



Government
Actuary's
Department

The Personal Injury Discount Rate

Review and determination of the rate in Northern
Ireland by the Government Actuary

24 September 2024
Fiona Dunsire, Government Actuary

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1. Executive summary

Background

- 1.1 The Personal Injury Discount Rate (PIDR) is used to determine lump sum damages awards to claimants who suffer a serious personal injury.
- 1.2 The Damages Act 1996, as amended in 2022 (together referred to as “the Act”), sets out the way in which the PIDR is to be set by the Government Actuary in my role as the “rate-assessor” as defined in the Act.
- 1.3 The Damages (Process for Setting Rate of Return) Regulations (Northern Ireland) 2024 (“the Regulations”) amends some of the parameters used in reviewing the PIDR, as set out in the Act (such as the investment period, allowance for the impact of taxation and costs of investment advice and management, damages inflation assumption and notional investment portfolio).
- 1.4 This report has been carried out at the request of the Department of Justice in Northern Ireland and has been prepared in accordance with the requirements of the Act and Regulations. This report sets out my determination of the PIDR, together with a summary of the calculations, on completion of my review on 24 September 2024.
- 1.5 The PIDR that is currently in force (prior to this review) is -1.5% p.a. net of damages inflation.

The Personal Injury Discount Rate (PIDR)

- 1.6 **Following my review of the PIDR I have determined that the rate should be +0.50% p.a. net of damages inflation.**
- 1.7 Table 1 provides a breakdown of this rate and sets out the different component parts that make up the PIDR.

Table 1: Breakdown of the Personal Injury discount rate

| | p.a. |
|--|----------------|
| Gross return from notional portfolio before adjustments | CPI + 3.50% |
| Standard adjustment for the impact of taxation and costs of investment advice and management | -1.25% |
| Standard adjustment for further margin involved in relation to the rate of return | -0.50% |
| Adjustment for damages inflation equivalent to Average Weekly Earnings (AWE) | -(CPI + 1.25%) |
| Personal Injury Discount Rate (net of damages inflation) | +0.50% |

- 1.8 The gross return from the notional portfolio of **CPI + 3.50% p.a.** represents my assessment of the median expected return on the notional portfolio over 43 years in accordance with the requirements of paragraphs 7, 9 and 12 of Schedule C1 of the Act, as modified by Regulations 2 and 3.
- 1.9 The personal injury discount rate is shown net of damages inflation which is assumed to increase in line with Average Weekly Earnings (AWE) as set out in Regulations 3(1) and 3(2).



Fiona Dunsire

Government Actuary, Fellow of the Institute and Faculty of Actuaries

2. Background and approach

This section provides background information on how the PIDR is set and an overview of the previous analysis the Government Actuary's Department ("GAD") undertook for the Northern Ireland Assembly which informed the parameters set out in the Regulations that feed into this review.

How the personal injury discount rate is used

- 2.1 Awards of damages for claimants with serious and long-term injuries are intended to provide victims with full and fair financial compensation for all the expected losses and costs caused by their injuries.
- 2.2 Where a claim component for future losses is settled as a cash amount, the assessment of future losses and costs is converted into a lump sum allowing for:
 - The period over which losses and costs are expected to be met.
 - The assumed investment return that the claimant is expected to earn on the lump sum award.
- 2.3 The assumed investment return is referred to as the Personal Injury Discount Rate (PIDR).

