HYMANS ROBERTSON

Wiltshire Pension Fund

Cashflow projections

Steven Scott FFA

16 January 2023
For and on behalf of Hymans Robertson LLP

Use the menu bar above to navigate to each section.

Contents

In this report:

Executive summary

This paper is addressed to Wiltshire Council as the Administering Authority to the Wiltshire Pension Fund ("the Fund"). The paper considers different future projections of the Fund's cashflows under a range of different scenarios. The analysis and projections will help the Fund better understand its current and potential future cashflow position and is part of its management of risk in this area.

From the analysis and projections set out in this paper, the following conclusions can be drawn:

- In the absence of investment income, the Fund is likely to be cashflow negative by 2030 allowing for an expected pension increase of 10.1% in April 2023 and inflation thereafter that is in line with the valuation assumption.

- The cashflow position of the Fund is sensitive to future levels of inflation. If higher inflation continues to persist into 2023 and 2024, the Fund may become cashflow negative in the next couple of years. This is exhibited in our recession scenario. This highlights the importance of reviewing the cashflow position on a regular basis in a high inflation environment.

- In the longer-term, the most significant risk to the fund (in respect of its cashflow position) is a stagflation scenario, where inflation remains elevated for a longer period of time. Under this scenario, the Fund is cashflow negative in the next couple of years, with the gap increasing to a material level in the longer-term.

- No allowance has been made in the analysis for investment income. The sensitivity analysis highlights the importance of investment income in meeting any future cashflow shortfall.

Background and inputs

What is cashflow negativity and does it matter?

Every month, the Fund receives income via contributions and pays out benefits to members. Historically, the benefits have been paid out of the contribution income with any excess being invested. This is how the Fund's asset value has built up over time (along with investment returns).

Over time a pension fund will mature and the level of benefit payments will start to exceed contribution income. At this point, a pension fund is considered "cashflow negative".

Being cashflow negative itself is not unexpected for a pension fund; the assets that have been accrued are for the purpose of paying benefits. However, if the transition to being cashflow negative is not monitored and managed effectively, it can pose a liquidity risk and the Fund may become a forced seller of assets.

At the 2022 valuation, the focus on cashflow is greater given the likely significant increase in benefits at April 2023 due to rising inflation.

Knowing when the Fund is likely to become cash flow negative is helpful as it can have implications for both the funding and investment strategy:

- Having cash available to meet the Fund's primary objective of paying member benefits
- The ability to maintain stable contributions over time and withstand volatility from investment markets
- Understanding the level of cash balance that needs to be retained while avoiding a drag on investment returns
- Avoiding the risk of being a forced seller of assets at inopportune times
- Making the most efficient use of income generated by Fund assets
- Implementing optimum rebalancing and cash management policies

This paper explores the Fund's cashflow position under a variety of different scenarios to inform the approach to cashflow management

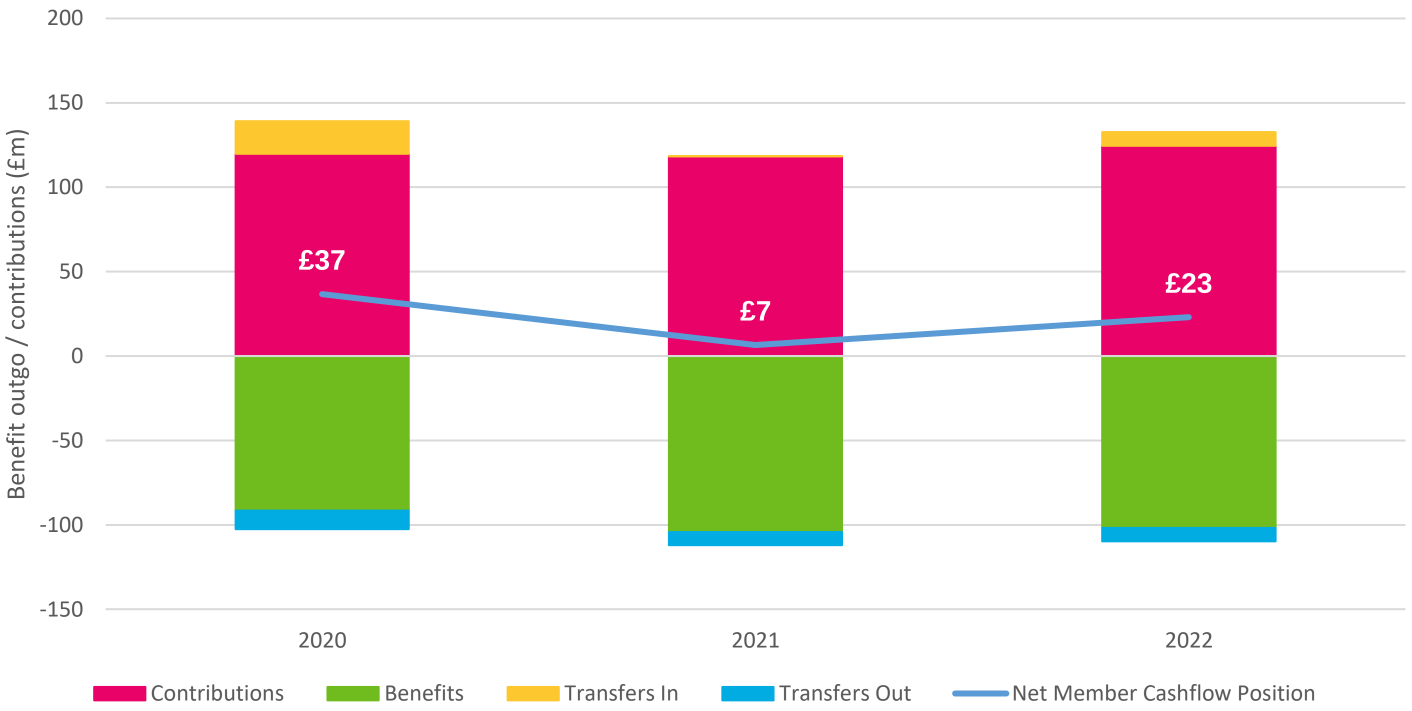
Recent cashflow position

Using the annual report and accounts for years ending 2020, 2021 and 2022, we have analysed the recent cashflow position for the Fund.

The chart shows the absolute value of contribution income and benefit outgo (bars) and the net cashflow position (line and figures).

During this period, the Fund remained cashflow positive, ie income exceeded outgo.

Transfers in and out of the fund can significantly affect the cashflow position. In 2021/22, there were c.£8m of transfers into the Fund which helped increase the net cashflow position, these were then offset by c.£8m of transfers out in the same period.



The cashflow position has remained positive in recent years.
The current net cashflow position is around £23m (contributions exceeding benefits).

