Gwynedd Pension Fund

Assumption setting for the 2025 valuation

Pensions Committee: 17 March 2025

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Contents

1. Background

What assumptions does the Fund need to make?

Assumption	Description
Financial assumptions	
Discount rate	Average annual rate of future investment return that will be earned on the Fund’s assets. This is used to place a present value on future projected benefit payments.
Benefit increases / CARE revaluation	Average annual rate of future benefit increases and CARE revaluation (which are based on CPI inflation in the LGPS)
Salary increases	Average annual rate of future inflationary salary awards
Demographic assumptions	
Baseline longevity	How long we expect members to live based on current observed death rates
Future improvements in longevity	How death rates are expected to change in the future (historically life expectancy has improved over time)
Members leaving dependants	Proportion of pensioners leaving a dependant pension at death
Age difference with dependant	Difference in age between member at death and their surviving dependant
Other demographic events	Events such as retirement age, rate of ill health retirement, level of commutation and 50:50 take up

Assumption setting ‘rules’

- Set by the Fund Actuary through discussions with Officers and Committee
- Reflect the specific characteristics of the Fund (where practical) and the timeframe of the liabilities i.e. very long-term view
- LGPS guidance requires funds to adopt prudent assumptions
- Margin of prudence adopted in the future investment return (discount rate) assumption
- All other assumptions are best estimate
- Starting point is current assumptions, then consider any relevant changes

Evolution from 2022, not a revolution

2. Financial assumptions

Changes affecting financial markets since 2022

The main changes since the 2022 valuation date are set out below:

Economic conditions

- Increase in interest rates from historic lows to rates closer to the long-term average.
- Higher than expected inflation: April 2023 (10.1%) and April 2024 (6.7%).
- Increased market volatility, impacting expected future investment returns.

Climate risk

- Climate change could have significant implications for financial markets.
- In particular, there is evidence to suggest that the risk of extreme events occurring is increasing
- A workshop that focuses on the uncertainty around future climate pathways is being planned for later this year.

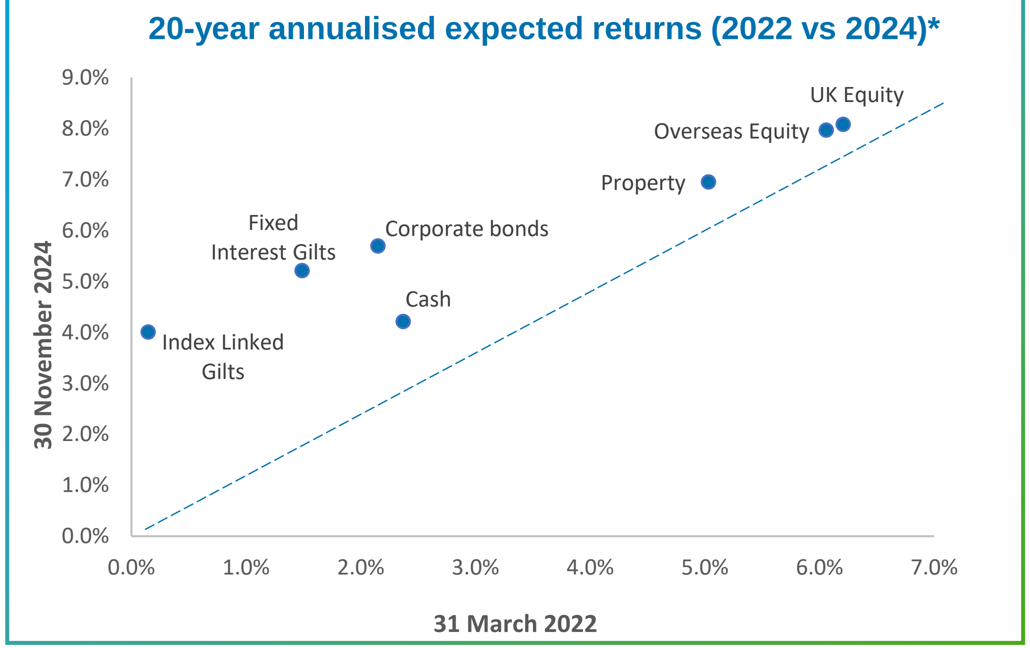
Political risks

- In July 2024, the Government launched its Pensions Investment Review.
- In November 2024, the UK Government launched the “LGPS – Fit for the future” consultation.
- The geo-political landscape has shifted significantly e.g. increases in regional conflicts, potential trade wars.

