GOVERNMENT ACTUARY'S DEPARTMENT

Actuarial assumptions for broad comparability assessments
Summary of consultation on the differential between RPI and LPI assumptions

Background

In February 2010 GAD issued a consultation on the actuarial assumptions used for assessing broad comparability. We have now received and considered responses to this consultation.

Following the close of the consultation, the Chancellor announced in his Budget statement on 22 June 2010 that future indexation to public service pensions would be in line with CPI.

This document summarises the consultation responses and sets out the assumptions which GAD intends to adopt for broad comparability, covering CPI as well as RPI indexation.

Consultation questions

The consultation questions were:

1. What is your view of a 'best estimate' assumption (or range of assumptions) for differentials between RPI and LPI[1] over the typical time horizons when these increases will apply? Please give a brief description of the rationale used in reaching your view.
2. Do you have views on any other assumptions used for assessing broad comparability (economic or demographic)? If so, please let us know your thoughts.

List of respondents

The following organisations responded to the consultation:

Association of Consulting Actuaries (ACA)
Confederation of British Industry (CBI)
Trades Union Congress (TUC)
National Institute for Social and Economic Research (NIESR)
First Actuarial
Hymans Robertson
Hewitt Associates

We thank all those who responded for their helpful input.

Differential between RPI and LPI: summary of responses

The comments below cover the differential between RPI and LPI with a 5% annual cap, as this was the assumption most respondents focused on. Similar comments apply to the other differentials.

The main methods of estimating the differential were:

> Looking at derivative market prices for RPI and LPI inflation swaps
> Stochastic modelling of future RPI.

Those who referred to the swap market suggested low differentials of up to 0.3% pa. However, some respondents commented that the swap market is distorted by supply and demand pressures and is not deep or liquid enough to provide a reliable guide.

Those who carried out stochastic modelling suggested differentials across a very wide range, from 0.05% to 1.6% pa. The differential is sensitive to the assumptions used in the model, in particular the assumed volatility and skewness in the distribution of future RPI inflation.

[1] Public service pensions are fully indexed before and after retirement. This indexation has up to now been in line with the Retail Prices Index (RPI), but the Chancellor announced in his 2010 Budget statement that it will in future be in line with the Consumer Prices Index (CPI). Many 'broadly comparable' schemes apply caps of 2.5% pa or 5% pa on indexation (limited price indexation or LPI). This means that the assumed differentials between full RPI or CPI indexation and LPI increases are important in assessing broad comparability.

Differentials between RPI/CPI and LPI: GAD's intended assumptions
No clear consensus emerged from the consultation. We therefore intend to adopt revised assumptions based on the results of GAD's analysis, supported by modelling from the National Institute of Economic and Social Research (NIESR). Assumptions for RPI and CPI differentials have been determined in a consistent way. The main assumptions to be adopted are as follows:

Differential between:	Previous assumption	New assumption
In payment:		
> RPI and RPI with **5%** annual cap	0.75% pa	0.65% pa
> RPI and RPI with **2.5%** annual cap	1.75% pa	1.40% pa
> CPI and CPI with **5%** annual cap	n/a	0.30% pa
> CPI and CPI with **2.5%** annual cap	n/a	0.90% pa
In deferment:		
> RPI and RPI with **5%** pa cap over period of deferment	0.25% pa	0.15% pa
> RPI and RPI with **2.5%** pa cap over period of deferment	n/a	0.90% pa
> CPI and CPI with **5%** pa cap over period of deferment	n/a	0.10% pa
> CPI and CPI with **2.5%** pa cap over period of deferment	n/a	0.50% pa

Mortality assumptions: summary of responses
The only other assumptions commented on by respondents were those for mortality. Comments received were as follows:

> Assumptions should be aligned with those used for valuations of public service pension schemes under the SCAPE mechanism

> Baseline mortality rates should be determined across the public sector as a whole, not on an individual scheme basis.

> SAPS S1 tables should be used for baseline mortality.

> More clarity is needed on the allowance for future improvements.

> The mortality basis needs to be strengthened.

> A 'floor' on future longevity improvements of at least 1% a year should be assumed.

Mortality assumptions: GAD's intended assumptions
GAD intends to adopt the following approach for mortality assumptions:

> Baseline mortality: scheme-specific, consistent with last published actuarial valuation. Scheme experience of baseline mortality varies because of schemes' differing membership profiles and we believe it is important to reflect this.

> Allowance for future improvements: based on latest (2008-based) ONS principal population projections.

Further information
We have now placed a revised note on our website at www.gad.gov.uk setting out the key actuarial assumptions for assessments of financial value for broad comparability. We also intend to provide a more detailed note on our website in due course setting out further background to the assumptions adopted for indexation with caps.

Government Actuary's Department
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