What are the cashflows of the Fund

In this paper we consider the main cashflows in and out of the Fund over the next 20 years.

The Fund’s primary sources of income are:

- Contributions from employers in the Fund
- Contributions from employee members in the Fund
- Income streams generated from the Fund’s investments

Contributions paid are estimated based on:

- The 2022 valuation payroll
- The 2022/23 contribution rates currently in payment (equivalent to an average of 25.3% of pay).
- The aggregate of all proposed employer contribution rates payable from 1 April 2023 to 31 March 2026. Thereafter the contribution rate has been assumed to remain stable up to year 20.

The Fund’s outflows are the benefits payable to the members and their dependants. These include:

- Retirement lump sums paid to active and deferred members on retirement
- Retirement pensions paid to pensioners and their dependents
- Death in service benefits and ill health benefits.

Transfers in and out of the Fund by individual members are not usually a significant source of income or outflow and typically balance out over time.

The projected cashflows are sensitive to a number of assumptions. The most significant are:

- Level of future benefit increases (all LGPS benefits are index-linked and increase in line with Consumer Price Index (CPI) inflation)
- Level of current and future payroll (determines the amount of contributions received)

We have prepared future cashflow projections under a range of different inflation and payroll scenarios to inform decision making. This helps the fund understand the sensitivity of its cashflow position to these sources of uncertainty and make appropriate management plans.

Data, assumptions and methodology

Membership data

We have used the membership data provided for the 2022 valuation of the Fund.

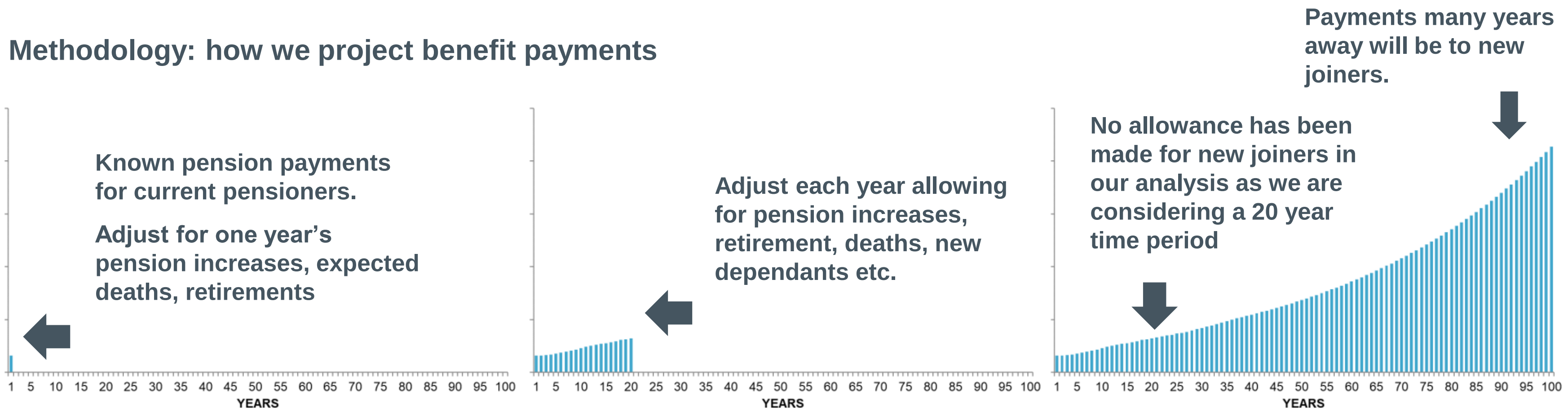
Assumptions

The demographic and financial assumptions are in line with those adopted for the 2022 valuation of the Fund unless stated otherwise.

Further information on the membership data and assumptions is detailed in the 2022 valuation initial results report dated August 2022.

Allowance for benefit outgo in respect of benefits yet to be accrued by current active members is included in the projection, however, given the relative short timeframe considered, no allowance has been made for benefit outgo in respect of accrual by members yet to join the scheme.

Methodology: how we project benefit payments



Methodology: projecting contribution income

- Payroll is assumed to increase in line with the valuation assumption of 3.2% pa
- Employer contributions are assumed to be in line with the pattern set out on page 7
- Employee contributions are based on the weighted average for the Fund at the 2022 valuation (6.3% of pay).

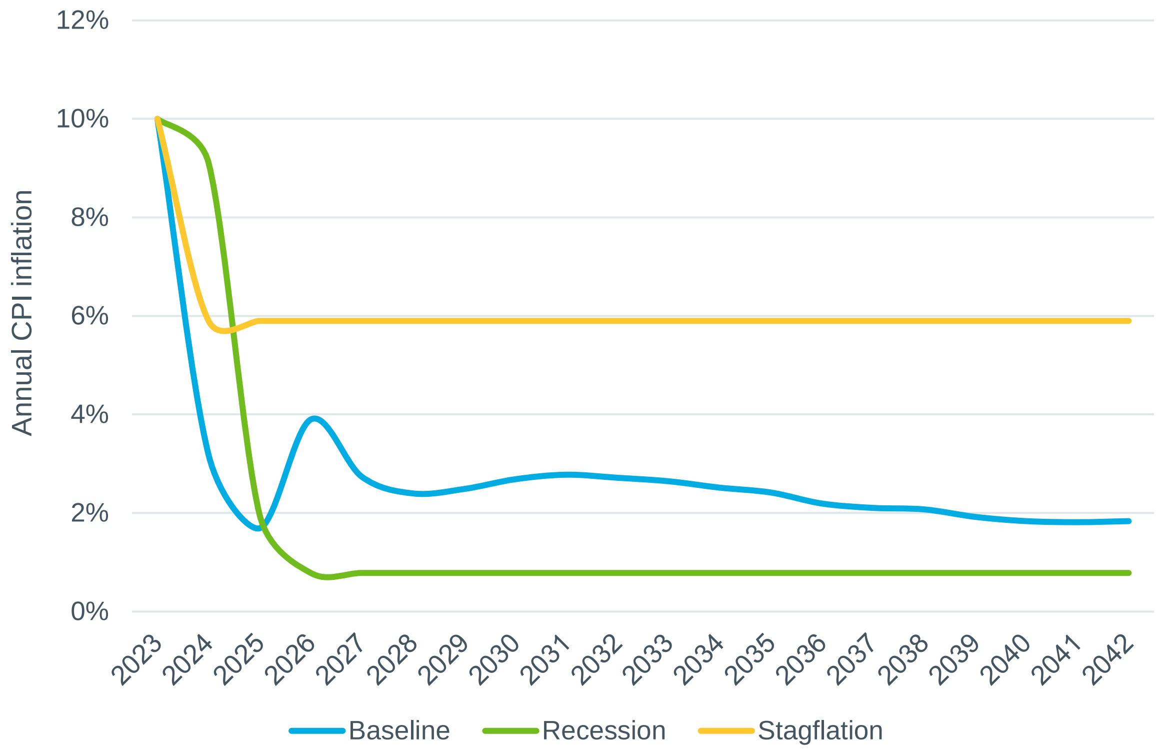
Scenarios explored

Future CPI inflation

Given the sensitivity of future benefit payments to inflation, we have considered three potential scenarios for future inflation. All scenarios assume a 10% increase in benefits in April 2023:

