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East Sussex Pension Fund

2022 valuation assumptions

Pension Committee

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Regulatory information

The information in this presentation is based on our understanding of current taxation law, proposed legislation and HM Revenue & Customs practice, which may be subject to future variation. This presentation is not intended to provide and must not be construed as regulated investment advice. Returns are not guaranteed and the value of investments may go down as well as up.

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What's happened since 2019?

Proposed assumptions

Outlook for 2022

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What's happened since 2019?

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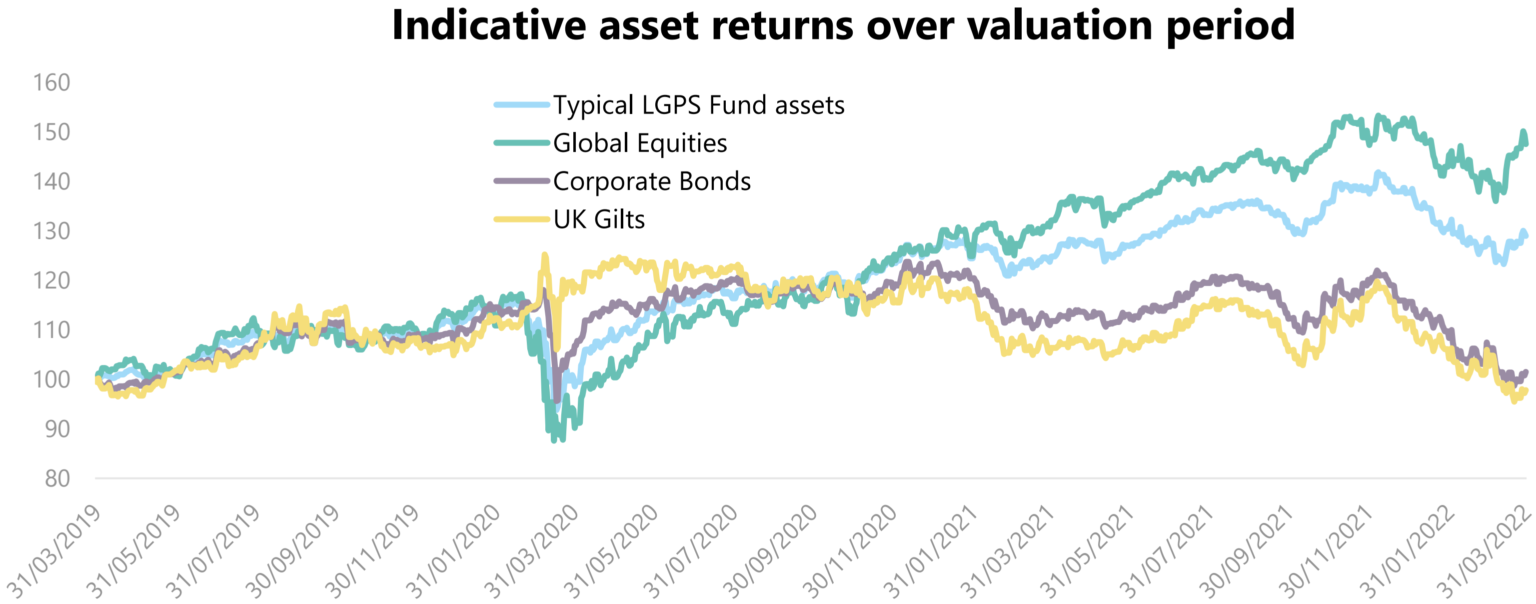
How have assets performed



Source: FTSE, Merrill Lynch, Barnett Waddingham

East Sussex Pension Fund achieved approximately 29% over 3 year period.