Legislative background and requirements

- 2.4 On 2 February 2022, the Damages (Return on Investment) Act (Northern Ireland) 2022 ("the 2022 Act") received Royal Assent. The 2022 Act amended the Damages Act 1996 ("the 1996 Act") and introduced a change to the way that the PIDR is set.
- 2.5 The 2022 Act amended the 1996 Act such that the Government Actuary, as the rate-assessor in Northern Ireland, is required to determine the PIDR with reference to the expected investment return on the notional portfolio set out in the Act.
- 2.6 The Damages (Process for Setting Rate of Return) Regulations (Northern Ireland) 2024 ("the Regulations") modified some parameters in the Act that are used in determining the PIDR.
- 2.7 The Act and Regulations require that this expected investment return is adjusted for:
 - The impact of taxation and costs of investment advice and management as set out in Regulations 2(3).
 - The further margin as set out in paragraph 10(2)(b) of Schedule C1 of the Act, which improves the likelihood of the claimant having sufficient funds to meet their damages.
- 2.8 This report includes the PIDR determined following my review and a summary of the calculations. This report has been prepared at the request of the Department of Justice in Northern Ireland in accordance with the requirements of the Act.

2.9 As required by paragraph 23(3) of Schedule C1 of the Act, the date this review was concluded and sent to the Department of Justice in Northern Ireland is 24 September 2024.

Approach to determining the personal injury discount rate

2.10 My approach to determining the expected investment return on the notional portfolio is to consider:

- Simulated portfolio returns using stochastic Economic Scenario Generators (ESGs) from two providers as at 31 March 2024.
- Other views on the returns of asset classes included in the notional portfolio such as GAD's own house views and publicly available views of investment managers and other advisers on long term investment returns.
- The experience in investment markets since 31 March 2024 which may impact the expected return on investment portfolios.

2.11 ESGs can be used to generate many possible future paths of economic and financial variables allowing for any assumed inter-dependencies that exist between each variable. I have used the ESGs to generate the possible future rates of inflation and expected investment returns that may be achieved from different asset classes. I have determined the expected investment return on the notional portfolio in the ESGs with reference to the median simulated return over the prescribed investment period (43 years) and compared this expected return against alternative views of investment returns.

2.12 Although the Act does allow me to consult in making my recommendation, I have not chosen to consult because I have been able to test the suitability of economic assumptions made against other publicly available sources and information provided to GAD directly.

Regulatory parameters used to determine the PIDR

2.13 Prior to this PIDR review, the Department of Justice in Northern Ireland asked the Government Actuary's Department (GAD) to produce analysis to inform the parameters and adjustments within the Act. The GAD report Personal Injury Discount Rate regulation features advice¹ dated 27 March 2024 considered the following factors:

- Notional investment portfolio
- Investment period
- Damages inflation
- Impact of taxation and costs of investment advice and management
- Additional Margin
- Dual or multiple rates

2.14 Based on GAD's advice, the Northern Ireland Assembly members chose to update the impact of taxation and costs of investment advice and management assumption to 1.25% p.a. (previously 0.75% p.a.). These changes were set out in the Regulations.

¹ [Personal Injury Discount Rate regulation features advice](#)

- 2.15 Additionally, the 1996 Act (and previous PIDR) referenced Retail Prices Index (RPI) as a measure of damages inflation. The Regulations have prescribed Average Weekly Earnings (AWE) in Great Britain as an alternative index of inflation that can be used instead of RPI. I have set an assumption for AWE over the notional investment period, which is set as an assumed fixed margin over Consumer Prices Index (CPI). More information on this assumption is set out in Section 3 of this report.
- 2.16 I have determined the PIDR net of damages inflation. As such, any comparison with the previous rate in this report is also shown using the rate net of damages inflation (which was assumed to be in line with RPI at the previous review).

3. Assumptions and parameters

This section sets out the assumptions made and parameters used in calculating the rate of return used to determine the PIDR.

Parameters specified in legislation

- 3.1 Many parameters for my determination are specified in legislation. The previous GAD advice informed the setting of these parameters by Northern Ireland Assembly Members, who considered these together as a whole and not in isolation from each other. The original parameters within the Act were scrutinised as part of the legislative process in Northern Ireland as the legislation was debated and approved by the Northern Ireland Assembly and received Royal Assent. The Regulations updated some of the parameters within the Act and were approved by the Northern Ireland Assembly and came into force on 1 July 2024.
- 3.2 These parameters are prescribed within Schedule C1 of the Act, as updated by the Regulations, and are summarised below for reference.