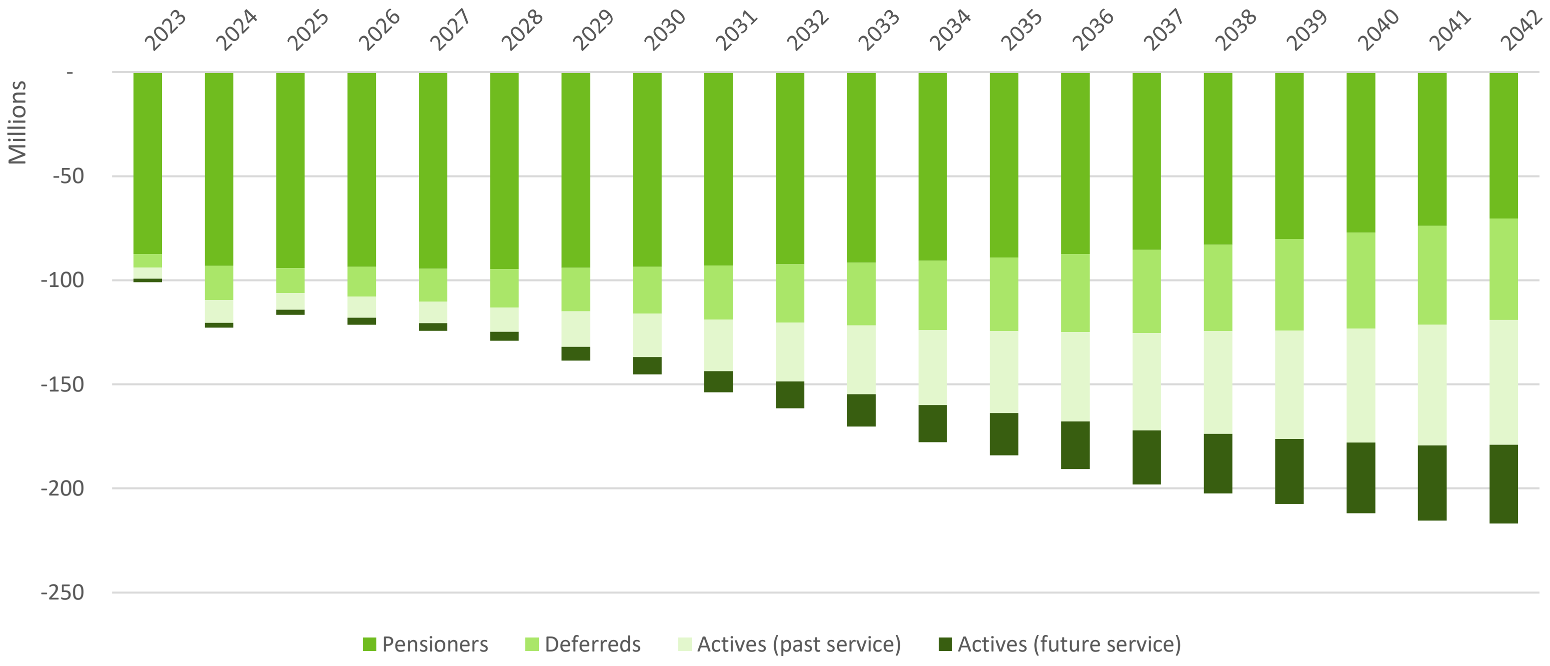
- Scenario 1 (the blue line): this **baseline** scenario represents the median CPI assumption within the Hymans Robertson economic scenario service (ESS) model as at 31 March 2022 (this is the assumption used for the 2022 valuation). This is a combination of short-term market expectations and longer-term expectation that the rate will tend to the Bank of England's 2% target.
- Scenario 2 (the green line): this represents a **recession** scenario, occurring largely due to excess supply over demand as a result of higher energy and food prices. This results in higher inflation in the next 2-3 years but then lower long-term inflation.
- Scenario 3 (the yellow line): this represents a **stagflation** scenario where inflation remains high due to higher energy and food prices.
- Scenario 4 (10% immediate membership reduction) and Scenario 5 (employer exits) both are modelled using the baseline inflation scenario (the blue line).

In each scenario we have modelled the payroll assumption at 3.2% pa



Inflation scenarios

Projected benefit outflows (baseline scenario)



Notes

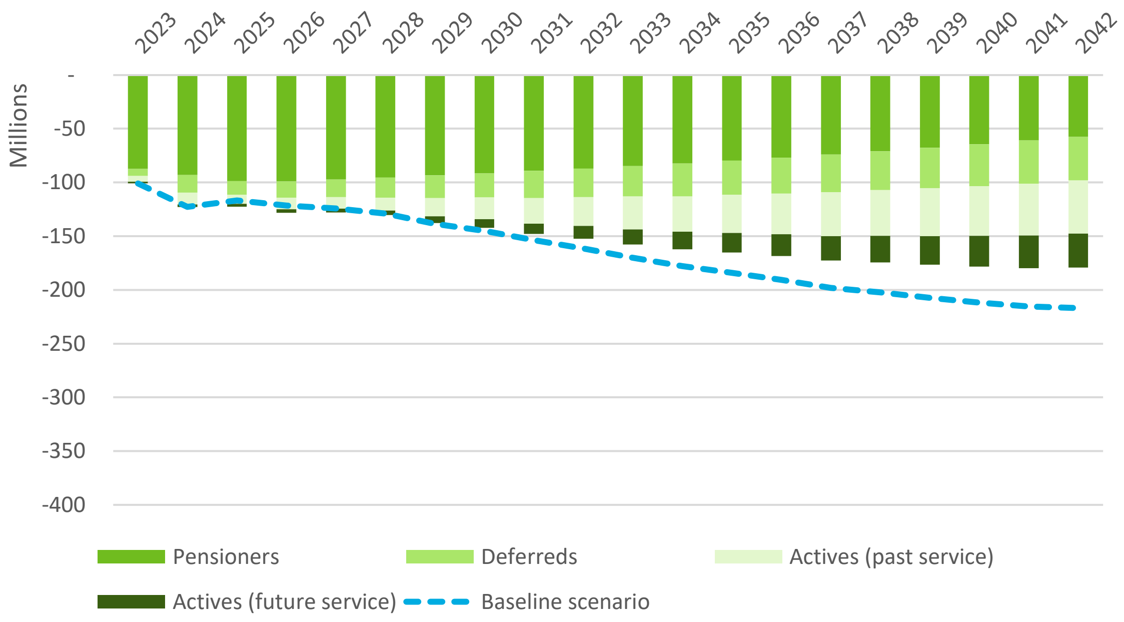
The stepped increase in benefit outflow in 2024 (year 2) is as a consequence of the model assumption that all active members already past their assumed retirement age will retire +1 year after the valuation date. In reality these outflows would be spread across a longer period.