The most material change for the purpose of funding at the 2025 valuation is the change in economic conditions

Future investment returns (discount rate)

- Significant change in economic environment since 2022



- Higher expected future investment returns, higher funding levels and lower benefit costs
- But increased uncertainty, justifying an increase in prudence in the assumption

	31 March 2022		30 November 2024	
Prudence level	**Reported discount rate (p.a.)**	**Funding level**	**Discount rate (p.a.)**	**Funding level**
75%	4.1%	120%	6.2%	186%
80%	Not assessed	Not assessed	5.7%	171%

Prudence level	31 March 2022 Primary rate (% of pay)	30 November 2024 Primary rate (% of pay)
75%	21.2%	14.7%
80%	Not assessed	16.0%

Recommendation: Increase prudence level from 75% to 80%

* Source: Hymans Robertson's ESS model

Benefit and salary increases

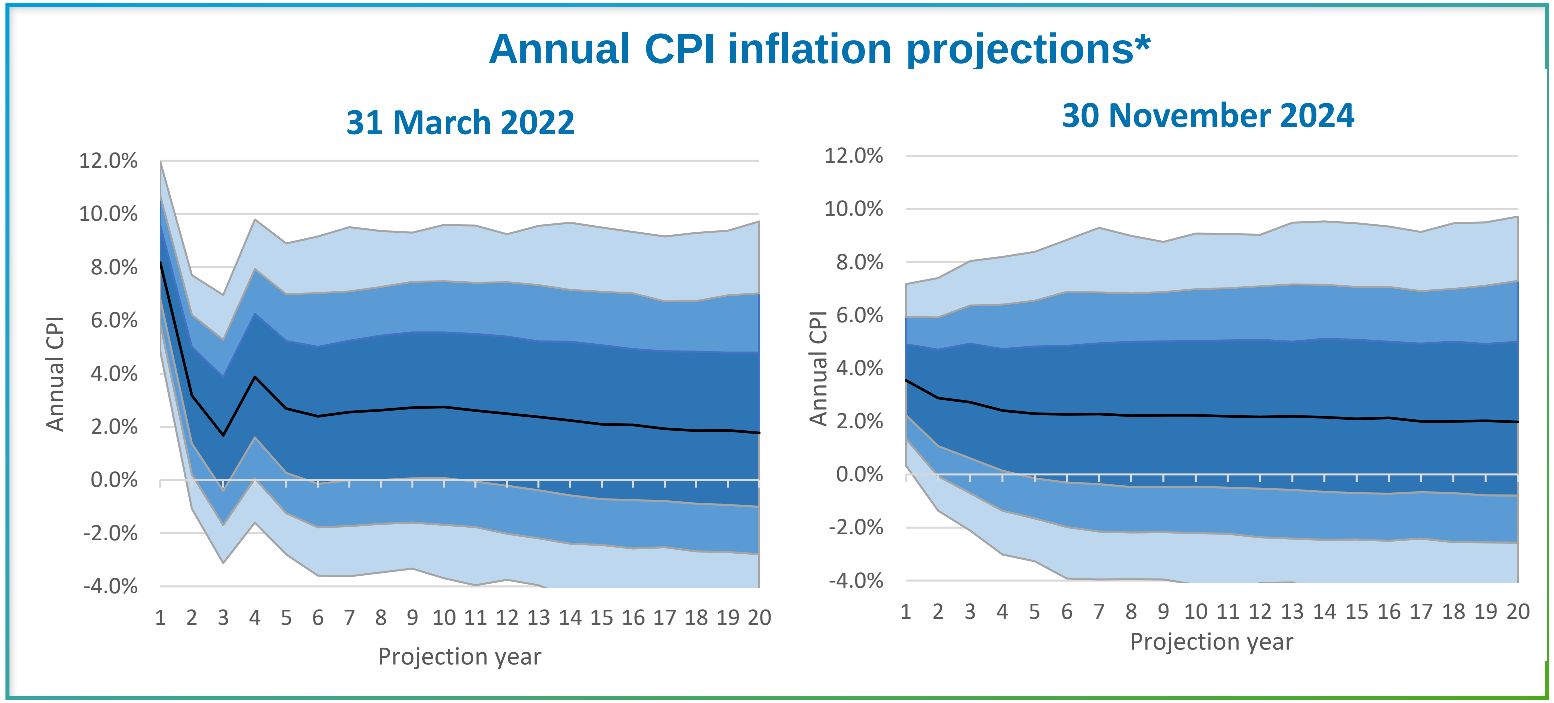
Benefit increases

- Benefit increases (and CARE revaluation) linked to CPI
- Reflect current inflation expectations

Salary increases

Inflationary salary increases set at CPI + 0.5%:

- Uncertainty due to competing factors
- Maintain at current margin in absence of strong reason for change