Table 2: Parameters prescribed within the Act and Regulations

| Prescribed parameter | Regulatory reference |
|---|--|
| Composition of notional investment portfolio as set out in Table 3 | Act paragraphs 7(2), 12 of Schedule C1 |
| 43 year investment period | Act paragraph 7(2)(b) of Schedule C1 |
| Allowance for the impact of inflation in Average Weekly Earnings on the value of the expected return on the notional portfolio | Act paragraph 9(2) of Schedule C1 and Regulations 3(1) |
| Deduction for the impact of taxation and costs of investment advice and management of 1.25% | Regulations 2(3) |
| Deduction for further margin of 0.50% | Act paragraph 10(2)(b) of Schedule C1 |

Table 3: Composition of notional investment portfolio

| Asset class | Notional investment portfolio allocation |
|--|--|
| Cash or equivalents | 10% |
| Nominal gilts | 15% |
| Index-linked gilts | 10% |
| UK equities | 7.5% |
| Overseas equities | 12.5% |
| High-yield bonds | 5% |
| Investment-grade credit | 30% |
| Property | 5% |
| Other types such as infrastructure, commodities, hedge funds and absolute return funds | 5% |

Other necessary assumptions

3.3 Although the Act and Regulations specify many of the material parameters for my assessment of the PIDR, it is still necessary for me to make a number of other assumptions in relation to the returns that I have modelled on the notional portfolio. These include:

- **Asset class assumptions** – assumptions made in mapping the asset classes within the notional portfolio to:
 - (a) Those available in ESG simulation sets and the indices and historical returns that these are calibrated to.
 - (b) Views on asset class returns that are provided by GAD and others.
- **Economic Assumptions** – simulations or views of inflation and asset class returns for a wide range of asset classes.
- **Average weekly earnings** – how average weekly earnings will progress in relation to inflation.
- **The investment approach** – the decisions investors make when investing the notional portfolio for example, to invest actively or to track an index.

Asset class assumptions

3.4 Given the wide range of possible asset return benchmarks, I have had to make assumptions in relation to how the notional portfolio is best represented and modelled. For example, which asset classes might best represent “other types” included in the notional portfolio. These assumptions are set out in Table 4 below. The approach is the same as the previous review of the rate of return used to determine the PIDR.

Table 4: Asset class assumptions for notional portfolio

| Notional portfolio | Notional investment portfolio allocation | Asset class assumption |
|--|--|--|
| Cash or equivalents | 10% | This is assumed to reflect returns on cash deposits or money market investments. |
| Nominal gilts | 15% | This is assumed to reflect a portfolio of UK fixed interest government bonds that broadly matches the duration of the investment period. |
| Index-linked gilts | 10% | This is assumed to reflect a portfolio of UK index-linked government bonds that broadly matches the duration of the investment period. |
| UK equities | 7.5% | This is assumed to reflect an investment in a broad UK equity market index of large companies. |
| Overseas equities | 12.5% | This is assumed to reflect an investment in a broad global/overseas developed market index (excluding the UK) of large/mid-sized companies. |
| High-yield bonds | 5% | Assumed to reflect an investment in a portfolio of high-yield corporate bonds containing sub-investment grade fixed-income securities issued by corporations in the US (as a proxy for developed markets). |
| Investment-grade credit | 30% | This is assumed to be a portfolio of GBP denominated investment grade corporate bonds that broadly matches the duration of the investment period. |
| Property | 5% | This is assumed to reflect investment in a portfolio of diversified, commercial property investments in the UK. |
| Other types such as infrastructure, commodities, hedge funds and absolute return funds | 5% | An equal split between commodities, global infrastructure, global private equity and global hedge funds is assumed. |

Economic assumptions

- 3.5 I have considered the GAD house view of future expected investment returns and simulations generated from two third-party models, calibrated to economic conditions as at 31 March 2024. I have also considered the publicly available views of other market commentators. Further detail on my approach can be found in Appendix B.
- 3.6 Investment markets are subject to short-term volatility linked to short-term political and financial uncertainties. Although such volatility influences the returns that an investor in the notional portfolio is likely to receive, the PIDR is expected to be in force for a number of

years and the legislation is constructed on the basis of a claimant investing over a 43-year period. As such, the focus is on likely returns over relatively long time periods.