The years along the x-axis refer to the year-end i.e. 2023 means the 2022/23 financial year (from 1 April 2022 to 31 March 2023).

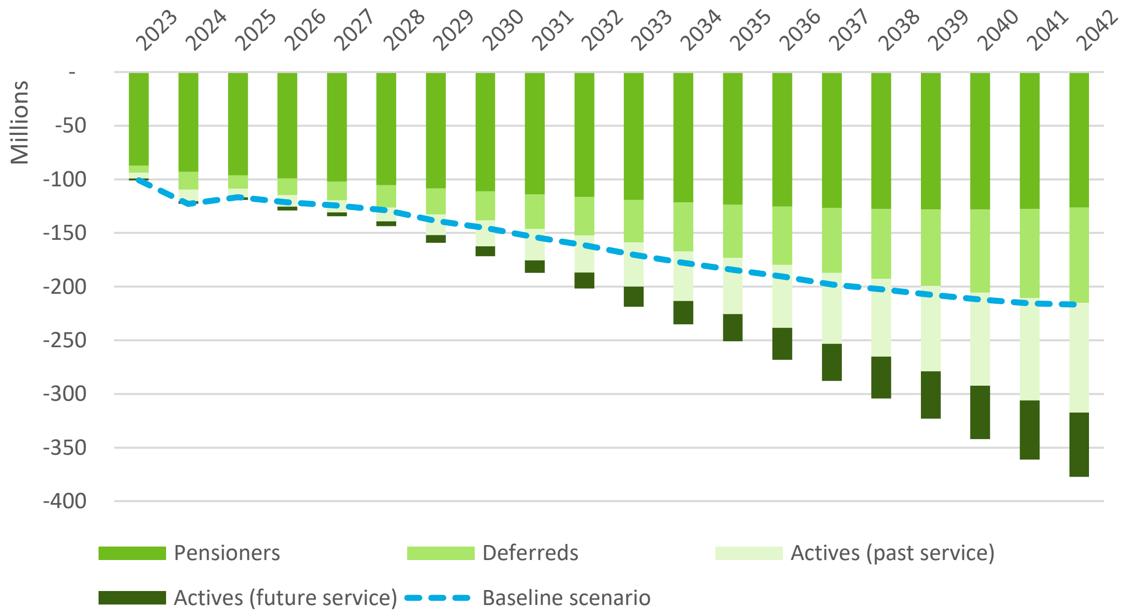
The Fund currently pays around £101m in benefit payments. This is expected to double by 2038.

Projected benefit outflows (alternative inflation scenarios)

Recession

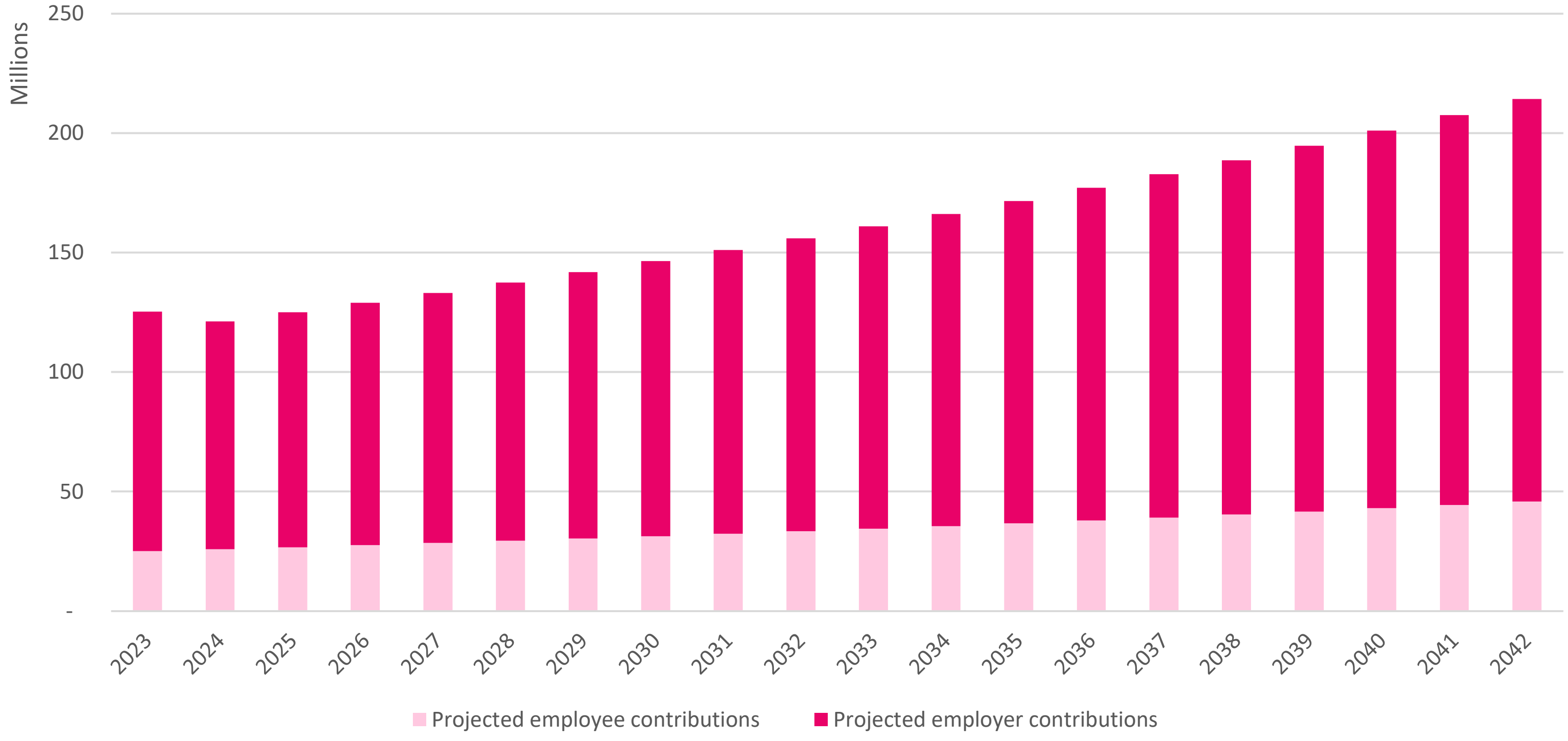


Stagflation



Scenario analysis helps understand the impact inflation may have on future benefit payments – difference of c£198m in annual benefit payments by 2042 between "Recession" and "Stagflation" scenarios