Average* level of future inflation at 30 November 2024 = **2.3% pa (vs 2.7% pa at March 2022)**

Recommendation: Same approach as 2022 valuation, but reflect current inflation expectations

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* Source: Hymans Robertson's ESS model. Average is the 20-year annualised median.

Life expectancy assumption

Breaking down the longevity assumption

Your **longevity** assumptions

How long you expect to pay a pension to each member and their dependants.

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Baseline

- A snapshot of **how long people currently live**
- Measured **objectively** based on recent mortality data
- Use Club Vita analytics for a **tailored best estimate** based on members' characteristics

+

Future improvements

- How life expectancy increases over time
- Shorter-term expectations reflecting recent trends
- Longer-term expectations reflecting **historical trends plus evidence** that improvements may be higher or lower than historical trend
- **Subjective** – wide range of possible outcomes

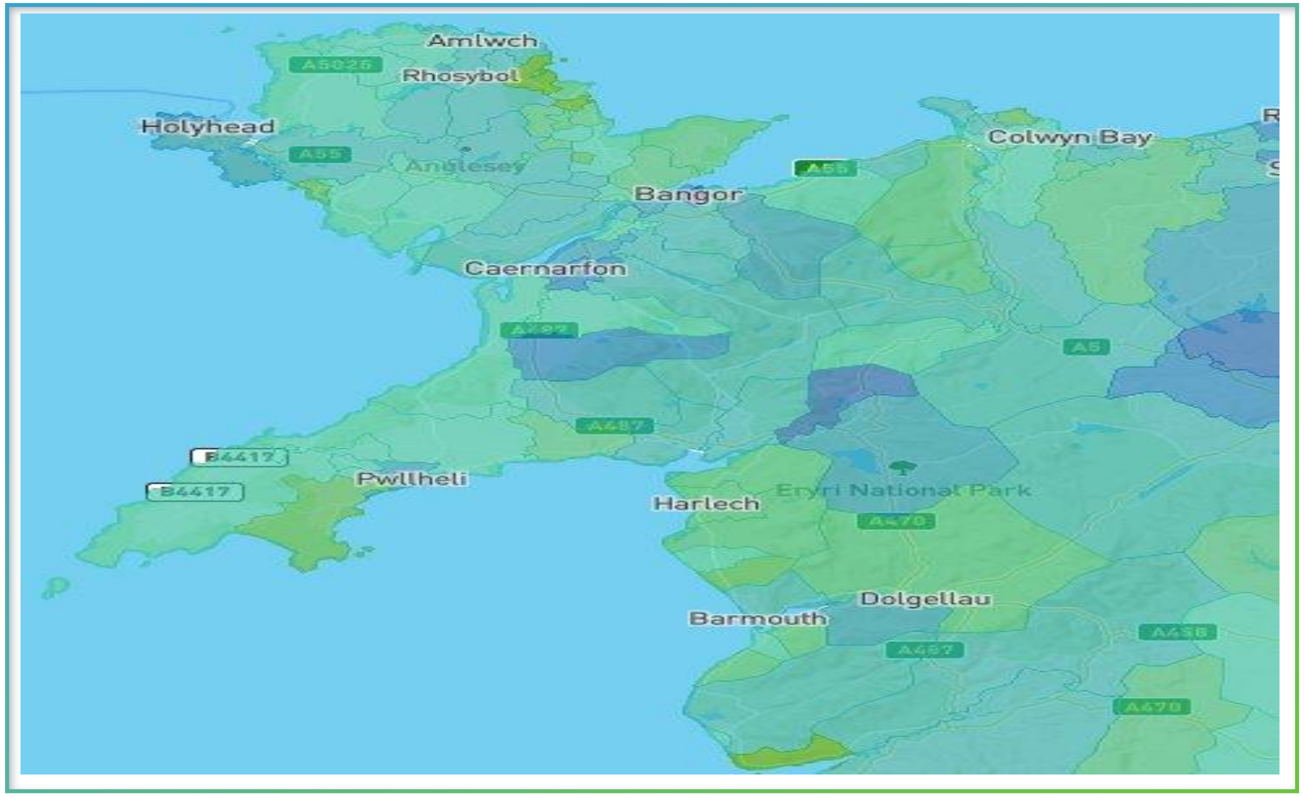
Evidence based baseline and informed judgement for future improvements

