



Government
Actuary's
Department

The Personal Injury Discount Rate

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

15 March 2022
Martin Clarke, Government Actuary

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1. Executive Summary

Background

- 1.1 The Personal Injury Discount Rate ('PI discount rate') is used to determine lump sum damage awards to claimants who suffer a serious personal injury.
- 1.2 The Damages (Return on Investment) Act (Northern Ireland) 2022 ('the Act') sets out the way in which the PI discount rate in Northern Ireland is to be set by the Government Actuary, in my role as the 'rate assessor' as defined in the Act.
- 1.3 This report has 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. The report sets out my determination of the PI discount rate.

The PI discount rate

- 1.4 **Following my review of the PI discount rate I have determined that the rate be set to RPI-1.50% pa.** The PI discount rate is expressed relative to RPI (i.e. $RPI \pm X\%$ pa) as set out in the Act.
- 1.5 Table 1 provides a breakdown of how I have determined this rate.

Table 1: Breakdown of the PI discount rate

	% pa
Gross expected return above RPI inflation from notional portfolio before standard adjustments	RPI-0.25%
Standard adjustment for tax and costs of investment advice and management	-0.75%
Standard adjustment for further margin involved in relation to the rate of return	-0.50%
PI discount rate	RPI-1.50%

- 1.6 The return of RPI-0.25% pa represents my assessment of the median gross expected return over RPI inflation on the notional portfolio over 43 years in accordance with the requirements of Paragraphs 7, 9 and 12 of Schedule C1 of the Act. Whereas the standard adjustments are those deductions set out in Paragraph 10(2) of Schedule C1 of the Act.
- 1.7 Were the PI discount rate to be set with reference to average yields on Index-Linked Gilts as set out under the previous framework of the Damages Act 1996, I expect the resulting PI discount rate to be in the region of RPI-2.25% pa.

2. Background and approach

This chapter provides background information on how the PI discount rate is set.

How the PI discount rate is used

- 2.1 Awards of damages for claimants with serious and long-term injuries are intended to provide victims of life-changing events with full and fair financial compensation for all the expected losses and costs caused by their injuries.
- 2.2 Where a claim for future losses is settled as a single 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 a claimant can expect to earn on the lump sum award
- 2.3 The assumed investment return is referred to as the Personal Injury Discount Rate ('PI discount rate').

Legislative background and requirements

- 2.4 Hitherto the Damages Act 1996 ('the 1996 Act') provided for the Department of Justice in Northern Ireland (DoJ NI) to set the PI discount rate in Northern Ireland, and this was done based on principles set out in case law, principally the decision of the House of Lords in *Wells v Wells*¹. Under these principles the PI discount rate in Northern Ireland has been set with reference to average yields on Index-Linked Gilts - resulting in a current real PI discount rate of -1.75% pa².
- 2.5 On 2 February 2022, the Damages (Return on Investment) Act (Northern Ireland) 2022 ('the Act') received Royal Assent, thus amending the 1996 Act, and introducing a change to the way that the PI discount rate is to be set in the future. Sections 3 to 6 of the Act came into operation on 3 February 2022 and the remainder of the Act was commenced on 10 February.

¹ [1999] 1 AC 345

² This rate is net of RPI inflation

- 2.6 The Act requires the Government Actuary, as the rate assessor in Northern Ireland, to set the PI discount rate with reference to the return expected on the notional portfolio set out in the Act. The Act requires that this investment return is adjusted for:
- tax and costs of investment advice and management as set out in Paragraph 10(2)(a) of Schedule C1 of the Act; and
 - a ‘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.
- 2.7 This report includes the PI discount rate determined following my review and a summary of the approach adopted. This report has carried out at the request of the DoJ NI and has been prepared in accordance with the requirements of the Act. It was completed on 15 March 2022.
- 2.8 As required by Paragraph 3(1) of Schedule C1 of the Act, my review was due to be concluded and sent to the DoJ NI by 11 May 2022. Although I had until then to complete my review, I am pleased to have been able to conclude it earlier, in view of the forthcoming dissolution of the Northern Ireland Assembly.

