q4 2022.

To date, this re-pricing has been based on sentiment but this trend is expected to continue during the first half of 2023 as transactions are completed and prices become more visible. While this plays out, we recommend the Committee lays the groundwork for a future investment by carrying out a review of global property managers with a view to selecting a manager ahead of making an investment in Q3 or Q4 of 2023.

The lower risk/lower return nature of the UK Housing Fund means that it is expected to be less sensitive to these market conditions. Therefore, we are content for the Fund to proceed with a £30m commitment to this fund, which we understand will be drawn down over a c2 year period beginning from April 2023.

We recommend that these new investments are met by selling a proportion of the diversified growth funds, noting these investments were designed to provide access to a diversified range of asset classes until the new private markets investments became available.

Further details on the LCIV UK Housing Fund and global property are set out below.

LCIV UK Housing Fund

The LCIV UK Housing Fund invests in UK residential property (housing) only. The fund will invest in a range of distinct types of social and affordable housing funds. The Fund will focus on underlying funds investing in strategies that increase the supply of good quality, affordable housing in the UK while also generating competitive risk-adjusted returns.

The three overarching categories are:

1. General needs social and affordable housing (minimum 50%);
2. Specialist housing (0 to 25%); and
3. Transitional supported housing (0 to 25%).

The long-term investment objective of the fund is to seek to deliver an internal rate of return (net of fees) of 5%-7%, with a target yield 3%-4% p.a.

A more detailed assessment is set out in our separate product assurance note.

Global property

The strategic rationale for global property is similar to that for UK property, i.e.:

- Diversification of equity returns;
- Income; and
- Capital growth.

The major difference being there is likely to be more emphasis on capital growth, especially as global funds tend to be leveraged (i.e. funds will tend to utilise both property equity and debt approaches to enhance returns).

As part of a diversified portfolio, an allocation to global property could be attractive from a return enhancement and diversification perspective. Expected returns might be in the region of 1-2% p.a. above UK property, but this does come with additional risks around leverage, legal regime and currency.

6 Review of the Protection portfolio

Current position

The table below compares the current allocations to Protection assets relative to the long-term targets. This shows that the allocation is underweight at present, driven mainly by the sharp decline in the market value of bond assets during 2022 due to the impact of rising interest rates.

	Allocation at 31 Dec 2022 (%)	Long-term target allocation (%)	Relative position (%)
Multi-asset credit	3.8	5.0	(1.2)
Gilts	4.9	10.0	(5.1)
Total Protection	**8.7**	**15.0**	**(6.3)**

Rebalancing

We recommend that c6% is sold from the LGIM global equity mandate and re-invested in multi-asset credit and gilts to increase these towards their target allocations.

Opportunities from recent market movements

During 2022, a deterioration in the economic outlook and sharply rising inflation led to interest rates increases. This led to significant falls in bond asset valuations as illustrated by the figures in the table above (although we would highlight that the Fund's allocation to bonds was already relatively low meaning the impact of falling bond values has been more muted than for some funds).

The rise in interest rates means that the yields available on bonds (UK government gilts and corporate debt) are more attractive than they have been for some time. As a result, we believe this would be an opportune moment to review any potential case for reviewing the Protection portfolio, the object being to increase the expected return while maintaining risk at or around current levels.

Protection assets include fixed-interest gilts, index-linked gilts, investment grade corporate bonds, multi-asset credit and cash. The aim of the Protection allocation is to reduce investment risk and provide an element of capital preservation (although it does need to be acknowledged that the Fund's Protection assets provided little protection during 2022 when unusually most of the major asset classes fell in value at the same time).

The Fund already invests in fixed-interest gilts and multi-asset credit. We recommend the Committee reviews the Protection assets to determine whether investing in other bond assets, notably investment grade credit, would enhance returns while maintaining risk at or around current levels.

The priority action, however, is to undertake the recommended rebalancing to restore the allocations to multi-asset credit and fixed-interest gilts towards their target allocations.