Baseline assumption

- Life expectancy tailored to every member of the Fund
- Considers postcode (proxy for lifestyle), retirement type and affluence
- Assumption is updated annually to reflect latest available data

Life expectancy at age 65

Low High



Source: Club Vita, map available at https://maps.clubvita.co.uk

Recommendation: Continue to use tailored Club Vita assumptions

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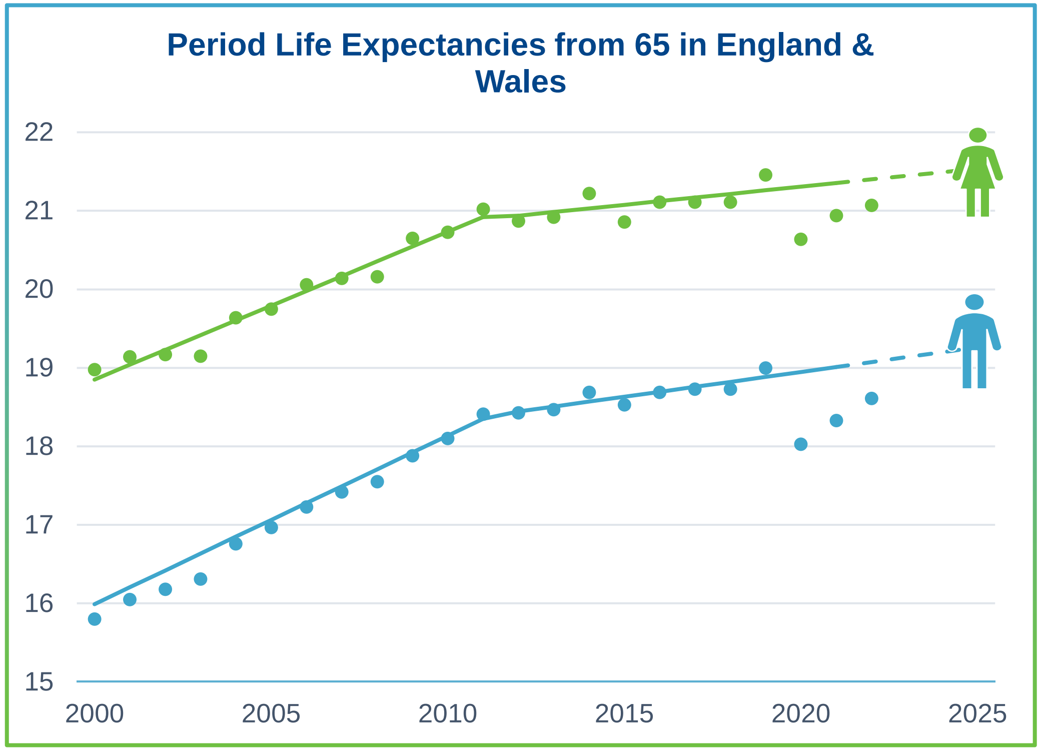
Future improvement assumption