Approach

- 2.9 My approach to determining the expected investment return on the notional portfolio has been broadly based and considers:
- GAD’s own house views on the likely future returns of asset classes included in the notional portfolio;
 - simulated portfolio returns using a stochastic Economic Scenario Generator (ESG) calibrated to economic conditions at 31 December 2021;
 - publicly available views of other market commentators on expected investment returns; and
 - the potential short- and long-term impact of current political and economic conditions.
- 2.10 GAD’s views of neutral assumptions for long-term inflation measures and asset returns are informed from a broad range of external views and data sources. This includes considering a combination of market data, historical rates and benchmarks, theoretical return methods and notable research, alternative publicly available views, alongside GAD’s own judgement of short-term volatility against longer term outcomes.
- 2.11 ESGs can be used to generate possible future paths of economic and financial variables allowing for any inter-dependencies that exist between each variable. In this case I have also considered an ESG to generate possible future rates of inflation and investment returns that may be achieved from different asset classes.
- Further details on the Economic Assumptions are outlined in Appendix B.
- 2.12 Although the Act does allow me to consult publicly in making my recommendation, I have not done so because I have been able to test the suitability of the economic assumptions made against other publicly available sources.

Previous GAD advice

2.13 Previously the DoJ NI asked the Government Actuary's Department (GAD) to provide advice in relation to the selection of the parameters and adjustments within the Act. The GAD memorandum dated 20 November 2020 (Appendix D) considered the following key factors:

- advice to inform the choice of the notional portfolio; and
- advice to inform the choice of the investment period.

Rest of this report

2.14 In the rest of this report:

- Chapter 3 outlines the assumptions and parameters I have used in my recommendation
- Chapter 4 outlines the results of my recommendation and the sensitivity to the assumptions used

3. Assumptions and parameters

This chapter sets out the assumptions made and parameters used in determining the PI discount rate.

Parameters specified in legislation

- 3.1 Many parameters for my determination are specified in legislation. The previous GAD analysis informed the setting of these parameters by Northern Ireland's Ministers, who considered these together as a whole and not in isolation from each other. They 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 in February 2022.
- 3.2 These parameters are now prescribed within Schedule C1 of the Act, have been incorporated into my assessment and are summarised below for reference.

Table 2: Parameters prescribed within the Act

Prescribed assumption/parameter	Regulatory reference
Composition of notional investment portfolio	Paragraph 7(2)(a), 12(3)
43-year investment period	Paragraph 7(2)(b)
Real returns to be assessed relative to RPI inflation	Paragraph 9(2)(a)
Deduction for tax and expense of 0.75% pa	Paragraph 10(2)(a)
Deduction for further margin of 0.50% pa	Paragraph 10(2)(b)

- 3.3 Although these parameters are prescribed and have been set by the Northern Ireland Assembly, Chapter 4 of this report does provide some further comment on the impact that they have on the PI discount rate determined.

RPI Inflation

- 3.4 As outlined in Table 2, the Act prescribes that I determine the real return on the notional portfolio, relative to RPI inflation. For this purpose, it is relevant to note the policy changes that may affect the RPI from 2030 onwards.
- 3.5 On 25 November 2020, the UK Statistics Authority (UKSA) 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). Their response confirmed the following:
- The UKSA confirmed its policy to implement the change at the earliest possible time it could.
 - The Government does not consent to the alignment of RPI with CPIH before 2030.

- 3.6 It is my understanding that the UKSA's policy intent is to make the change to the formula used to calculate RPI in February 2030 (at which point it does not need the Government's permission).
- 3.7 I estimate that the likely effect of this change will be to reduce RPI inflation by about 0.9% pa on average from 2030, given the parameters for the change in methodology for RPI set out by the UKSA. This is solely driven by a change in the way in which RPI is to be calculated and does not reflect a change in the actual prices of the underlying goods in the index. In other words, a representative consumer of the basket of goods in the index will not see any change in their real cost of living, as a result of the change to the definition of the index.
- 3.8 The decision to change the way that RPI will be calculated from 2030 is the subject of an ongoing Judicial Review. The case, which is expected to be heard later this year, therefore casts some uncertainty over the proposed changes described above.
- 3.9 To allow for the fact that investment returns will be offset by increases in claimant damages costs, as set out in Table 2, the Act requires that I assess real returns relative to RPI inflation over a 43-year period. In view of the legal challenge to the proposed intention to change the methodology of RPI to be more in alignment with the methodology of CPIH from 2030, and which may affect the policy or the way it was accomplished, I consider there to be sufficient uncertainty of the change in definition of RPI from 2030 onwards, to continue to allow for RPI in its current form in my assessment.
- 3.10 Other things being equal, were I instead to take into account the proposed change in methodology of RPI from 2030 onwards to be more aligned with CPIH, this would increase the required rate set out in this report by around 0.5% pa.