7 Recommendations and next steps

Recommendations

Our recommendations are set out below:

- Long-term strategic allocation – the current long-term target allocation can be enhanced by replacing fixed-interest gilts with corporate bonds.
- Cashflow requirements – we would be happy to prepare cashflow projections, working in conjunction with our colleagues in the actuarial team, to test whether current levels of investment income are sufficient to cover any shortfall between contributions income and benefits paid.
- Rebalancing – we recommend 6% of total assets is sold from the LGIM global equity mandate and re-invested in multi-asset credit and fixed-interest gilts.
- Low carbon equities – we recommend the Committee selects one or possibly two low carbon equity funds to replace the LGIM global equity mandate.
- Income portfolio – we recommend that the Fund continues to build out its investments in infrastructure, private debt and property, to move towards the long-term strategic allocation.
- Infrastructure – new investments will be needed to build infrastructure towards its 15% target allocation.
- Property – we recommend the Fund commits £30m to the LCIV Housing Fund and considers appointing a global property manager with a view to investing in the second half of 2023.
- Private debt – we will contact LCIV to establish whether they plan to launch a second private debt fund to allow the Fund to maintain its 5% allocation over the long term.
- Protection portfolio – as above, we recommend the Committee carries out a review of the Protection portfolio to identify whether this can be refined to increase expected returns.

We look forward to discussing this paper with the Committee and Officers.

Prepared by:

Kenneth Taylor, Senior Investment Consultant

For and on behalf of Hymans Robertson LLP

February 2023

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General risk warning

Please note the value of investments, and income from them, may fall as well as rise. This includes equities, government or corporate bonds, and property, whether held directly or in a pooled or collective investment vehicle. Further, investments 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 overseas investment. As a result, an investor may not get back the amount originally invested. Past performance is not necessarily a guide to future performance.

Appendix 1 – Asset-liability modelling results

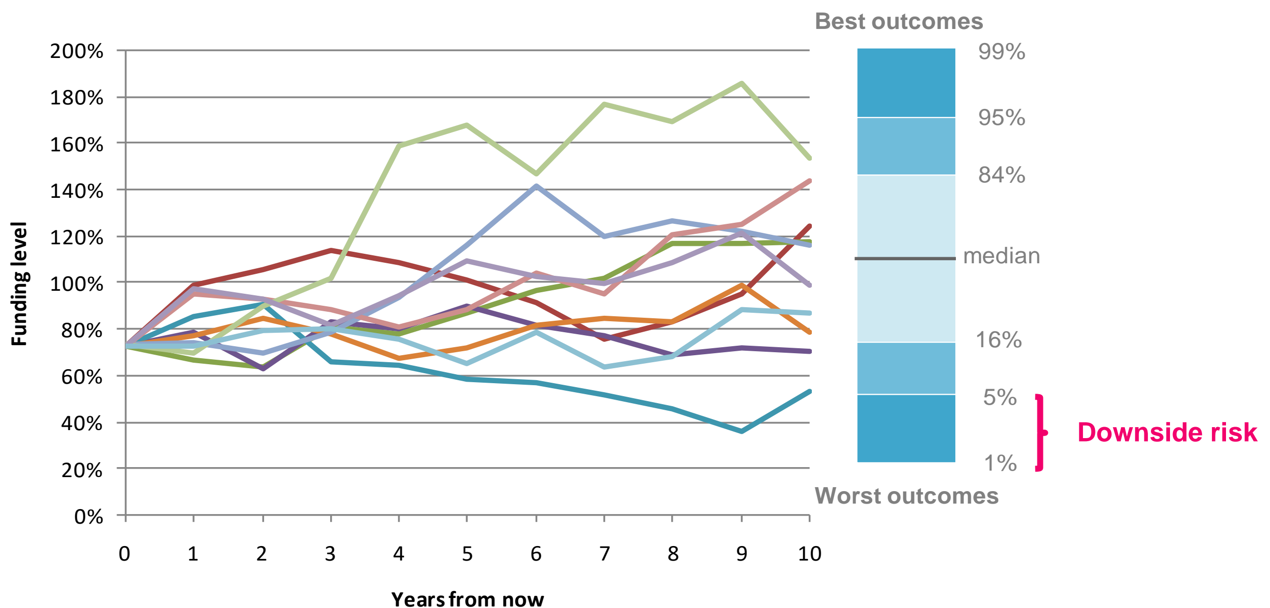
Introduction

This is a summary of the asset-liability modelling results prepared by the actuarial team and presented in their report, "Review of LB Brent Contribution Strategy" dated 21 April 2022.

