Meeting:	**Pensions Committee**
Date:	**17/01/2022**
Title:	**2022 Valuation: Actuarial Assumptions**
Author:	**Dafydd L Edwards – Fund Director**
Recommendation:	**To approve the actuarial assumptions suggested by Hymans Robertson, the Fund Actuary, to be used in the 2022 Valuation**

Introduction

1. Members will recall that a report was submitted to the Committee on 21st October 2021 setting the timetable for the Pension Fund's valuation, based on the membership as at 31 March 2022, with new employer contribution rates coming into force on 1 April 2023. Effectively, the formal valuation is the Fund's most comprehensive and critical risk management exercise.

2. As part of the valuation, the Fund reviews its funding strategy and funding plans. A key element of the funding strategy is the underlying actuarial assumptions. These assumptions should seek to reflect the Fund's future expectations and level of risk appetite. Both of these may change over time as more information becomes available, the environment in which the Fund operates evolves and the balance between prudence and affordability shifts in light of external factors. Therefore, it is both necessary and good practice to review the actuarial assumptions adopted by the Fund as part of every triennial valuation.

What is the purpose of the Valuation?

3. The purpose of the valuation is to:
    - review the current funding strategy in light of changes to the economic, regulatory and social environment;
    - set a contribution rate for every employer that will be paid (in this case) from 1 April 2023 to 31 March 2026, at which point rates will be re-assessed at the 2025 valuation; and
    - check the current funding position.

4. To determine the required level of future employer contributions we must carry out two projections:

    - Benefit projection: this projects the benefits that will be paid to scheme members in each future year (taking into account benefits accrued up to the valuation date and those that will continue to be accrued after the valuation date).

    - Asset projection: this projects the amount of the Fund's assets in each future year, taking into account future employer and employee contributions, future benefit payments (from the benefit projection) and the investment returns that will be earned on the assets.

5. The contribution rates are then set such that, at the end of an agreed period (the funding time horizon), there are enough assets (from the asset projection) to meet the future benefit payments (from the benefit projections) in a sufficiently high number of possible future economic outcomes. This is the funding objective.

What actuarial assumptions are needed?

6. To carry out the valuation we need to make assumptions about the magnitude and timing of both the future benefits that will be paid out of the Fund and the future investment returns generated by the Fund's assets. The assumptions fall into two broad categories – financial assumptions and demographic assumptions.

7. The tables below set out the Fund Actuary's recommendation for each key valuation assumption, along with supporting rationale. The next step is for the Fund to use this information to agree the assumptions that will be used for the 2022 valuation.

8. Officers have received proposals from the Fund Actuary, Hymans Robertson, setting out options of how to build and set valuation assumptions. The proposals set out below have also been discussed with the Committee Chairman. Full details about the assumptions are set out in the Actuary's report enclosed here as an Appendix, giving further background information on these assumptions. The Committee are asked to consider and endorse the proposed assumptions in the Executive Summary below.

Financial Assumptions

9. Hymans use a "risk-based" approach to calculating the benefit and asset projections and setting the underlying financial assumptions. Under this approach, Hymans use an economic scenario generator (Hymans Robertson's proprietary generator is called the Economic Scenario Service – ESS) to produce 5,000 different simulations of future financial assumptions. This allows them to generate a distribution of future benefit and asset projections so all stakeholders in the Fund can better understand risk. The assumptions in each scenario vary by year i.e. they are not 'flat', so they are a better representation of reality than a single, linear assumption.

Assumption	2019 Assumption	Proposed for 2022	Reason for change
Future Investment Returns	Based on Hymans Robertson's ESS model	As per 2019 but updated to latest market calibration	No change, level of prudence (75% prudence margin) consistent with 2019 valuation. Asset class return expectations are broadly similar to 2019.
Discount Rate	1.7% p.a. excess above risk-free rate Based on a prudence margin of 75%	2.0% p.a. excess above risk-free rate The same 75% prudence margin, results in a marginal increase	Retaining the same level of prudence, consistent with 2019 valuation, results in a marginal increase in the Discount Rate from 1.7% in 2019 to 2.0% for 2022.

Pension Benefit Increases	Based on Hymans Robertson's ESS model	As per 2019 but updated to latest market calibration	No significant change, level of prudence consistent with 2019 valuation, although inflation expectations are slightly higher (c.0.2-0.3% p.a.) than 2019 due to the current economic outlook.
Salary Increases	0.3% above CPI inflation	0.5% above CPI inflation (note also that CPI inflation expectations are now higher than 2019)	2022 proposed assumption is in line with 2019 long-term expectations. At 2019, allowance was made for short-term expected pay restraint. For 2022, no allowance is made for short-term pay restraint.

Demographic Assumptions

Assumption	2019 Assumption	Proposed for 2022	Reason for change
Baseline Longevity	Based on Club Vita analysis & reflects individual member characteristics	Based on Club Vita analysis as per 2019, but updated to reflect latest observed non-Covid related mortality experience	No significant change anticipated. Tailored to Fund's membership to reduce risk of actual experience being materially different from expectations.
Future Improvements in Longevity	CMI 2018 model Smoothing applied to recent experience Long-term rate of improvement = 1.25% p.a.	CMI 2021 model No weight placed on 2020/21 data, and adjustment to reflect membership profile Long-term rate of improvement = 1.5% p.a.	Latest version of CMI model reflects more recent experience. Avoid long-term projections being unduly affected by short-term Covid-19 experience. Starting the projections from a lower point than in 2019 (due to the recent heavier mortality experience), the increase from 1.25% to 1.5% ensures life expectancies remain broadly similar to our 2019 assumption.
Withdrawals	Based on analysis of experience at a national level, Hymans have increased their national assumption on the likelihood of withdrawals, reflecting trends of increased job mobility. Fund specific analysis here shows withdrawals have been lower, hence Hymans propose to scale down from their nationally assumed increase (80% of the increase for full-time males, 80% for part-time females, and 75% for part-time males, but no scaling for full-time females, to reflect local experience).		

Ill health retirements	No change from the 2019 valuation assumption. While incidence of ill-health retirements is slightly lower than expected, Hymans propose to leave this assumption at its current level, in light of the potential increase in ill-health retirements as a result of Covid-19.		
Promotional salary scale	Hymans' analysis of our Fund's membership shows that salary increases have been above the national default assumption, but it is proposed to continue with the 0.5% above CPI level, as this trend is unlikely to continue long-term.		
Death before retirement	Hymans expect the death-in-service rate to fall at each valuation. Therefore, the default expected rate of death-in-service is reduced by 20% for the 2022 valuation.		
50:50 option take-up	0.5%	0.5%	No change, reflecting ongoing sustained low take-up by scheme members.
Retirement age	Assuming scheme members retire at the earliest age at which no benefits will be reduced. This adjustment reflects emerging experience, further to benefit changes, and reduces liabilities by around 1%.		
Cash commutation	50% pre-2008, 75% post-2008	65% of maximum tax-free cash	Simplification of calculation and assumption reflects our Fund's recent membership experience.
Proportion leaving a dependant	Based on Club Vita analysis of our Fund, to ensure the current assumption reflects Fund's membership experience		

Recommendation

10. The Committee are asked to consider and approve the actuarial assumptions proposed by Hymans Robertson, in the summary table above and detailed in the Appendix, to be used in the 2022 Valuation.

11. Once the assumptions have been approved, subject to possible review in October 2022, these will be formalised in an updated version of the Funding Strategy Statement in January 2023 (draft pending consultation) and in March 2023 (final version), as part of the 2022 valuation process.