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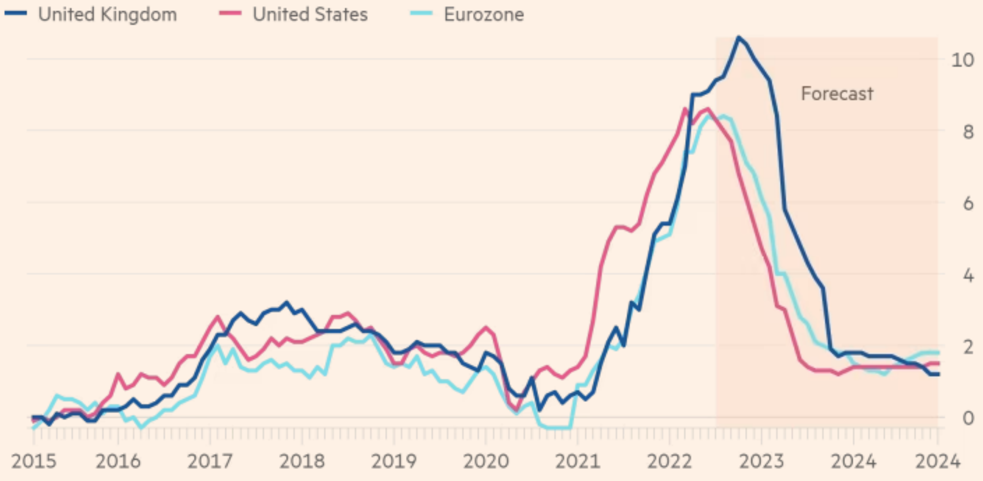
Higher inflation for longer?

UK inflation is forecast to stay higher for longer than in the US or eurozone

Headline CPI, year on year, %



Sources: Capital Economics, Refinitiv

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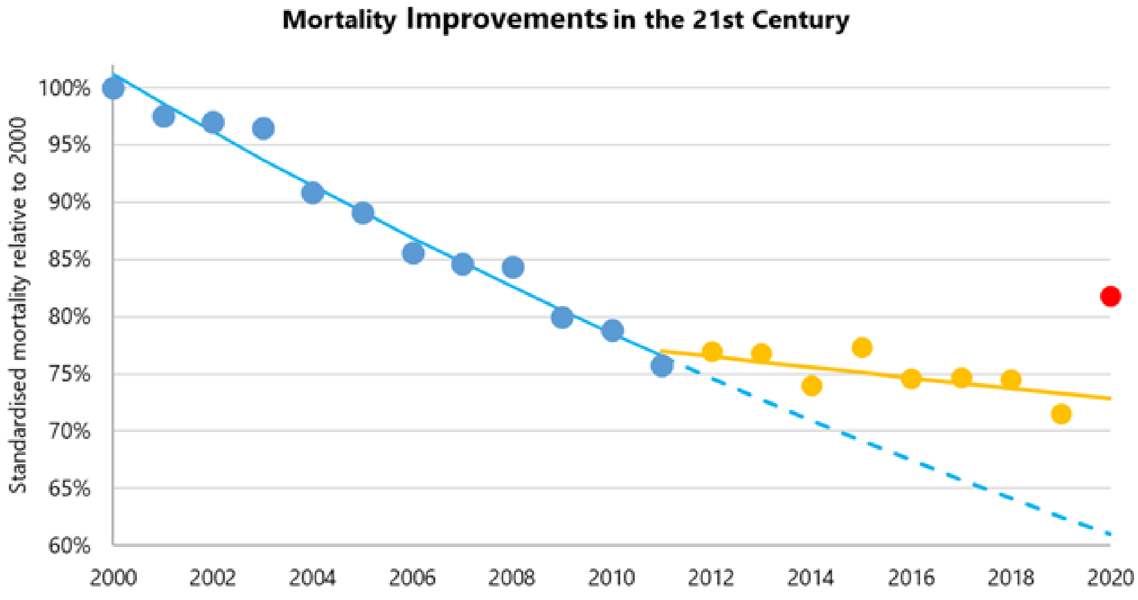
- Key drivers
  - Covid stimulus/spending
  - Supply/demand issues
  - Energy prices
- Factors that help:
  - Globalisation
  - Debt
  - Ageing population
- Ongoing factors:
  - Wage inflation
  - Central bank policy
  - Recession?