- 3.7 The median investment return assumptions for each asset class are set out in Table 5 below. These returns have been annualised over the 43-year investment period.

Table 5: Median investment return assumptions

| Notional portfolio | Notional investment portfolio allocation | Median investment return assumption (annualised over 43-year investment period) |
|-------------------------|--|---|
| Cash or equivalents | 10% | CPI + 1.0% |
| Nominal gilts | 15% | CPI + 2.1% |
| Index-linked gilts | 10% | CPI + 1.9% |
| UK equities | 7.5% | CPI + 4.4% |
| Overseas equities | 12.5% | CPI + 5.4% |
| High-yield bonds | 5% | CPI + 3.9% |
| Investment-grade credit | 30% | CPI + 3.2% |
| Property | 5% | CPI + 3.0% |
| Other types | 5% | CPI + 3.1% |

- 3.8 The investment return assumptions in the table above are gross of any investment management charges. Investment management charges are included in the PIDR via the separate deduction for the impact of taxation and costs of investment advice and management.

Average weekly earnings assumption

- 3.9 The PIDR is shown net of damages inflation which is assumed to increase in line with Average Weekly Earnings (AWE). Therefore, I have made an assumption about how the future path of AWE may relate to CPI.

- 3.10 I have assumed that AWE will increase in line with **CPI + 1.25% p.a.** I have considered long-term historical rates of real earnings growth (since 1970s) and allowed for lower levels in more recent years. I have also considered other sources of information for this assumption such as the Office for Budgetary Responsibility's (OBR) assumptions and other views on earnings provided to GAD directly. Further information on this assumption can be found in Appendix B.

The investment approach

- 3.11 In my modelling of the expected investment return of the notional portfolio I have assumed that:
- The asset allocation remains constant throughout the entire period i.e. a claimant will rebalance their investment portfolio back to the notional portfolio allocation on an annual basis.

- The claimant uses index-tracking or passive investment approaches as far as possible for each applicable asset class.

3.12 The notional portfolio and expense allowance are set in legislation and assuming a return on index-tracking funds is consistent with how these have been derived. I have therefore not explicitly modelled enhancements to these returns from active management of each investment mandate, of the asset allocation or of the regular drawdown of funds. Return enhancements due to active management might result from the employment, at a cost, of persons or firms that are skilled in providing advice in these areas.

3.13 I believe that these assumptions are appropriate because:

- The notional portfolio defined in the Act provides an asset allocation which remains constant over the investment period.
- Such an approach is consistent with the level of investment expenses prescribed by the Act. In particular, I consider that the standard adjustment debated and chosen by Northern Ireland Assembly Members is broadly consistent with a passive or index-tracking investment approach.

Coherence of assumptions and parameters in aggregate

3.14 In calculating the rate of return used to determine the PIDR, I have considered the coherence of the assumptions and parameters in aggregate (including those specified in legislation and the other necessary assumptions) and believe them to be appropriate.

4. Results of review

This section sets out the PIDR I have determined following the review, and the sensitivity of the rate to a variety of factors.