Projected contribution income (all inflation scenarios)

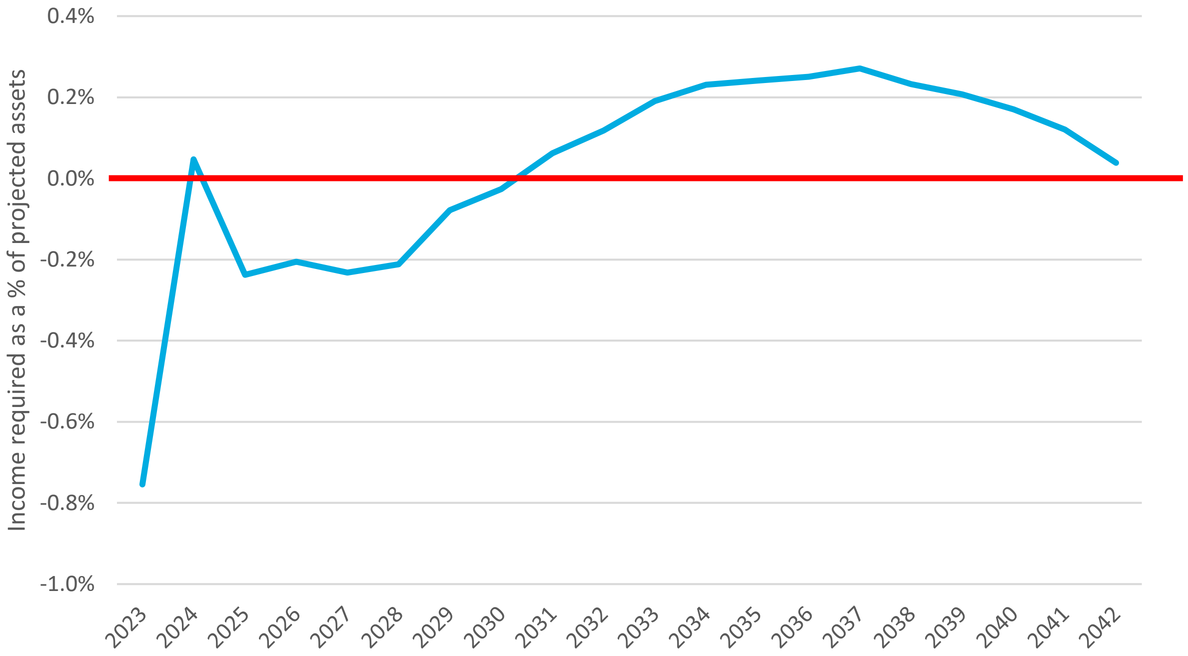


Notes
New entrants are implicitly allowed for in the income cashflow by assuming the payroll grows with the salary growth assumption.

The years along the x-axis refer to the year-end i.e. 2023 means the 2022/23 financial year (from 1 April 2022 to 31 March 2023).

Payroll is assumed to increase at 3.2% pa (in line with the formal valuation)

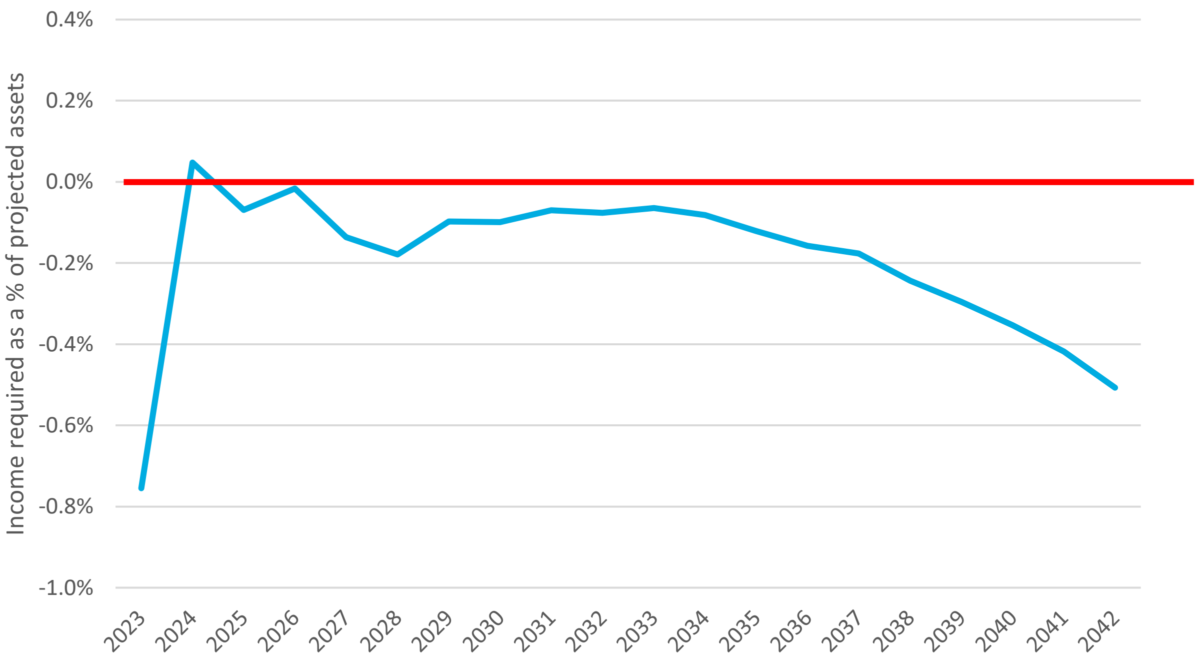
Whole fund net cashflow (baseline scenario)



Benefit outflow is estimated to exceed contribution income by 2031 (we have disregarded 2024 as it is a result of the retirement age assumption – in reality these retirements may be spread over the next 2-3 years). However, the shortfall from contributions would not require a significant level of income from assets (less than 0.3% of asset value)