Other necessary assumptions

- 3.11 Although the Act specifies many of the material parameters for my assessment of the PI discount rate, 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:
- **Economic assumptions** – views or simulations of inflation and asset class returns for a wide range of asset classes
 - **Asset class assumptions** – assumptions made in mapping the asset classes contained in the notional portfolio to:
 - views on asset class returns that are provided by GAD and others; or
 - those available in ESG simulation sets and the indices and historical returns that these are calibrated to
 - **The investment approach** – the decisions investors make when investing in the notional portfolio

Economic assumptions

- 3.12 I have considered the GAD house view of future expected investment returns and scenarios employed from a third-party model, calibrated to economic conditions at 31 December 2021. I have also considered the publicly available views of other market commentators.
- 3.13 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 PI discount rate 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, although I have considered the recent volatility in economic conditions when forming my view of appropriate long-term assumptions.

Asset class interpretation

- 3.14 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 assets classes might best represent “other types” included in the notional portfolio. Appendix B contains further details on the asset classes that I have assumed and the broad market indices to which these asset classes are calibrated.
- 3.15 Further, in projecting the notional portfolio returns, I have assumed that investments within it are selected that are consistent with the specified investment period.

Investment approach

- 3.16 In my modelling of the return on the notional portfolio I have broadly assumed (i) the asset allocation remains constant throughout the entire period and (ii) benchmark or passive returns apply under each asset class.
- 3.17 I believe that it is appropriate to assume passive returns from a static asset allocation and with an unchanging investment objective because:
- the notional portfolio defined in the Act does not provide for the asset class allocation to alter over time;
 - the modelling of benchmark returns is consistent with the return series that are calibrated and included in the ESG scenario set, GAD’s house view and elsewhere; and
 - I believe such an approach to be consistent with the level of expenses prescribed by the Act. In particular, I consider that, the standard adjustment debated and chosen by the Northern Ireland Assembly was broadly consistent with a passive investment approach.

4. Results of review

This chapter sets out the resulting PI discount rate following the review, and the sensitivity of the rate to the economic assumptions made about the future.

PI discount rate to be applied in Northern Ireland

- 4.1 Following the analysis I have carried out, and having regard to provisions of Paragraphs 19 and 20 of Schedule C1 of the Act³, I expect the notional investment portfolio set out in Paragraph 12 of Schedule C1 of the Act to produce a rate of return of RPI-0.25% pa rounded to the nearest 0.25% pa. Table 5 in Appendix B sets out a broad breakdown of rate by the asset classes included in the notional portfolio.
- 4.2 Paragraph 10 of Schedule C1 of the Act sets out the standard adjustments that must be made to the rate of return to calculate the PI discount rate. These adjustments are deductions of:
- 0.75% pa for the impact of taxation and costs of investment advice and management; and
 - 0.50% pa as the further margin involved in relation to the rate of return.
- 4.3 Applying these adjustments to the rounded rate of return produced by the notional investment portfolio results in a final PI discount rate of **RPI-1.50% pa**.

Sensitivity of result

Economic assumptions and judgement

- 4.4 The determination of the PI discount rate is linked to the assumptions made in relation to anticipated investment returns and economic conditions. It is possible to take alternative views and judgements on expected returns which could be material.
- 4.5 In addition, the investment and economic outlook is constantly evolving. As such, significant market movements over months or years between PI discount rate reviews would impact the rate that I set. Such movement may be significant. For example, over the last few years, expectations of future inflation have increased whilst expectations of future returns on most asset classes have fallen. This results in a lower PI discount rate than would have been the case if it had been set a number of years ago.

Asset class interpretation

- 4.6 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 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 that it is likely that an informed investor would invest in

³ Which set out the requirement to round the expected investment return to the nearest 0.25% pa.

investments that are well represented by such indices. In practice, investors may make decisions to invest in other ways – for example rather than investing in equities represented by a broad all-share 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 and hence do not believe it would impact on the recommended PI discount rate.