Personal injury discount rate to be applied in Northern Ireland

- 4.1 Following the analysis I have carried out, and having regard to the provisions of paragraphs 19 and 20 of Schedule C1 of the Act (which set out the requirement to round the expected investment return to the nearest 0.25% p.a.), I expect the notional portfolio to produce a rate of return of **CPI + 3.50% p.a.** before any adjustments and gross of damages inflation.
- 4.2 Adjusting this for the impact of taxation and costs of investment advice and management (1.25% p.a.) and the further margin (0.5%) produces a rate of return of **CPI + 1.75% p.a.** gross of damages inflation.
- 4.3 Further adjusting this rate to reflect damages inflation in line with AWE (CPI + 1.25%) results in the **PIDR of +0.50% p.a. net of all adjustments and damages inflation.**

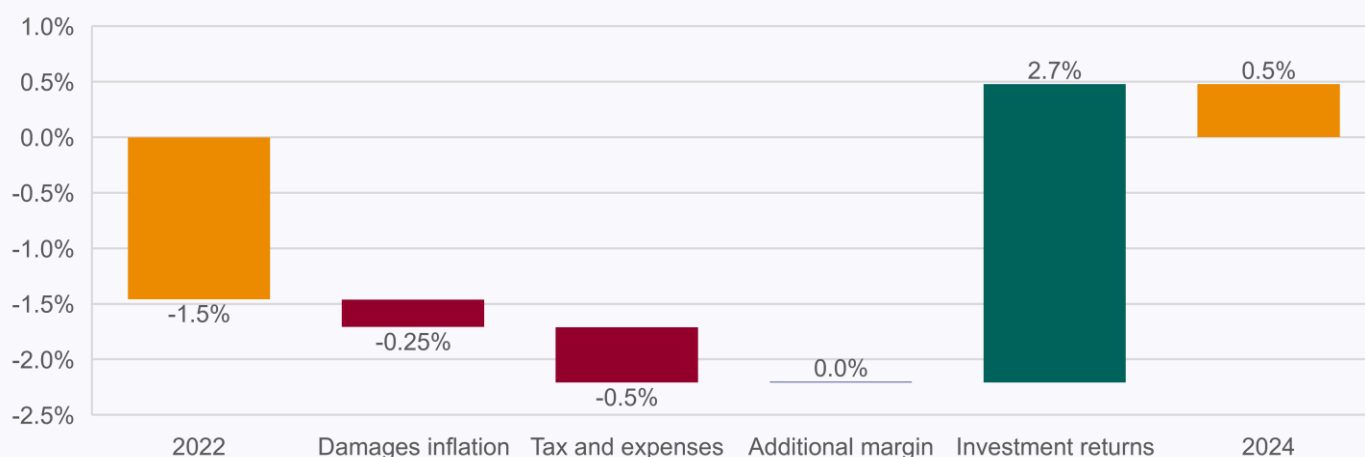
Table 6: Breakdown of PIDR

| | p.a. |
|--|----------------|
| Gross return from notional portfolio before adjustments | CPI + 3.50% |
| Standard adjustment for the impact of taxation and costs of investment advice and management | -1.25% |
| Standard adjustment for further margin involved in relation to the rate of return | -0.50% |
| Adjustment for damages inflation equivalent to Average Weekly Earnings (AWE) | -(CPI + 1.25%) |
| Personal Injury Discount Rate (net of damages inflation) | +0.50% |

Comparison with previous PIDR

- 4.4 The previous PIDR was set as **-1.5% p.a. net of damages inflation.** There are several reasons why the rate has increased in this review as summarised in Chart 1 below. The greatest impact on the change in PIDR has been the increased investment return expectations between the last review and this review, adding around 2.7% to the rate.

Chart 1: Attribution of the change in PIDR



Sensitivity of PIDR to assumptions

Economic assumptions and judgement

- 4.5 The determination of the PIDR is linked to the assumptions made in relation to anticipated investment returns and economic conditions. I have considered long-term market expectations over the period which the PIDR covers and believe the return assumptions to be appropriate. In setting the PIDR, I have taken views on appropriate economic assumptions to recognise the variety of risks and uncertainties (including systemic trends such as climate change) that could impact the rate of return used to determine the PIDR.
- 4.6 The investment and economic outlook is constantly evolving. As such, significant market movements over months or years between PIDR reviews would impact the rate that I set. Such movement may be significant and if appropriate the Department of Justice could decide to review the PIDR earlier via an extra review.