How is mortality changing?



Source: Barnett Waddingham calculations based on Office for National Statistics data for England and Wales and Continuous Mortality Investigation Ltd (CMI) methodology

First recorded UK Covid death 30 January 2020

100,000 UK Covid deaths by 22 January 2021

124,000 deaths above 5 year average E&W (to November 2021)

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Future life expectancies

- Could decrease because:
  - Long-Covid
  - Pressure on NHS
  - Economic recession
- Could increase because:
  - Improved health of current population
  - Medical advancements
- Too soon to make final judgement

2 Proposed assumptions

Why the assumptions are important?

To produce the future cashflows or liabilities and their present value we need to formulate assumptions about the factors affecting the Fund's future finances

Financial assumptions

- Determines the estimates of the **amount** of benefits and contributions payable as well as their current or present value.
- This includes inflation, salary increases and investment returns (also referred to as the discount rate).

Demographic assumptions

- Determines the **likelihood** of benefits and contributions payable.
- This includes rates of mortality, early retirement and staff turnover.

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Impact of increase in each assumption

Pension increases (CPI)

- Increases liability for **all members**
- All benefit payments are higher

Salary increases

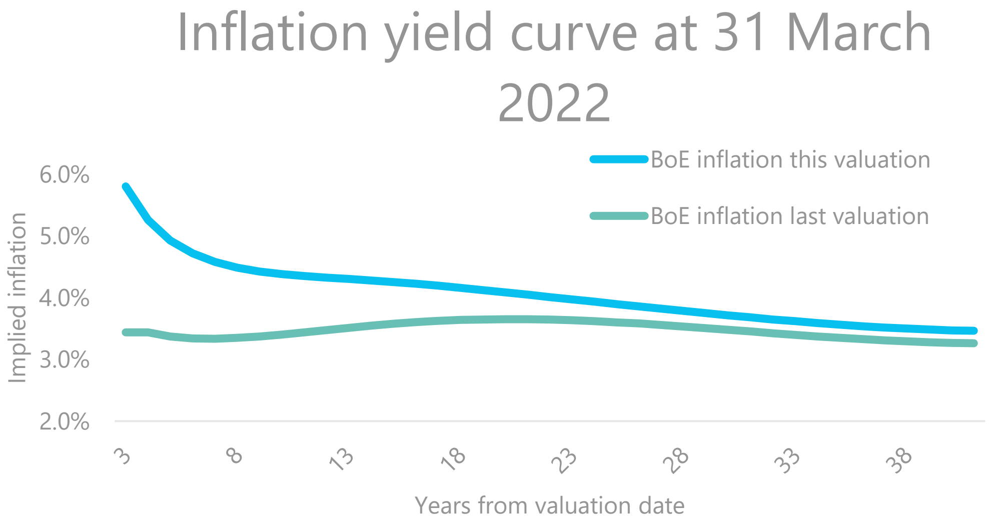
- Increases liability for **active members**
- Final salary benefit payments higher

Discount rate

- Reduces liability for **all members**
- Investment return does more work

Key assumption – RPI inflation

- Set with reference to 20 year point on BoE implied inflation curve
- With allowance for shape of yield curve
- Including inflation risk premium to reflect supply/demand distortions and willingness of investors to pay a premium for inflation-linked products



Source: Bank of England

Key assumption – CPI inflation

- Used for pension increases, revaluation in deferment, CARE revaluation
- 2019 assumption was 1.0% p.a. below RPI
- During intervaluation period, a change to calculating RPI was announced from 2030 to align with the Consumer Prices Index including owner occupiers' housing costs (CPIH).
- 2022 proposal:

Allowance for shape of yield curve **0.3%** + Inflation risk premium **0.4%** + Differences between RPI and CPI following 2030 announcement **0.35%** = Overall adjustment between RPI and CPI **1.05%**

- Also used as basis for salary increase assumption

Negative impact on liabilities	Based on market conditions up to 30 June 2022, our proposed CPI inflation assumption is 2.9% p.a. This compares to a CPI inflation assumption of 2.3% p.a. at the previous valuation.	2019	2.3%
		2022	2.9%

CPI intervaluation experience

2020 = 1.7%
2021 = 0.5%
2022 = 3.0%
2023 = 9%??