Investment approach

- 4.7 I have assumed passive returns from a static asset allocation and with an unchanging investment objective. Broadly speaking, I would expect more active or engaged investment approaches to deliver better returns for the higher expenses that they typically attract – as otherwise such approaches would not be profitable and sustainable in a rational and competitive market.
- 4.8 Hence, making an alternative assumption that the claimant invests in a more active investment approach would be expected to increase the PI discount rate. However, I do not believe it to be appropriate to include in my determination, as it would result in an inconsistency between (i) the modelled investment approach and the prescribed notional portfolio; and (ii) the expenses that would be appropriate for the modelled investment approach and the prescribed allowance for expenses.

Other prescribed parameters

- 4.9 The PI discount rate is also sensitive to the prescribed parameters set out in Chapter 3 (i.e. the composition of the notional portfolio, the investment horizon, inflation assumptions, standard adjustments for tax and costs of investment advice and management and the further margin).
- 4.10 The prescribed parameters were scrutinised and debated as part of the legislative process in Northern Ireland prior to the Bill for the Act being passed by the Northern Ireland Assembly and receiving Royal Assent. The resulting parameters included within the Act were those that were considered together as a whole rather than being set in isolation from each other. However, I would note there are limitations and consequences of these parameters which I have covered in Appendix C.

Prior legislative approach

- 4.11 If the PI discount rate were to be reviewed and set with reference to the Wells v Wells principles set out in paragraph 2.4, then I would expect the resulting PI discount rate would be lower than the recommended rate, by around 0.75% pa. There are several reasons for this difference but it is being primarily driven by the change in the notional portfolio away from solely being based on index linked gilts.

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 DoJ NI 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 DoJ NI, 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.



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Appendix B: Economic and financial assumptions

This appendix outlines further details on the assumptions underlying my analysis.

Inflation

- B1. RPI is used as reference inflation measure throughout the analysis – as specified in the Paragraph 9(2) of Schedule C1 of the Act.
- B2. I have assumed the median annual RPI inflation over the 43-year period to be 3.5% pa. This projected inflation is broadly consistent with the GAD house view of the gap between RPI and CPI (of 1% pa on the current calculation approach), the expectation that the Bank of England's 2% CPI target will be met in the long-term and reflecting an expectation of higher inflation than the target in the medium term.

Asset withdrawal methodology

- B3. Making regular withdrawals from a fund can have a significant impact on the effective returns achieved – for example, making a large withdrawal from the fund following an early fall in asset values, will hinder an investment manager's ability to recover the fund in subsequent periods.
- B4. In technical terms – this is essentially the difference between Time-Weighted Rates of Return (which ignore withdrawals from the fund) and Money-Weighted Rates of Return (which are affected by withdrawals and additions to the fund).
- B5. I have assumed that the investor is financing 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.

Asset return assumptions within notional portfolio

- B6. My interpretation of how the asset classes that make up the notional investment portfolio are to be modelled are set out in Table 3 below, as required by Paragraph 12 of Schedule C1 of the Act.
- B7. I have also modelled the 'Other' asset class assuming it consists of equal proportions of commodities, hedge fund, infrastructure and private equity asset classes.

Table 3: Interpretation of investment assets used in the notional investment portfolio

Asset class	Portfolio proportion	Modelling interpretation
Cash or equivalents	10%	<p>This is assumed to reflect returns on cash deposits or money market investments.</p> <p>Return expectations are based on current UK gilt yields, whilst noting that the expected returns may differ (reflecting term premium and distortions in the market due to supply and demand). Historical interest rates and forecasts from other economic forecasters are also considered.</p>
Nominal gilts and index-linked gilts	15% and 10%	<p>This is assumed to reflect a portfolio of UK government bonds where the interest rate and inflation sensitivity has been chosen to broadly align with that expected by the recipient of a damages award.</p> <p>Return expectations are based on current gilt yields and historical gilt yields.</p>
UK equities	7.5%	<p>This is assumed to reflect an investment in a broad UK equity market for large/mid-sized businesses.</p> <p>Returns are broadly modelled as excess returns – i.e. as ‘inflation + real risk free return + an equity risk premium’. GAD’s house view is that an equity risk premium around 3% pa is reasonable for a broad, global, well-diversified equity market.</p>
Overseas equities	12.5%	<p>This is assumed to reflect an investment in a broad global/overseas developed market (excluding the UK) index for large/mid-sized businesses.</p> <p>Returns are modelled similarly to UK equities.</p>
High-yield bonds	5%	<p>Assumed to reflect an investment in a global portfolio of high-yield corporate bonds containing sub-investment grade fixed-income securities issued by corporations in developed economies.</p> <p>Returns are based on the yields on those assets, allowing for a deduction in respect of the expected losses due to default. GAD’s house view is that expected returns over gilts are around 2.25% pa.</p>
Investment-grade credit	30%	<p>This is assumed to be a portfolio of GBP denominated investment grade corporate bonds with redemptions dates selected to reflect the period of investment.</p> <p>Returns are based on the yields on those assets, allowing for a deduction in respect of the expected losses due to default.</p>