Evaluating strategies

To evaluate the current investment strategy against potential alternatives, asset-liability modelling is undertaken to project funding outcomes. In summary, this modelling involves:

- Generating 5,000 "economic scenarios" based on various combinations of asset class returns, inflation rates, interest rates and salary increases.
- Projecting forward the Fund's funding position over time for each investment strategy in each of the 5,000 scenarios, which establishes the distribution of possible funding outcomes (as shown in the diagram below)
- For each investment strategy, calculating various metrics which reflect both the expected funding outcome and the funding outcomes in upside and downside scenarios.



Illustrative chart only

Probability of Success: from the distribution of outcomes, we can estimate the probability of being fully funded, i.e., the proportion of scenarios in which the funding level would exceed 100%, at a particular point in time (the "Probability of Success"). The Probability of Success over 20 years is the main success measure used by the Fund.

Downside Risk: we can also predict the average deterioration in funding level in adverse scenarios (the "Downside Risk"). The Fund uses the average of the worst 5% funding outcomes in 2028 years (to coincide with the actuarial valuation after next) as its primary measure of Downside Risk. We use these metrics to compare the performance of different investment and funding strategies.

Projected Returns – the distribution of projected returns from the portfolio of assets over a period of 20 years which informs the discount rate used to value the Fund's liabilities.

Strategies modelled and summary results

The strategies modelled as at 31 March 2021 and summary results are set out below.

	Strategy when modelling was undertaken (%)	Long-term target allocation (%)	De-risked strategy 1 (%)	De-risked strategy 2 (%)
Global equities	45.8	40.0	35.0	35.0
UK equities	5.6	5.0	2.5	2.5
EM equities	4.1	5.0	2.5	2.5
Private equity	2.9	-	-	-
Total Growth	**58.4**	**50.0**	**40.0**	**40.0**
Diversified growth funds	20.5	5.0	5.0	5.0
Infrastructure	4.3	15.0	15.0	15.0
Private debt	1.3	5.0	7.5	7.5
Property	1.5	10.0	10.0	10.0
Total Income	**27.6**	**35.0**	**37.5**	**37.5**
Multi-asset credit	3.9	5.0	7.5	12.5
Gilts	8.1	10.0	10.0	-
UK corporate bonds	-	-	5.0	10.0
Total Protection	**12.0**	**15.0**	**22.5**	**22.5**
Cash	2.0	-	-	-
Total	**100.0**	**100.0**	**100.0**	**100.0**

	Strategy when modelling was undertaken	Current long-term strategy	De-risked strategy 1	De-risked strategy 2
Probability of Success	76%	79%	79%	81%
Downside Risk	34%	36%	38%	38%

These metrics give support to continuing to move towards the long-term target allocations that were agreed following the 2019 actuarial valuation. Both de-risking strategies give improved metrics indicating there may be scope to reduce exposure to equities. However, the improvement in the metrics is marginal and we recommend that de-risking is reconsidered as part of the 2025 actuarial valuation, taking into account the funding position at that time, so that the impact on future contribution levels can also be considered.

Appendix 2 – ESS model and assumptions

Economic Scenario Service

The distributions of outcomes depend significantly on the Economic Scenario Service (ESS), our (proprietary) stochastic asset model. This type of model is known as an economic scenario generator and uses probability distributions to project a range of possible outcomes for the future behaviour of asset returns and economic variables. Some of the parameters of the model are dependent on the current state of financial markets and are updated each month (for example, the current level of equity market volatility) while other more subjective parameters do not change with different calibrations of the model.