Asset class interpretation

- 4.7 Many of the asset classes in the notional portfolio have a fair degree of common understanding and interpretation across the investment industry and are the basis for GAD's own house views. Additionally, the ESG scenario sets that I have considered are calibrated to, and are intended to simulate returns on, broad market indices. I believe this is appropriate, as I believe such indices are representative of the returns that a hypothetical investor could achieve. In practice, investors may make decisions to invest in other ways – for example rather than investing in equities represented by a broad market index, an investor may tilt their portfolios towards particular sectors or types of investment. Although this will have some impact on returns, I do not expect that such approaches would lead to materially different returns over the long term after costs and hence do not believe it would have a material impact on the PIDR determined in this review.

Other prescribed parameters

- 4.8 The PIDR is also sensitive to the prescribed parameters set out in Section 3 (i.e. the composition of the notional portfolio, the investment horizon, inflation assumptions, standard adjustments for the impact of taxation and costs of investment advice and

management and the further margin). When these were set, the impact of uncertainty on these assumptions was considered and they were considered appropriate to represent claimants.

- 4.9 These assumptions may need to be updated at a future review of the PIDR, as markets and tax policy evolve. Any changes to these parameters will feed through to subsequent reviews of the PIDR.

Appendix A: Limitations and professional compliance

- A1. The analysis outlined in this report has been carried out in accordance with the applicable Technical Actuarial Standard: TAS 100, issued by the Financial Reporting Council (FRC). The FRC sets technical standards for actuarial work in the UK.
- A2. This report has been prepared for the use of the Northern Ireland Assembly and must not be reproduced, distributed or communicated in whole or in part to any other person without GAD's prior written permission.
- A3. Other than the Northern Ireland Assembly, no person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein, and GAD has no liability to any person or third party for any act or omission, taken either in whole or part on the basis of this report.
- A4. This report must be considered in its entirety, as individual sections, if considered in isolation, may be misleading, and conclusions reached by review of some sections on their own may be incorrect.

Appendix B: Economic and financial assumptions

I have considered the economic scenarios generated from proprietary third-party Economic Scenario Generators (ESGs). This appendix outlines further details on the assumptions underlying my analysis.