Asset class	Portfolio proportion	Modelling interpretation
		GAD's house view is that expected returns over gilts are around 0.6% pa.
Property	5%	<p>This is assumed to reflect investment in a portfolio of diversified, property investments in the UK.</p> <p>Returns are modelled similarly to equities – based on a risk premium approach. GAD's house view is that the expected returns on property are likely to be between that available on equities and investment grade corporate bonds. GAD's house view is that expected returns are around 1% pa below equities.</p>
Other	5%	<p>GAD does not form a specific house view on these particular asset classes but in aggregate considers it reasonable for their expected returns to be between that available on equities and investment grade corporate bonds.</p> <p>This is assumed to reflect investment in a portfolio of the asset classes below:</p>
Commodities	1.25%	GBP denominated diversified basket of commodities.
Hedge funds	1.25%	Global hedge funds with a range of strategies.
Infrastructure	1.25%	UK investments in listed equities in the infrastructure sector.
Private equity	1.25%	Global, diversified investment in developed market listed Private Equity companies.

- B8. The ESG implicitly allows for additional returns due to diversification benefits on an investment portfolio. GAD's house view considers each asset class assumption in turn and therefore an explicit diversification benefits assumption is required when considering a portfolio return. GAD's house view is that it considers it reasonable to add up to 0.5% pa for diversification.
- B9. Based on the data, methodology and assumptions set out in this report, the Table 5 below sets out what I have assumed to be the median money weighted return (in excess of RPI) for each asset class.

Table 5: Asset class return assumptions (in excess of RPI)

	Real return % pa (in excess of RPI)
Cash	-1.6%
Nominal gilts	-2.0%
Index-linked gilts	-2.2%
UK equities	1.7%
Overseas equities	2.2%
High-yield bonds	0.1%
Investment grade credit	-1.4%
Property	0.6%
Other	-0.4%
Notional portfolio	-0.2%

Source: GAD analysis

Appendix C: Consideration of prescribed factors

This appendix outlines further information on the prescribed factors.

- C1. The PI discount rate is sensitive to the prescribed parameters set out in Chapter 3. As the requirement of the Act for me to use these parameters, I have not analysed further the sensitivity of the PI discount rate to changes in them as part of this review of the PI discount rate. However, I would note the following key limitations and consequences of these parameters:
- **Notional portfolio** – claimants are likely to invest in a wide range of portfolios to reflect their individual circumstances. As such claimants may invest in portfolios that are materially different to the notional portfolio prescribed in legislation.
 - **Investment horizon** – depending on their needs and life expectancy, claimants are likely to have to invest their settlement over a period other than the 43-year investment horizon prescribed in the Act. Given the pattern of expected future investment returns, which at the present time are characterised by lower short-term but much higher long-term rates, claimants investing over much shorter or longer periods may be expected to earn returns that are materially different to the expected returns over 43 years.
 - **Inflation assumption** – this assumption has been discussed in Chapter 3. There is limited evidence of the level of damage inflation claimants are subject to. Depending on their needs, the rate at which a claimant's needs inflate in the future might be materially different to the prescribed RPI inflation assumption.
 - **Adjustment for tax and expenses** – the tax and expenses incurred by claimants will be unique and depend critically upon individual circumstances and other factors (such as the tax structure that is in force at the time and their chosen investment approach). I would observe that, were any significantly different views on expenses to be taken then, the simulated returns should also be reviewed, for example by adopting a more active investment approach, to ensure consistency. Notwithstanding this, some claimants might face higher or lower tax obligations and/or face higher or lower expenses as a result of investing a smaller or larger lump sum.
- C2. As a result of the above, there will be claimants in different circumstances to those that might be implied from the parameters prescribed in the Act, which may result in differences between their actual returns and the recommended PI discount rate. Such differences influence their ability to meet their needs from their settlement. Further, setting different parameters may materially influence the recommended PI discount rate.