Source: CMI 2022 model. Life expectancies from 2022 calculated using projected qx rates, with W_{2020} through W_{2022} set to 100% and S_x set to 0%

- The world does not stand still, including life expectancy
- Need to allow for future improvements in life expectancy
- Improvements will be driven by medical advances, lifestyle behaviours and other external factors
- Will require subjective decision making

Future improvements – other drivers

- Uncertainty in outlook
- Real-world drivers will affect future life expectancy
- Fund should consider its beliefs around future trends
- Full analysis considered in the Fund officer paper included in the committee pack.

Longevity drivers

- Long Covid
- Antibiotic resistance
- Obesity
- More pandemics
- NHS backlog
- NHS funding challenges
- Climate change
- Challenges in tackling Alzheimer's disease and other types of dementia
- Enhanced diagnostics
- Anti-ageing drugs
- Social care reforms
- Wearables to monitor health
- mRNA cancer vaccines
- Diet (including vegetarianism)
- Stem cell technology
- Blood tests to screen for cancer
- Universal flu vaccine
- microRNA technology to treat heart disease

Less prudent ⟷ **Prudent**

	Low	Default	High
Climate Change	There is extremely limited response to address climate change.	There is some adaption to address climate change, but a struggle to adapt quickly.	There is plausibly fast and effective adaption to address climate change.
COVID-19 Deaths	Deaths from COVID will continue to be material in the longer term.	The level of deaths as a result of COVID has now stabilised.	Deaths from COVID will be negligible in a few years' time.
Long COVID	The proportion of individuals affected long COVID will remain at the level observed in 2023.	The proportion of individuals affected by long COVID will reduce slowly from the level observed in 2023.	There is no material increase to mortality risk in the long-term due to reduced instances of long COVID.
NHS delays	There is no reduction in NHS waiting times and no progress towards the government's 18-week target.	There is a general reduction in NHS waiting times, but still above the government's 18-week target.	Within 5 years, there is no-one that waits more than 18 weeks for treatment.
NHS funding	The Government's health and social care budget continues to reduce in real terms.	The Government's health and social care budget remains constant in real terms	The Government's health and social care budget will be increased in future years.