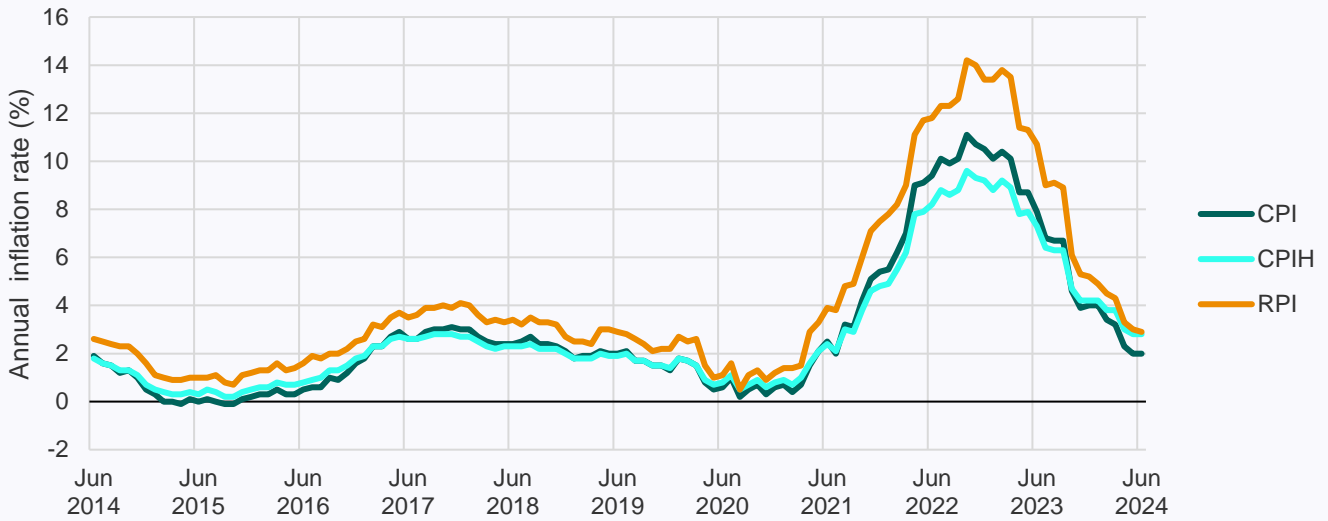
Investment Return assumptions

- B1. An ESG is a computer-based model of an economic environment. It can be used to generate many possible future paths of economic and financial variables allowing for inter-dependencies that exist between each variable. In this case, I have used the ESG to generate the possible future rates of inflation and investment returns that may be achieved from different asset classes.
- B2. To mitigate model error, I have generated 2,000 scenarios from two third party providers (Economic Scenario Generators). These were combined to provide an average across the two providers. The result of the simulations using both ESGs were broadly consistent with GAD's house view of future investment returns – which is reviewed regularly and informed by a broad range of external views and data sources. The simulations of future investment returns start from a recent and appropriate calibration date based on recent market conditions.
- B3. In simulating the future investment returns on the notional portfolio I have assumed that the investor makes regular withdrawals from the fund in order to meet their needs and, as a result, is exposed to the risk of withdrawals following a period of low returns. The Money-Weighted Rate of Return has been used throughout this report.
- B4. These simulations provide a distribution of the possible outcomes for each variable that is required for the analysis of the return on the notional portfolio.

Damages Inflation

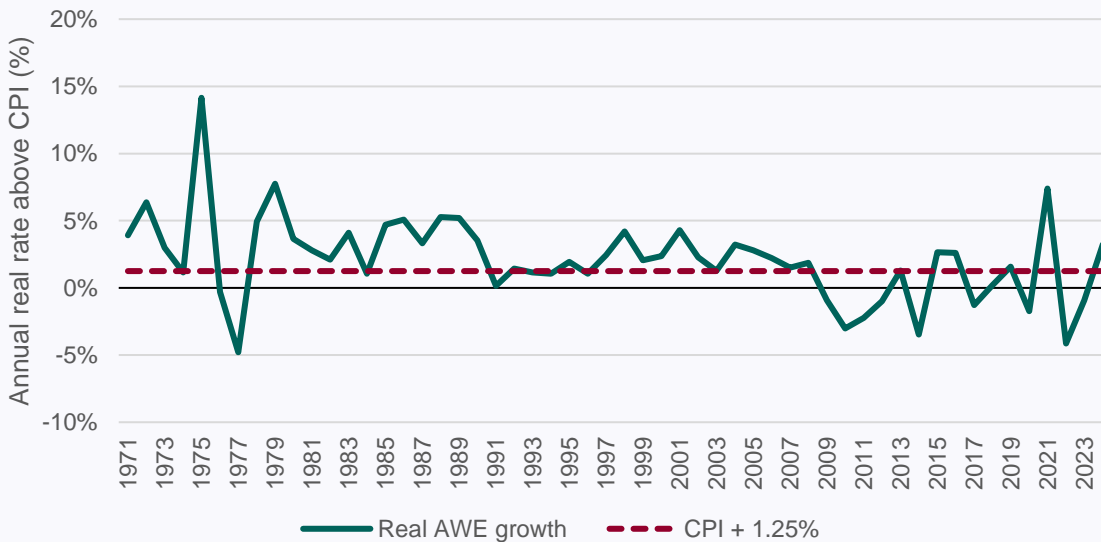
- B5. Average Weekly Earnings (AWE) is the reference inflation measure and I have modelled this as Consumer Prices Index (CPI) plus a margin of 1.25%. The rationale for this assumption is set out in this section.
- B6. The previous PIDR referenced Retail Prices Index (RPI) inflation. However, in 2020 the UK Statistics Authority and the UK Government issued a response to their joint consultation on aligning the methodology of RPI more closely with the methodology of “the Consumer Prices Index including owner occupiers’ housing costs” (CPIH). The UK Statistics Authority plans to change to the formula used to calculate RPI in February 2030 to align to CPIH.
- B7. CPI and CPIH have tended to be much closer to each other than to RPI (see chart B1 below). Although CPIH is the UK lead inflation index, CPI is used for the government's inflation target and therefore I have quoted investment returns and damages inflation in relation to CPI.

