HYMANS # ROBERTSON

Protection asset portfolio review

Leicestershire County Council Pension Fund

- Philip Pearson
- 26 July 2023

Hymans Robertson LLP® is a limited liability partnership registered in England and Wales with registered number OC310282. Authorised and regulated by the Financial Conduct Authority and licensed by the Institute and Faculty of Actuaries for a range of investment business activities.

Agenda

- Objectives and current portfolio composition
- Key findings
- Recommendations

2

ယ

Objectives/current portfolio

- Protection asset portfolio objective to protect the funding position by reducing investment risk and mitigating the impact of fluctuations on the value of the liabilities
- Many of the Fund's other assets also provide protection against a range of key risks
- Current portfolio comprises investment grade corporate bonds ("IGC"), index-linked bonds ("ILB") and cash (see table below), and currency ("FX") hedging provided by Aegon and selected underlying managers

Manager	LGPSC	Aegon	Aegon	Cash Funds
Fund	Investment Grade Credit	Index-linked Fund	Short Dated Climate Transition Fund	Pooled cash funds Aegon collateral account
Active/Passive	Active	Active	Active	Active
Benchmark	LGPSC Corp Index + 0.8%	FTSE All Stocks Index Linked Index	SONIA 3 Month +1.25% (GBP)	SONIA 3 Month
Target outperformance	0.80% (rolling 3 year period, net of fees)	0.30% (rolling 3 year period, gross of fees)	1.25% (rolling 3 year period, gross of fees)	0.00%
Target allocation	2.25%	4.5%	0.5%	0.75%
Inception date	Apr 20	Dec 13	Mar 21	Mar 16

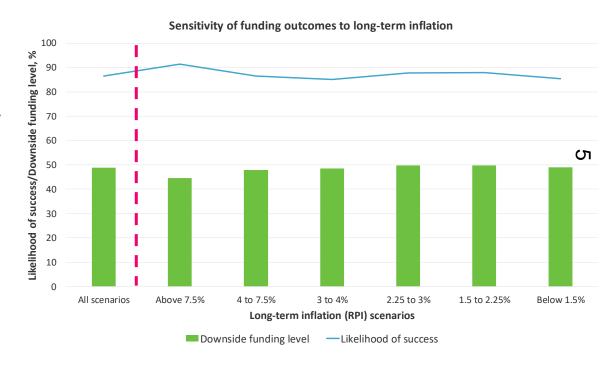
Key findings

- Overall asset portfolio affords a high-level of protection in most macroeconomic scenarios
- Structure of protection portfolio generally appropriate
 - Asset mix appropriate
 - Performance largely in line with expectations
 - Competitive fee arrangements
- Asset allocation scope to improve outcomes by increasing exposure to IGC vs ILB
- Regional allocation current allocation reasonable
- FX hedging supportive of the policy and structure of FX hedging arrangements, but scope to apply the policy more consistently
- Active vs passive all protection assets managed actively which is also considered appropriate



- Level of protection afforded by overall portfolio assessed using ALM results from 2022 valuation
- Specific focus on risks posed by inflation, interest rates and equity returns
- Key metrics
 - Likelihood of success: probability of being fully funded in 20 years time
 - Downside funding level: average funding level in 3 years in worst 5% of the 5000 scenarios modelled
- Level of protection generally high

 a prolonged period of very low yields (real yield below -1.5%) or negative returns on risk assets such as equities would be of concern



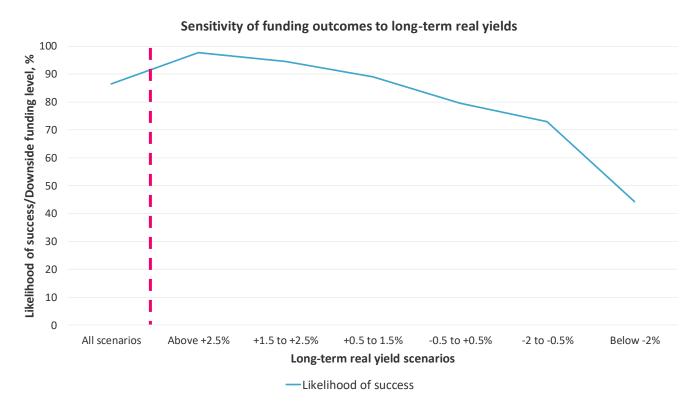
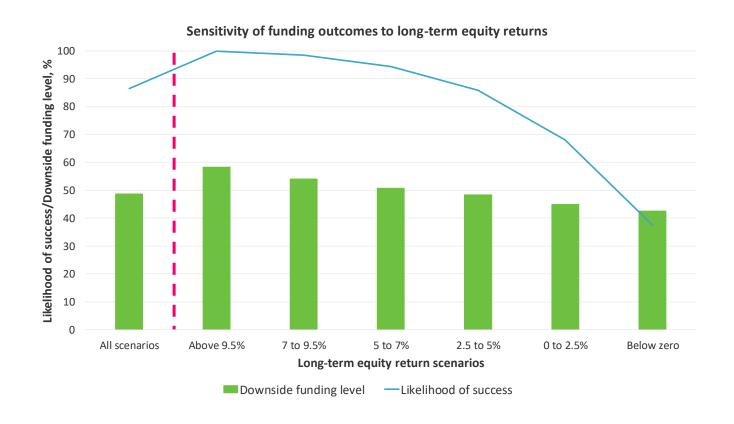