Recommendation: Adopt overall 'default' future improvement assumption

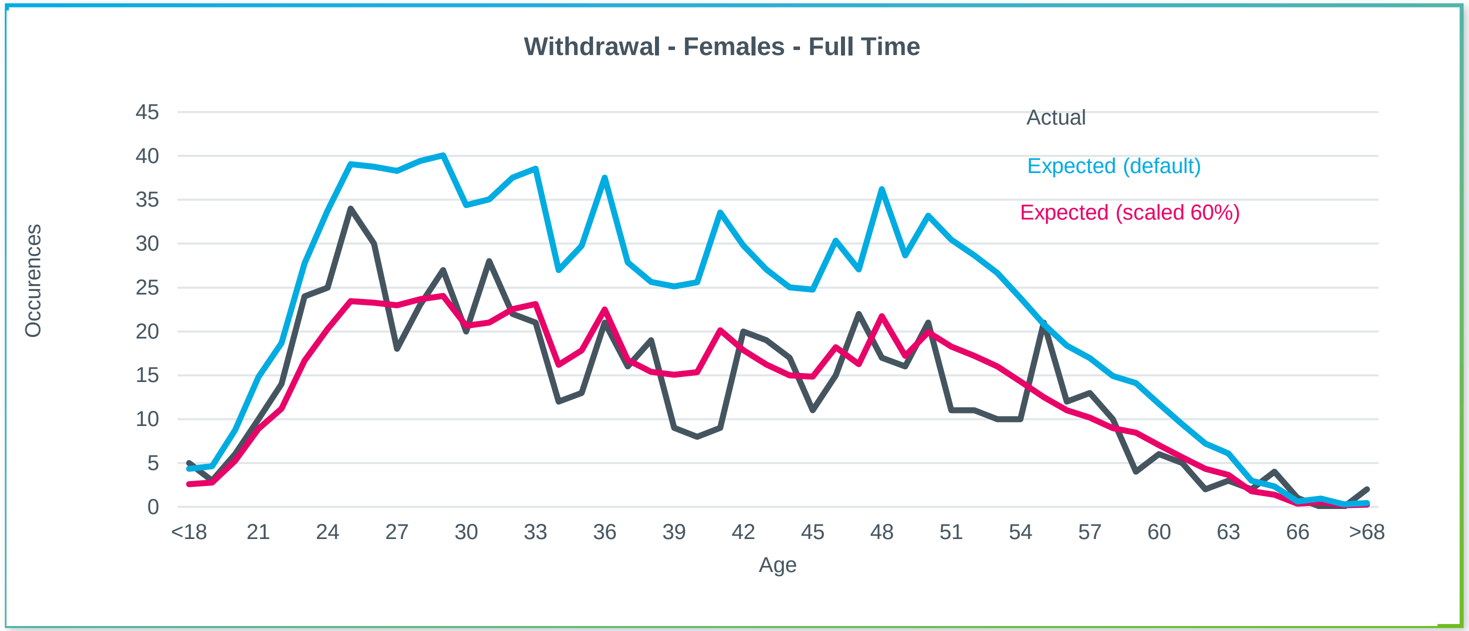
All other demographic assumptions

Other demographic assumptions

- Withdrawal
- Ill-health retirements
- Promotional salary scale
- Death before retirement
- 50:50 option take-up
- Retirement age
- Cash commutation

Use analysis of LGPS and Fund's actual membership experience.

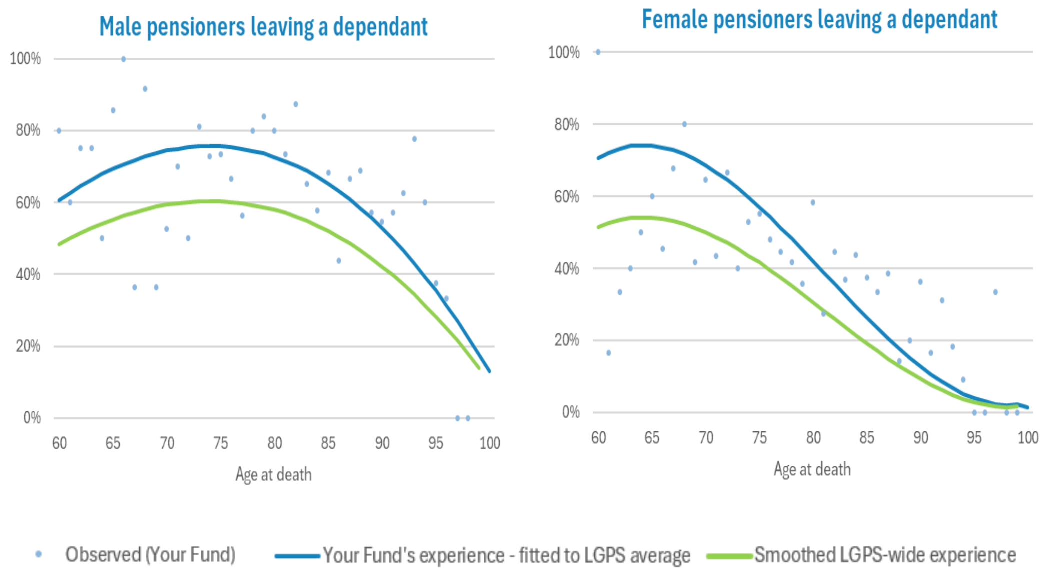
Consider external factors e.g. short-term events which skew analysis or upcoming changes