Key subjective assumptions are the average excess equity return over the risk-free asset, the volatility of equity returns and the level and volatility of yields, credit spreads, inflation and expected (breakeven) inflation, which affect the projected liability and bond returns. The output of the model is also affected by other more subtle effects, such as the correlations between economic and financial variables.

Our expectation (i.e. the average outcome) is that long term real interest rates will gradually rise from their current low levels. Higher long-term yields in the future will mean a lower value placed on liabilities and therefore our median projection will show, all other things being equal, an improvement in the current funding position (because of the mismatch between assets and liabilities). The mean reversion in yields also affects expected bond returns. The impact of the yield reversion assumption is illustrated in the standard results charts that we produce using the model output.

While the model allows for the possibility of scenarios that would be extreme by historical standards, including very significant downturns in equity markets, large systemic and structural dislocations are not captured by the model. Such events are unknowable in effect, magnitude and nature, meaning that the most extreme possibilities are not necessarily captured within the distributions of results.

Given the context of this modelling, we have not undertaken any sensitivity analysis to assess how different the results might be with alternative calibrations of the economic scenario generator.

The returns presented here are time weighted returns over the specified period and are unaffected by the timing of any contributions received or pensions paid over that period. Such returns are, in general, a poor estimator of money weighted returns, which are sensitive to the timing of cashflows.

The probability that a specific asset return will be exceeded will not usually equate to the probability that some funding plan based on this return will be sufficient to meet all the pension payments. Complex interactions between the assets, yields and cashflow timings can mean that the two probabilities are materially different, especially for more mature schemes.

We would be happy to provide fuller information about the scenario generator and the assumptions used, and the sensitivities of the results to some of the parameters, on request.

Modelling liabilities

We model scheme liabilities approximately by assuming that real and fixed liabilities can be represented by long dated inflation linked and fixed interest gilts respectively. It is possible that the proxy liabilities mis-state the true sensitivity of the scheme liabilities to changes in interest rates and inflation.

This report complies with the Technical Actuarial Standards (TASs): TAS100.

Appendix 3 – Indicative timetable

An indicative timetable covering the recommendations set out in this paper is provided below. The final timetable will be agreed in discussion with Officers and the Committee.

Recommendation	Timing
Rebalance from gilts to multi-asset credit and gilts	Immediate
Ask LCIV to confirm plans for private debt	Immediate
Confirm commitment to UK Housing Fund (subject to appropriate due diligence)	Q1 2023
Select low carbon global equity funds	Q2 2023
Select global property manager	Q3 2023
Invest in UK and global property funds	Q3-Q4 2023
Review Protection portfolio	Q4 2023
Review options for building infrastructure portfolio	Q4 2023 – Q1 2024

Appendix 4 – Forestry/Timberland

Forestry, or Timberland, investments involve the purchase of plantations and naturally occurring forests to grow and harvest wood. Investors generally own the forest, including the land it is on, entitling them to the financial returns generated from the forest, whether this is capital appreciation or income from selling forestry products, such as timber. Forest owners can also take credit for the carbon taken out of the air by the forest, given they now own that stored carbon.

What are the returns and what drives them?

Returns from forestry are largely driven by:

1. Capital appreciation from tree growth – as trees grow, all else being equal, they become more valuable as the quality and volume of what can be produced from them increases.
2. Income from the sale of forestry products – as trees are felled and sold, this generates income for investors.
3. Change in market value of the land – the appreciation of the value of land has been a historic driver of returns for this asset class.

Forestry investments have historically provided strong diversification from traditional asset classes since trees grow regardless of financial market conditions. That said, a portion of the return on forestry is linked to the overall economy, as an expanding economy typically leads to increased demand (and prices) for timber. There is also potential for some inflation linkage, since timber prices tend to have some correlation with prices of end products featured in the calculation of the major inflation metrics. This diversification and potential inflation protection provide two attractive characteristics for investors.

What are the risks?

As with any investment, there are a range of financial risks. An obvious risk is in relation to the price of timber, as your investment will be worth less if timber prices are lower. However, one of the benefits of the asset class is the flexibility it can offer – when prices are low, felling can be reduced, and trees left to grow until prices rebound.