Chart shows the sensitivity of the Likelihood of Success ("LoS") funding metric to variation in long-term real yields ie the yield on index-linked gilts. Long-term assumed to be 20 years.

The 20y real yield is currently c1%. If it was to average this level over the long-term, the LoS would settle at c90%

ത



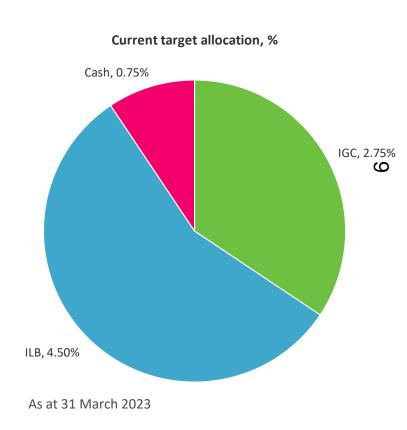
- Interest rates and inflation have risen sharply since 2022; if these conditions persist this
 might alter the relative attractiveness of protection vs return-seeking assets
- There may then be a case to increase the size of the protection portfolio, and consider including alternative protection assets – both outside the scope of the current review
- Any increase would be constrained by the fact that the Fund is open-ended and needs to maintain a significant allocation to return seeking assets to fund future liabilities at an affordable level of contributions
- Recommendation at the next strategy review, consider the case for increasing the target allocation to protection assets





Asset mix

- Current portfolio comprises ILB, IGC and cash
- Optimal mix sensitive to interaction between assets and liabilities
- ALM undertaken for typical LGPS funds indicates optimal mix (ex cash) is 67% IGC, 33% ILB
- Recommendation increase allocation to IGC, but only to roughly equal weights:
- IGC: 3.75% (+1%)
- ILB: 3.5% (-1%); mandate includes IGC
- Recommendation defer the reallocation until the short-term outlook for IGC vs ILB improves
- Recommendation consider alternative protection assets – such as real asset backed, investment grade debt; ABS; gold - at the next strategy review, especially if the decision is taken to increase the allocation to protection assets



Regional allocation

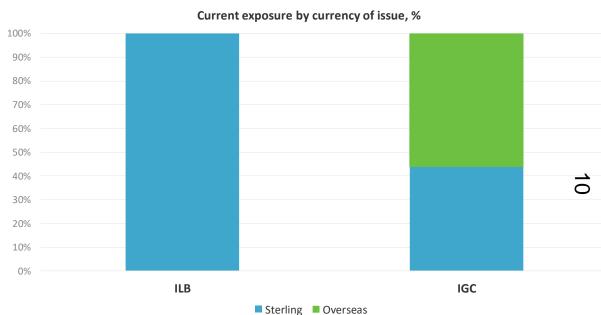
Index-linked bonds (largely sovereign issuance)

Sovereign bond yields normally highly correlated

Correlations can fall at times of market stress; an allocation to overseas bonds can improve downside protection

Aegon can invest overseas but generally has not done so

Recommendation - engage with manager to ensure that mandate flexibility is being used appropriately



Regional allocation

Investment grade corporate bonds

Two dimensions to regional allocation: currency of issue and domicile of issuer

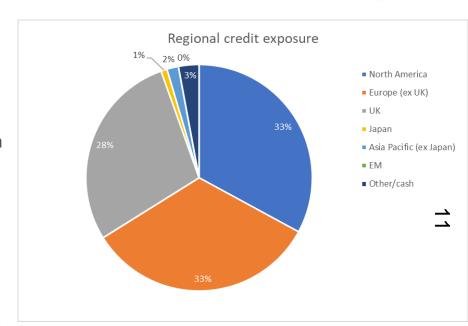
Corporate bond yields normally highly correlated, but correlations can fall at times of market stress. At such times, an allocation to bonds denominated in foreign currencies can diversify risk. It also:

