

MEETING	<b>PENSION BOARD</b>
DATE	<b>18 DECEMBER 2023</b>
TITLE	<b>CLIMATE SCIENCE AND ECONOMIC MODELLING</b>
PURPOSE	<b>To investigate recent articles suggesting that pension funds do not follow climate science when setting their investment strategy</b>
RECOMMENDATION	<b>To note the contents of the report and consider any associated risks</b>
AUTHOR	<b>Delyth Wyn Jones-Thomas, Investment Manager</b>

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## 1. INTRODUCTION

A number of recent articles have been published stating that the advice pension funds receive does not follow climate science and therefore puts the investments at risk. This is primarily based on the report by Carbon Tracker, which can be found in section 2.

This report investigates how Gwynedd Pension Fund has taken climate into consideration when setting its funding and investment strategy, and how this will evolve in the future.

## 2. ARTICLES

The recent articles can be found by following these links:

<https://carbontracker.org/reports/loading-the-dice-against-pensions/>

<https://www.chathamhouse.org/2023/07/climate-change-threatens-cause-next-economic-mega-shock>

[Carbon Tracker: Financial firms' 'flawed' climate models putting millions of pensions at risk \(professionalspensions.com\)](https://www.professionalspensions.com/news/carbon-tracker-financial-firms-flawed-climate-models-putting-millions-of-pensions-at-risk)

[Pension funds 'at risk' over climate change financial impact advice | Local Government Chronicle \(LGC\) \(lgcplus.com\)](https://www.localgovernmentchronicle.com/news/pension-funds-at-risk-over-climate-change-financial-impact-advice)

The research from Carbon Tracker, a non-profit company that examines climate risk, says economic papers ignore climate 'tipping points' that mean changes in the economic impact from global warming is "*far more likely to be discontinuous and abrupt, rather than continuous and relatively gradual*".

## 3. GWYNEDD PENSION FUND

We have raised the concerns with our advisors Hymans Robertson and they have stated that *'the reports raise valid concerns, which are the same concerns that we have discussed and take into consideration when developing our approach to climate modelling.'*

The most recent modelling that the Fund has commissioned is following the 2022 valuation. The 2022 modelling examined the resilience of our funding and investment strategy which may be experienced under different climate pathways, where the uncertainty over different periods is emphasised.

The climate risk information from this report can be found in Appendix 1.

The modelling for Gwynedd Pension Fund was performed using scenario analysis. Scenario analysis is one of the tools through which pension funds have been able to hold meaningful discussions on climate risk. While the modelling doesn't capture some of the more extreme scenarios, the models do still highlight potential for significant downside risk. The model demonstrated that the results for the Fund are reassuring –that the core model does not appear to be significantly underestimating climate risk.

#### **4. FUTURE DEVELOPMENTS**

Hymans Robertson and Gwynedd Pension Fund acknowledge that the approach needs to continue to evolve as the understanding of climate risk develops. Therefore, over the course of 2023, Hymans Robertson have been developing a new iteration of their approach to climate scenario modelling. The approach makes use of more detailed narrative scenarios, built up via understanding the underlying drivers and their dependencies. These detailed narrative scenarios allows for more extreme climate outcomes to be considered.

Any modelling should be supplemented with other analysis to allow for a more detailed discussion about what may happen. Measuring climate risk exposures and developing a climate transition action plan will be key next steps in addressing the climate change risks faced by the Fund, in particular, as we move towards implementing the TCFD requirements.

#### **5. RECOMMENDATION**

The Pension Board is asked to note the contents of this report and consider any associated risks.