Forestry investments also face the risk of natural disasters, and there are some increased risks as a result of climate change. Most notably, some areas are seeing reduced rainfall, and other areas are experiencing too much rain. Whilst there has been an upsurge in wildfires in recent years, which could increase the risk of damage to investment value, most wildfires occur in unmanaged forests. Historically, the impact on the asset class from fire has been relatively low: institutionally managed forests have fire breaks and other measures in place to prevent the spread, have tinder regularly removed and limit use by the public; and value may be salvaged from some of the damaged wood. Insurance may also help to protect investors but comes at a cost.

Finally, there is the risk for an investor with a net zero ambition that the forest is not being managed in a way to sustainably capture carbon in an approved manner for the purpose of generating carbon credits, e.g. growing new trees and/or a net increase in tree biomass.

Will it help you achieve net zero?

A significant benefit of an investment in forestry from an emissions perspective is that it is a very low carbon-emitting asset class from a scope 1 and 2 perspective. This can form a key part of a plan to achieve a net zero ambition, particularly when moving assets from high emitting investments, without considering areas such as the removal of carbon from the atmosphere, or "sequestration", and carbon credits.

Having said that, the act of growing a tree sequesters and stores carbon from the atmosphere within the mass of the tree. Therefore, it makes sense that this activity should earn carbon credits for the owner of the tree. The more trees on the Earth, and the longer they live, the more carbon is stored within the biomass of trees, and out of the atmosphere, helping to reduce the severity of climate change.

Appendix 5 – LGPS consultations

Levelling-up

The latest of these is the Government's 'Levelling up' white paper issued in early 2022, which states:

"There is huge potential for institutional investment to support levelling up, across infrastructure, housing, regeneration and SME finance. Institutional investors currently hold UK pension assets of over £3.5tn. Within that, the Local Government Pension Scheme (LGPS) has total investments of over £330bn, making it the largest pension scheme in the UK. Only a tiny fraction of these funds are currently allocated to local projects. If all LGPS funds were to allocate 5% to local investing, this would unlock £16bn in new investment.

The UK Government has committed itself to removing obstacles and costs to making long-term, illiquid investments in the UK. LGPS funds are investing in a wide range of existing UK and global infrastructure, largely through the eight LGPS asset pools. A dedicated infrastructure platform (GLIL) has been established jointly by the Northern and Local Pensions Partnership Investments and LGPS asset pools, and has around £2.5bn committed, with investments including Anglian Water, Forth Ports (including Tilbury) and Clyde Windfarm.

Infrastructure investment by the LGPS has grown from under £1bn in 2016 to £21bn in 2021. To build on this established capacity and expertise and ensure that all LGPS funds play their full part, the UK Government is asking LGPS funds, working with the LGPS asset pools, to publish plans for increasing local investment, including setting an ambition of up to 5% of assets invested in projects which support local areas.

The new UK Infrastructure Bank, based in Leeds, has a mandate to catalyse investment to support regional and local economic growth, and will help increase the capacity and capability of local authorities to deliver infrastructure in their areas. It will also co-invest, offer guarantees through the existing UK Guarantees Scheme, and provide a range of debt, equity and hybrid products.

It is committed to expanding institutional investment in UK infrastructure, including exploring opportunities with the LGPS."

Details are still to be fleshed out. However, our current understanding of the above is that:

- 'Local' means UK wide (not local area)
- Funds will be mandated to have a plan to reach a 5% allocation to infrastructure
- 5% is not a maximum
- The government is looking for 'new' investment - so existing allocations may not count.

Update

The Chancellor of the Exchequer provided a Statement on 9 December 2022 in which he announced that the government will be consulting on:

- New guidance on LGPS asset pooling (early 2023);
- Requiring LGPS funds to ensure they are considering investment opportunities in illiquid assets such as venture and growth capital, as part of a diversified strategy.

TCFD

We also await final regulations setting out how LGPS funds will be expected to comply with the Taskforce for Climate Related Financial Disclosures ("TCFD") following the consultation exercise carried out late last year.