Assets are assumed to increase at 4.1% pa

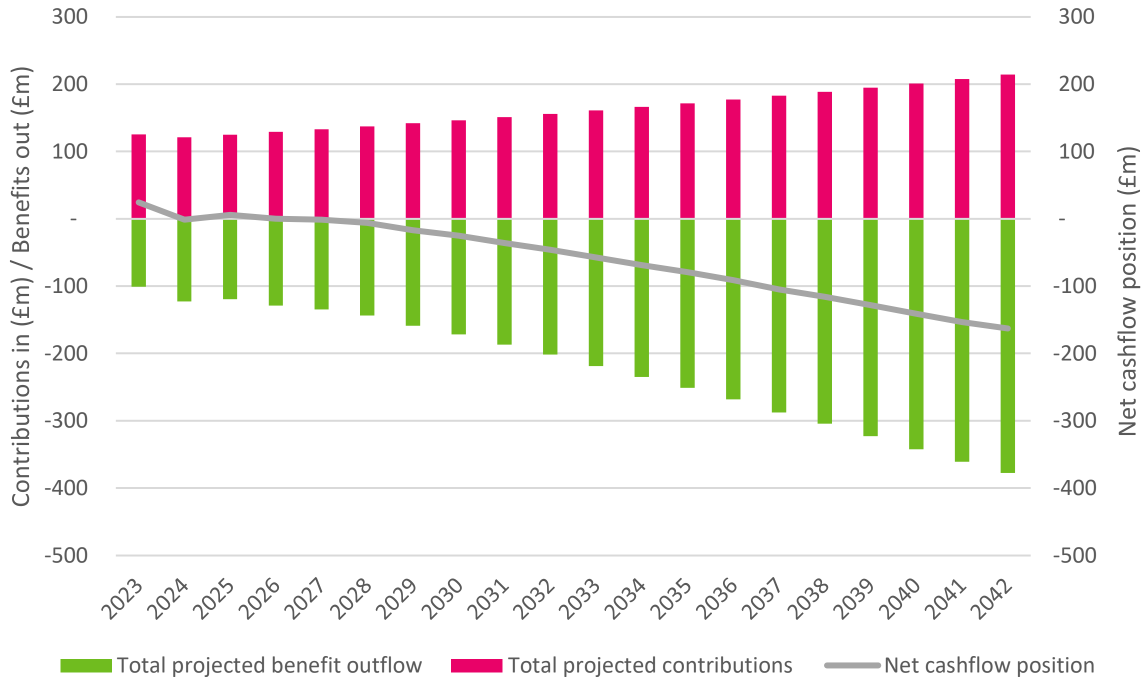
Whole fund net cashflow (recession scenario)

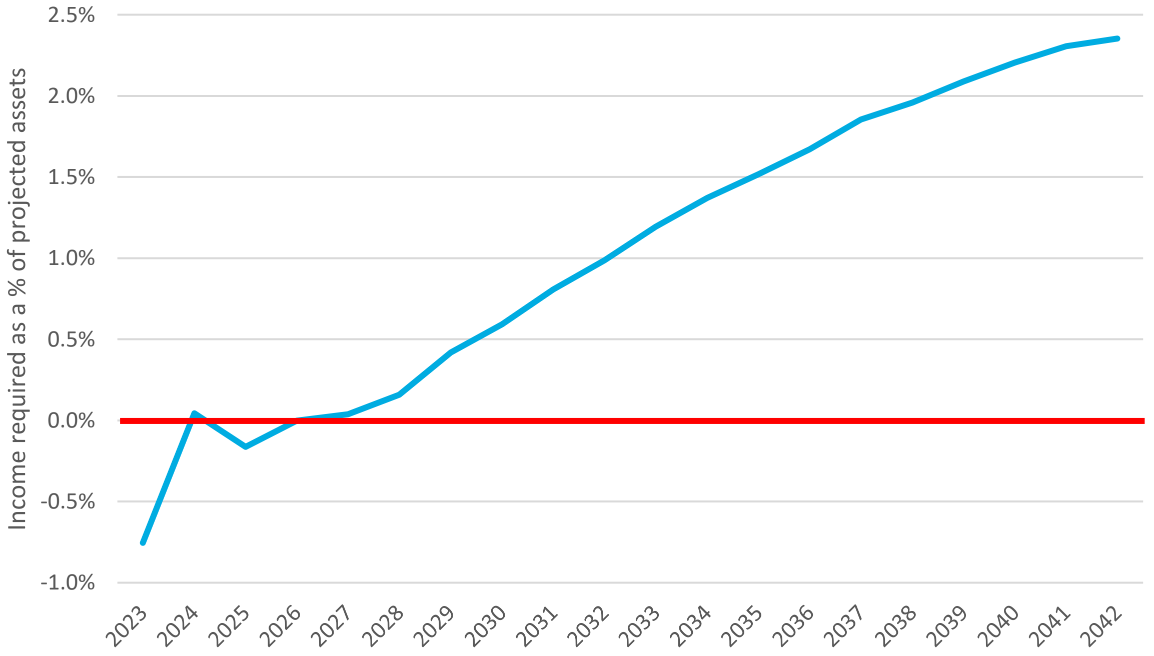


This scenario has higher inflation persisting in the short-term. If this occurs, then the Fund is expected to remain cashflow positive for majority of the period. In the longer term, the lower inflation results in lower benefit payments and an improvement in the cashflow position.

Assets are assumed to increase at 4.1% pa

Whole fund net cashflow (stagflation scenario)