- Substantially increases the size of the opportunity set
- May also improve liquidity
- Enables active managers to exploit relative value opportunities such as credit spread differentials on bonds from the same issuer

History suggests that increasing the allocation to foreign currency bonds improves portfolio efficiency (ie return/unit of risk)

We are comfortable with the current combined allocation (see chart, previous page)

Current portfolio well diversified by issuer domicile (see chart right)



FX hedging

We are supportive of the current FX hedging policy:

- Fully hedge FX exposure on public debt investments
- Hedge a proportion (target 30%) of FX exposure on equity and real asset investments
- Currency exposure is not hedged if it is being actively managed as a source of added value (as is the case in some targeted return strategies for example)
- Rely on underlying managers to hedge FX exposure where possible, in order to reduce hedging costs and operational risks to the Fund
- Employ a specialist currency manager (Aegon) to run a standalone programme to hedge the remaining FX exposures where it is practical and cost effective to do so

Aegon is also mandated to vary the actual hedging ratio as a source of added value, which the manager has been successful in doing

High yield debt investments (multi-asset credit, private debt) do not fit neatly into the above framework

Recommendation – determine an appropriate level of FX hedging of high yield debt, in conjunction with the currency manager and investment advisor

FX hedging

Current FX hedging arrangements are not fully aligned with this policy:

- Some exposures are unhedged LGPSC Climate Multi-Factor Equity, Private Equity, Infra and Private Debt and Quinbrook Infra
- For some investments, only USD exposure is hedged Adams Street PE, Abrdn PE, JPM Infra, IFM Infra, Stafford Timberland
- Some equity/real asset exposures are fully hedged Aspect Targeted Return, LaSalle Real Estate, M&G Distressed Debt

FX hedging can be complex and costly, so a **pragmatic approach is essential**, but we believe there is scope to apply the current policy more consistently by:

- Requesting GBP hedged share classes from underlying managers, and/or
- Extending the scope of the Aegon programme

Recommendation - consider the proposed changes to FX hedging arrangements and the associated implementation options, in conjunction with the currency manager and investment advisor

Recommendations-1

In relation to the existing protection assets, we recommend the Fund:

- Adopts a more balanced exposure to ILB and IGC, with the former allocated 3.5% (-1%) of total Fund assets and the latter 3.75% (+1%)
- Defers the reallocation of capital between ILB and IGC until the short-term outlook for the latter improves
- Engages with Aegon regarding its ILB mandate to ensure that the flexibility to invest in overseas bonds is being used to enhance returns and/or improve downside protection at times of market stress
- Determines an appropriate level of FX hedging for the Fund's high yield debt investments, in conjunction with its currency manager and investment advisor
- Considers the proposed changes to FX hedging arrangements and, in conjunction with its currency manager and investment advisor, determine whether to use hedged share classes provided by the underlying managers or extend the Aegon FX hedging programme
- Final decisions on FX hedging to be delegated to Officers and reported back to the Committee at a future meeting



Recommendations-2

At the next strategy review, we recommend the Fund:

- Reviews the target allocation to protection assets in light of the path of interest rates and government bond yields over the remainder of 2023
- Considers the case for introducing alternative protection assets to improve the efficiency of the protection portfolio and the level of downside protection it provides
- Decarbonisation of the Fund's protection portfolio may also require focus during 2024

Addressee, purpose and limitations

This paper is addressed to the Investment Sub-Committee ("ISC") of Leicestershire County Council Pension Fund ("the Fund"). The purpose of this paper is to present the findings of our review of the structure of the Fund's protection asset portfolio which includes index-linked bonds ("ILB"), investment grade corporate bonds ("IGC"), cash and a currency ("FX") hedging programme.

This paper 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.

Please note that Hymans Robertson LLP and our group companies have a wide range of clients some of which are fund managers who may be included in and/or recommended to you as part of this exercise. We have a research team that advises on shortlisting fund managers in manager selection exercises, which is separate from our client and other relationships with fund managers and therefore we do not believe there will be a conflict that would influence the advice given. We would be happy to discuss this and provide further information if required.

HYMANS **♯** ROBERTSON

Thank you

The material and charts included herewith are provided as background information for illustration purposes only. This PowerPoint presentation is not a definitive analysis of the subjects covered and should not be regarded as a substitute for specific advice in relation to the matters addressed. It is not advice and should not be relied upon. This PowerPoint presentation contains confidential information belonging to Hymans Robertson LLP (HR) and should not be released or otherwise disclosed to any third party without prior consent from HR. HR accept no liability for errors or omissions or reliance upon any statement or opinion herein.

© Hymans Robertson LLP. All rights reserved.

This page is intentionally left blank