Appendix 6 – Inflation hedging characteristics and considerations

The table below provides a summary of the inflation hedging characteristics of the main asset classes.

	Short-term inflation hedge	Long-term inflation hedge	Rationale
Equities	Weak	Strong	• Equities are expected to implicitly provide an inflation hedge as companies are assumed to pass on cost increases to consumers. • In the short-term, however, an increase in the rate at which investors discount equity cashflows, due to expectations of higher risk-free rates in response to inflation, can offset the positive impact of higher earnings, whilst it also takes time for companies to pass on cost increases. • Sectors and stocks with a proven track record of maintaining profit margins, due to pricing power and productivity growth, may outperform, as might sectors explicitly linked to the inflation-generation process, such as basic materials and energy. Financials may also derive an indirect benefit from rising rates. • Over the longer-term, and in most instances, equities have tended to provide positive real returns.
Property	Moderate	Strong	• The extent to which property performs as an inflation hedge depends on the level of inflation linkage in rents and rent negotiations. • We would expect long-lease property to provide a better inflation hedge than core property as l**ong-**lease **properties** often have explicit inflation linkage which is less common core property markets. • Though rents are positivel**y** correlated inflation, there are reasons why the hedge may be less e**ffective** over the short-to-medium term: as with equities, an increase in the rate at which investors discount the earnings stream from a property may offset the impact of rising rents; • **Furthermore,** while some properties may have annual rent reviews, many are reviewed every 3, or even 5, years; and, rents explicitly linked to inflation are usually subject to caps (and floors). • Over the longer term, property has tended to provide positive real returns.
Infrastructure	Moderate	Strong	• The degree of inflation-linkage infrastructure provides depends on the mix of assets. • Utilities tend t**o** hold monopoly positions in the provision of essential services, and so provide implicit linkage to general price rises, but are subject to regulatory review and intervention with regards the level of profits allowed. • Renewable energy infrastructure offers relatively reliable cash flows which are exposed to general energy prices and so should provide a degree of inflation hedging. • Public-private partnerships (PPP) comprise long-dated government-backed leases against social infrastructure, which tend to provide a large degree of explicit inflation-linkage.

Multi-asset credit	Moderate	Moderate	• Multi-asset credit, which can access a broad spectrum of credit assets (i.e. floating-rate loans. ABS and CLOs), is likely to have materially lower interest-rate duration than investment-grade approaches. This, and higher credit spreads due to investing in speculative-grade credit assets, should provide a degree of insulation against inflation, and subsequent rises in yields, and also provide higher long-term returns.
Investment-grade asset-backed securities	Moderate	Moderate	• Being floating-rate, i.e. coupons regularly reset in-line with prevailing cash rates, asset-backed securities should have similar inflation-hedging characteristics to cash.
Index-linked gilts	Strong	Moderate	• As the coupons on index-linked gilts are revalued in-line with inflation (RPI until 2030, CPIH thereafter), they provide an explicit hedge against future rises in inflation. • However, this explicit protection comes at a price and negative real yields across the index-linked gilt curve (until very recently) guaranteed a negative real return from holding index-linked gilts. We also think UK index-linked gilts are vulnerable to a price correction due to RPI reform in 2030, when index-linked gilts will be re-referenced from RPI to CPIH, which has typically been 1% p.a. lower.
Conventional gilts	Weak	Weak	• Not only does inflation erode the real value of nominal bond coupons, yields should rise to take account of higher inflation and interest rate expectations, increasing the rate at which cashflows are discounted, reducing the price of a bond. • Longer duration bonds are more sensitive to an equivalent shift in yields than short-duration bonds, though specific impact depends on yield movements across the curve.
Investment-grade corporate bonds	Weak	Weak	• Investment-grade corporate bonds are subject to similar impacts as conventional gilts and capital values are also impacted by changes in credit spreads. • Inflation could potentially have a negative impact on credit spreads (i.e. cause them to widen). Companies that are able to pass on cost rises would see little impact on their credit risk profile, but severe inflation would be likely to cause credit spreads to widen due to broader economic impacts.