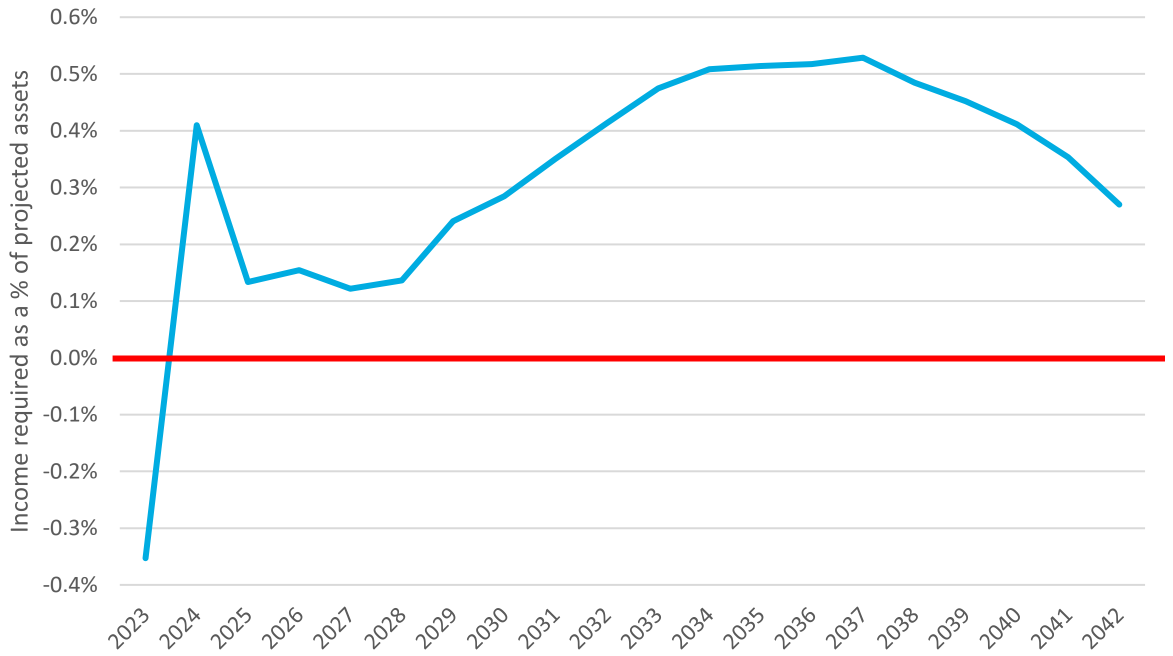


A stagflation scenario would result in cashflow negativity in the next couple of years, with a substantial gap opening up (assuming pay increases of 3.2%) in the longer term. This would need to be managed by a higher level of income from the Fund's assets.

Assets are assumed to increase at 4.1% pa

10% membership reduction scenario

Whole fund net cashflow (10% membership reduction scenario)



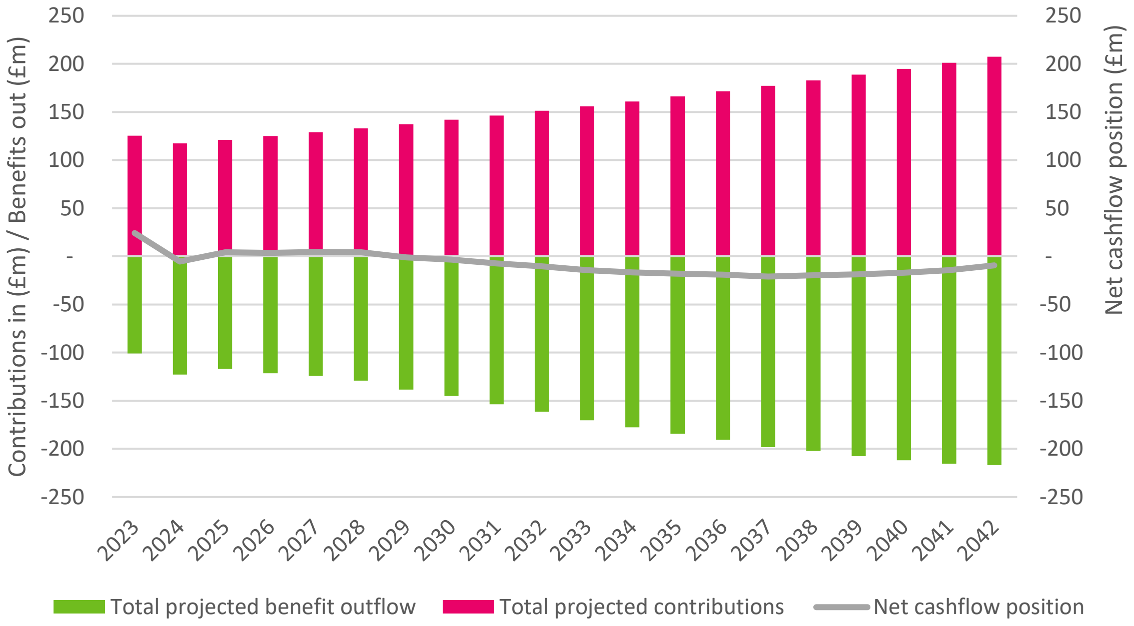
The reduction in payroll / increase in pensioners has an immediate impact on cashflows bringing forward the point of cashflow negativity substantially. The income yield required increases materially. This assumes our median scenario. If this were coupled with stagflation, the extent of cashflow negativity would become extensive over very the short term and grow over time.

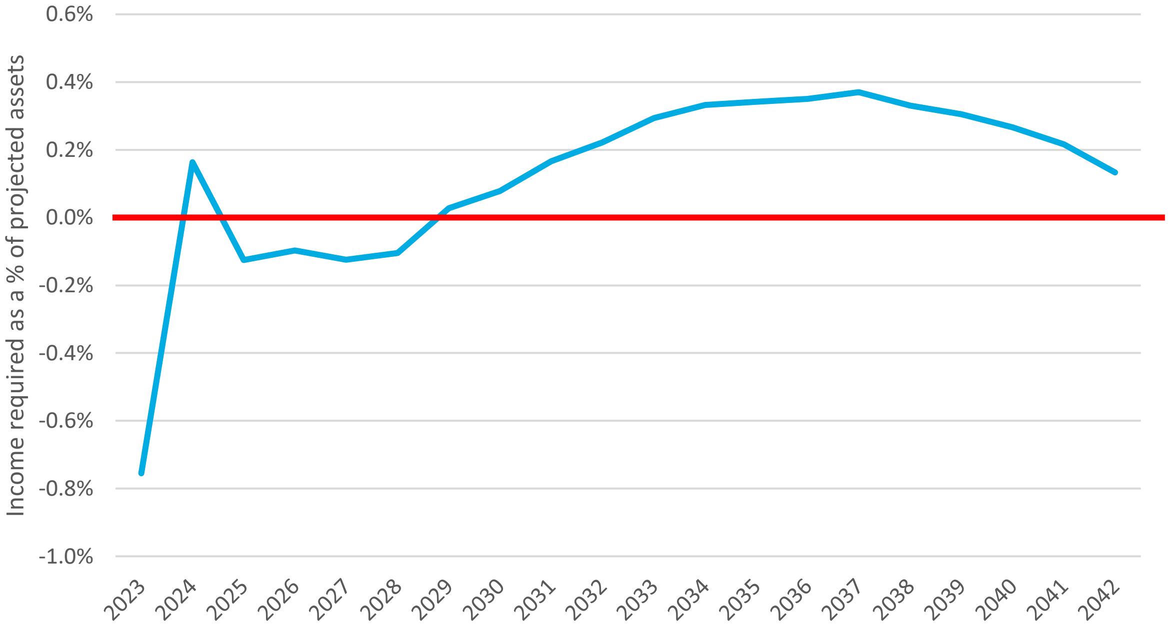
Assets are assumed to increase at 4.1% pa

HYMANS # ROBERTSON

Employer exit scenario

Whole fund net cashflow (Employer Exits)