Chart B1: Historic RPI, CPI and CPIH index data



B8. I have assumed Average Weekly Earnings (AWE) will increase in line with CPI in the future, but at a higher rate. Historically earnings inflation has been higher than CPI for extended periods, then since the financial crisis in 2008 it has generally been lower. This can be seen in chart B2 below, which also includes a dotted line indicating my assumption of real AWE of 1.25% p.a..

Chart B2: Historic AWE inflation comparison, net of CPI, 1970 to 2024



B9. Table B1 below shows the relationship between CPI and AWE for various period since 1970.

Table B1: Historic AWE inflation average annual increase, net of CPI

| Averaging period | Average AWE above CPI (p.a.) |
|------------------|------------------------------|
| Since 1971 | 2.1% |
| Since 1980 | 1.7% |
| Since 1990 | 1.2% |
| Since 2000 | 0.9% |
| Since 2010 | 0.1% |
| Since 2020 | 0.8% |

- B10. Considering the average over the whole period, AWE was 2.1% p.a. higher than CPI. Whereas, since 2000 it has only been 0.9% p.a. higher than CPI. While there was an explainable dip around 2008, since this point, earnings inflation has been lower during the sustained period of low inflation post the Global Financial Crisis, albeit has increased to some extent through the recent period of high inflation.
- B11. Given the investment period is 43 years, I have considered the future outlook for AWE from a number of sources, alongside the historical long-term average rate of increase relative to CPI.
- B12. The Office for Budgetary Responsibility (OBR) produces assumptions around earnings over the long term. The OBR's medium-term forecast for average earnings inflation which ranges from CPI - 0.5% p.a. to CPI + 1.4% p.a. over periods to 2028. The OBR's longer-term outlook has earnings stabilising at CPI + 1.8% p.a. from 2036.
- B13. I have also considered information from academic and other sources on general future earnings inflation. These sources suggest a rate anywhere between CPI + 1.25% to CPI + 2% could be justified.
- B14. Therefore, my assumption of CPI + 1.25% for AWE has been set taking into account the longer- and shorter-term historical rates of earnings inflation relative to CPI and a range of forecasts of future earnings inflation.

Diversification assumption within the notional portfolio

- B15. My interpretation of how the asset classes that make up the notional investment portfolio are modelled are set out in Table 4 of Section 3 of this report. The return on the notional investment portfolio includes an allowance for diversification benefits, with the expected portfolio return being higher than the weighted sum of the expected return on the individual asset classes. This is because a well-diversified portfolio benefits from the fact that when some asset classes fall, others may increase, smoothing out the overall investment experience of the portfolio.
- B16. I have estimated that c. 0.4% p.a. of the total expected investment return for the notional portfolio comes from diversification benefits. Stochastically modelling the portfolio returns utilising the two ESGs allows for this diversification benefit within the overall expected return of the notional portfolio. This stochastic modelling involved projecting thousands of

simulated future paths for the portfolio and calculating the returns from those projections. Within those projections, assumptions have been made around how different asset classes move in similar or different ways to each other. This is known as their “correlation”. The impact of these correlations produces an estimate of the diversification benefits. The magnitude of the diversification benefit is consistent with our house view that portfolio returns are typically up to 0.5% p.a. higher than considering individual asset classes.