Source: Pensions Increase Order

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Key assumption – salary increases

- Salary increase assumption less important than before (although will affect McCloud liabilities)
- 2019 assumption CPI plus promotional salary scale
- 2022 proposal is CPI plus 1% p.a. (includes promotional increases)
- Possible pay award complications

Negative impact on liabilities ⬆	Based on recent market conditions we believe a salary increase assumption of CPI inflation plus 1.0% p.a. would be appropriate for the 2022 valuation. This reflects both inflationary and promotional increases and is the same as the assumption used for the previous valuation.	2019	2.3%
		2022	3.9%

Key assumption - discount rate

Expected return

- Weighted average
- Long-term investment strategy

Expenses

- All employers
- Explicit element

Smoothing

- Six month period
- Reduces volatility

Prudence

- Attitude to risk
- Allowance for uncertainty

Varies by Fund
Standardised for S13

Varies by employer
Employer covenant and circumstances

Varies over time
Updated for market conditions

Key assumption – discount rate

Asset class	Strategic asset allocation	Derivation of neutral expected return	Assumption (p.a.)
Bonds/credit	15.5%	Gilts + 90% credit spread	2.7%
Public Equity	40.0%	Dividend yield + CPI + real capital growth	6.9%
Private Equity	5.5%	Same as public equities	6.9%
Property	11.0%	CPI + 3.5%	6.4%
Infrastructure	11.0%	CPI + 3.0%	5.9%
Absolute return fund	17.0%	Cash + 4.0% p.a.	5.5%
Less expenses			0.2%
Neutral return			**5.7%**
Less prudence allowance			1.1%
Prudent discount rate assumption			**4.6% p.a. (i.e., CPI +1.7%)**

Neutral impact on liabilities	At the previous valuation, the discount rate was 4.0% p.a. (i.e. 1.7% p.a. above CPI inflation at the time). The net discount rate is therefore now the same as it was at the last valuation which will, all else being equal, place a similar value on the liabilities and primary rate. .	2019	4.0%
		2022	4.6%

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Mortality - Club Vita analysis (2021 data)

Membership group	Approximate change in liability using VitaCurves (with data calibrated spanning 2017-2019) rather than current funding assumption
Actives	-0.2%
Deferred Pensioners	-0.1%
Pensioners and Dependants	-0.5%
Overall	**-0.3%**
Change to future service contribution rate	-0.2%

These figures are based on a broad approximation to scheme benefits and financial assumptions which are designed to reflect a market consistent basis. Full details of the assumptions used are included in the VitaCurves report.

Positive impact on liabilities	Based on the assumptions used at the previous valuation, the Club Vita team have estimated that the proposed mortality assumptions will improve the funding position by 0.3% and reduce contributions by 0.2%. The majority of this improvement is due to the change in approach to future improvements.

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Regulatory uncertainties

McCloud

- Draft regulations awaited for LGPS
- Estimated calculations based on available data (actives only)
- Member by member calculations
- Employer specific impact

Climate risk

- More than consideration of climate risk on investment strategy
- Consider impact on liabilities through use of scenario analysis
- TCFD regulations awaited for public sector.
- Set of principles agreed by four actuarial firms and being considered by GAD
- Analysis issued alongside initial results

Outlook for 2022

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Outlook for 2022 results

Assets	• Investments performed better than expected, increasing assets held
Liabilities	• Higher expected inflation increasing liabilities but offset by higher discount rate
Funding levels	• Improved funding level providing reserve for potential inflationary pressures • Likely improvement in employer funding level
Total contribution rate	• Overall aim is to maintain contribution stability and balance affordability