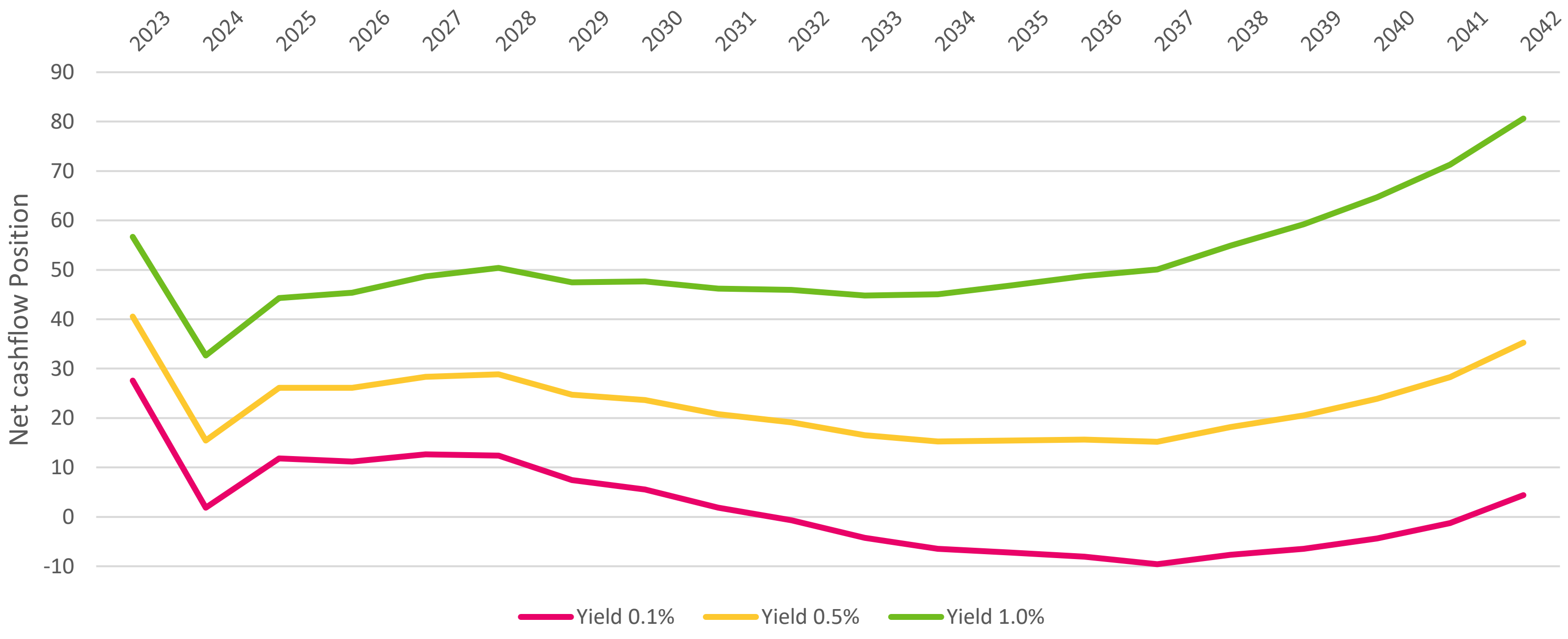


We modelled the impact of employers immediately leaving the fund on the median baseline inflation scenario. As expected, the impact of employer exits reduces contribution income and therefore increases the strain on future cashflows . However the larger Council employers in the Fund make up the majority of contributions hence the overall cashflow position remains similar to the baseline scenario. We have allowed for the exits of Aster Pool, CIPFA, Selwood Housing and Westlea Housing via a reduction in contribution income. We however have not allowed for the potential payment of exit debts/credits within the investigation period.

Assets are assumed to increase at 4.1% pa

Sensitivity of net cashflow

Sensitivity of net cashflow to investment income yield



Notes
This highlights the sensitivity of the cashflow position to the investment income yield. For example, a yield of 0.1% p.a. results in a negative cashflow position for several years within the 20 year period under investigation.

However, a yield of 0.3% or above, results in a cashflow positive position for the whole of the 20-year projection period.

(Results shown for baseline scenario only).

This highlights the key role the Fund’s investments play in ensuring there is enough liquidity within the overall strategy (funding and investment) to meet benefit payments.

Assets are assumed to increase at 4.1% pa

Next steps

Next steps

1. Monitor membership changes and their impact on the cashflow position
2. Consider any factors (e.g. inflation) that may affect the cashflow position
3. Consider the investment strategy in light of any future possible negative cashflow position
4. Consider evolving or developing new cashflow management and/or rebalancing policies with your investment advisor

Reliances and limitations

APPENDIX 1

Reliances and limitations

This paper is addressed to Wiltshire Council as Administering Authority to the Wiltshire Pension Fund. It has been prepared in our capacity as actuaries to the Fund and is solely for the purpose of projecting the expected cashflows of the Fund over a 20 year time horizon. It has not been prepared for any other purpose and should not be used for any other purpose.

The cashflow projections are based on a specific set of deterministic assumptions, which are highly unlikely to be borne out exactly. We therefore do not claim that the future will exactly match the figures in this paper. The results should be used to give an indicative idea of the Fund's medium term cashflow requirements only.

Any party must accept full responsibility for establishing that the cashflows are appropriate for the purpose to which they want to put them and any decisions that are taken based on their analysis. We cannot be held responsible for any losses sustained as a result of third parties relying on the cashflows provided, or if the cashflows are used for any inappropriate purpose

The extent of the deviations from the assumptions underpinning the cashflow projections depends on uncertain economic events as well as other factors that are not known in advance such as members' decisions, variations in mortality rates, retirement rates and withdrawal rates, fluctuations and rates of salary increase, and the numbers and ages of future new entrants which cannot be accurately predicted. In addition, there could be changes in the regulatory environment and possible changes in retirement benefits. These other uncertainties are often not related to any particular investment and economic eventualities.

Three of the important uncertainties are the:
(a) Rate of pension increases, the vast majority of which increase at the annual increase in CPI inflation
(b) Extent to which members elect to exchange pension for cash at retirement
(c) Level of future payroll and contribution rates which will determine the amount of contributions paid into the Fund

The Administering Authority is the only user of this advice. Neither we nor Hymans Robertson LLP accept any liability to any party other than the Administering Authority unless we have expressly accepted such liability in writing.

This report may be shared with the Fund's investment advisor for information purposes only but may not be passed onto any other third party except as required by law or regulatory obligation, without prior written consent of Hymans Robertson LLP.

In circumstances where disclosure is permitted, the advice may only be released or otherwise disclosed in its entirety fully disclosing the basis upon which it has been produced (including any and all limitations, caveats or qualifications).

The following Technical Actuarial Standards are applicable in relation to this advice, and have been complied with where material and to a proportionate degree:
- TAS100
- TAS300.