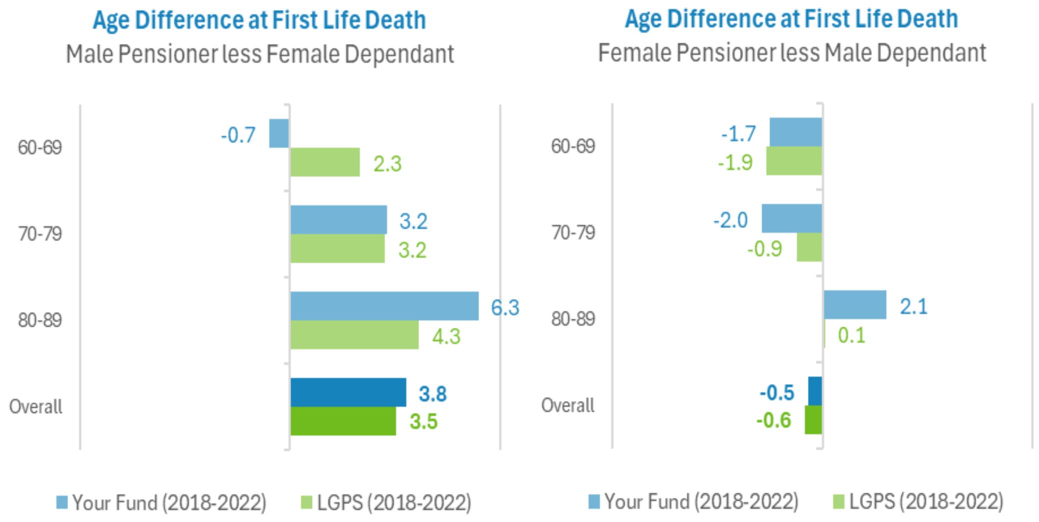
Recommendation: Adopt assumptions based on analysis of the Fund's actual membership experience

Assumptions informed by Club Vita

Proportion of members leaving a dependant



Age difference with dependant



Recommendation: Adopt assumptions based on Club Vita LGPS-wide analysis

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Next steps

Assumptions to be approved

Assumption	2022 valuation assumption	Proposed 2025 valuation assumption
Discount rate (level of prudence)	**75%** LoS prudence level	**80%** LoS prudence level Reflects increased market/economic uncertainty
CPI inflation (Benefit increases and CARE revaluation)	Based on Hymans' ESS model, reflecting market expectations Median CPI expectation of **2.7% pa**	Based on Hymans' ESS model, reflecting market expectations Median CPI expectation of **2.3% pa** (as at November 2024, will be based on March 2025 expectations for valuation)
Salary increases	**CPI + 0.5%**	**CPI + 0.5%**
Baseline longevity	**Latest Club vita tables**	**Latest Club vita tables**
Future improvements in longevity	• Use latest available CMI model • Reflect Fund's membership characteristics • Avoid recent Covid experience skewing projections	• Use latest available CMI model • Reflect Fund's membership characteristics • Avoid recent Covid experience skewing projections • Reflect Fund's beliefs about future longevity drivers
Other demographic assumptions (excluding longevity)	• **Withdrawals (excl. ill health)** –Hymans' default assumption is reduced by 20% for full-time males and females, and 25% for part time males • **Ill health early retirements** – Hymans' default assumption • **Promotional salary scale** – Hymans' default assumption • **Death in service** – Hymans' default assumption • **50:50 assumption** – 0.5% uptake • **Retirement age** – earliest age at which a member can retire with their benefits unreduced. • **Cash commutation** – 65% of the maximum tax-free amount. • **Members leaving dependants** –Club vita LGPS-wide analysis • **Age difference with dependant** – Dependant is 3 years younger or older for males and females respectively	• **Withdrawals (excl. ill health)** – Hymans' default assumption is reduced by 40% for full-time and part time males, 30% for full-time females and 10% for part-time females • **Ill health early retirements** – Hymans' default assumption • **Promotional salary scale** – Hymans' default assumption • **Death in service** – Hymans' default assumption • **50:50 assumption** – 0% uptake • **Retirement age** – no change • **Cash commutation** – 75% of the maximum tax-free amount. • **Members leaving dependants** – Club vita LGPS-wide analysis • **Age difference with dependant** – Club vita LGPS-wide analysis (Dependant is 3.5 years younger for males and 0.6 years older for females

Thank you

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