

## Consultation on the discount rate used to set unfunded public service pension contributions

Summary of responses



HM TREASURY

## Consultation on the discount rate used to set unfunded public service pension contributions

Summary of responses



Official versions of this document are printed on 100% recycled paper. When you have finished with it please recycle it again.

If using an electronic version of the document, please consider the environment and only print the pages which you need and recycle them when you have finished.

© Crown copyright 2011

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit http://www.nationalarchives.gov.uk/doc/opengovernment-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk.

ISBN 978-1-84532-865-8 PU1161



Official versions of this document are printed on 100% recycled paper. When you have finished with it please recycle it again.

If using an electronic version of the document, please consider the environment and only print the pages which you need and recycle them when you have finished.

© Crown copyright 2011

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit http://www.nationalarchives.gov.uk/doc/opengovernment-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk.

ISBN 978-1-84532-865-8 PU1161

## Contents

		Page
Chapter 1	Introduction	3
Chapter 2	The impact of a change in the SCAPE discount rate and the objectives for the rate	5
Chapter 3	Alternative methodologies for deriving the SCAPE discount rate	9
Chapter 4	The level of the SCAPE discount rate	15
Chapter 5	Future reviews of the SCAPE discount rate	19
Annex A	List of responses received to SCAPE discount rate consultation	21
Annex B	Glossary	23



### Introduction

**1.1** The Government announced in Spending Review 2010 that it would accept the recommendation of the interim report of Lord Hutton's Independent Public Services Pensions Commission (the "Commission") to review the discount rate used to set unfunded public service pension contributions. HM Treasury launched its consultation<sup>1</sup> on the discount rate in December 2010, and this closed on 3 March 2011.

**1.2** The focus of the consultation was the discount rate used to set contribution rates for the unfunded public service pension schemes through valuations following the Superannuation Contributions Adjusted for Past Experience (SCAPE) methodology – this is known as the SCAPE discount rate.

**1.3** The Treasury sought views on six questions:

#### **Box 1.A: Consultation questions**

- 1 Chapter 1 (of the consultation document) sets out the expected impacts of a lower discount rate. Are there any other impacts arising from a change in the discount rate?
- 2 Chapter 3 sets out the objectives for the Government in setting the SCAPE discount rate. Are there any other objectives which should be taken into account?
- **3** What are the advantages and disadvantages of the four options identified by the Commission for the approach to setting the SCAPE discount rate?
- 4 Are there further approaches to setting the SCAPE discount rate that the Government should consider? If so, what are their advantages and disadvantages?
- 5 What approach to setting the SCAPE discount rate do you recommend, and why? What actual discount rate do you consider to be appropriate?
- **6** Do you consider that there should be a regular review of the SCAPE discount rate? If so, how often should this take place?

**1.4** Thirty-eight responses were received from a broad range of organisations and individuals, encompassing representatives of employees and employers, actuaries and finance professionals, academics and individuals. A number of roundtable stakeholder events to further inform the consultation were also held. A full list is provided at Annex A. The Treasury is grateful to all those who contributed.

**1.5** A summary of consultation responses and the Government's conclusions follow. We have grouped these into four chapters:

<sup>1</sup> Consultation on the discount rate used to set unfunded public service pension contributions, HM Treasury, December 2010

- The impact of a change in the SCAPE discount rate, and the objectives for the rate
- Alternative methodologies for deriving the SCAPE discount rate
- The level of the SCAPE discount rate
- Future reviews of the SCAPE discount rate

**1.6** As with the consultation, this document only covers the discount rate used to set contributions.

#### Box 1.B: Appraisal Concepts

A notable feature of the consultation responses was that some terms and concepts were used in different ways by different respondents, particularly reflecting some small differences in the language commonly used by the actuarial and economist professions. For the sake of clarity, this document will define the concepts of economic and financial appraisals in the following way:

An **economic appraisal** seeks to answer the question: is this project worthwhile? It does this by making an assessment of the economic welfare implications of a proposal for UK society as a whole. The purpose is to compare it to alternative uses for the public funds involved. HM Treasury's Green Book<sup>2</sup> sets the framework for such assessments in central government. Combining this economic assessment with data on the proposal's Exchequer costs provides an indication of value for money.

A **financial appraisal** seeks to answer the question: is this project affordable? It considers the financial viability of the proposal by comparing the future costs of the proposal with the available resources.

A full appraisal requires both an economic and financial assessment to be completed separately. The judgement that a project is worthwhile, i.e. that the benefits to society outweigh the costs to society does not imply that it is affordable, i.e. that there are resources available to deliver it. And vice versa, an affordable project may not be the best use of funds – there may be alternative projects which deliver greater benefits to society for the same cost.

<sup>&</sup>lt;sup>2</sup> The Green Book: Appraisal and Evaluation in Central Government, HM Treasury, 2003

## The impact of a change in the SCAPE discount rate and the objectives for the rate

#### Box 2.A: Consultation Question 1

Chapter 1 (of the consultation document) sets out the expected impacts of a lower discount rate. Are there any other impacts arising from a change in the discount rate?

**2.2** Most respondents agreed that the impacts on employers, employees and Government expenditure set out in the consultation document were correct. Some respondents highlighted that if a change in the SCAPE discount rate led to a change in employee contribution rates this would alter the incentives for employees deciding whether to opt in or out of a scheme.

#### **Conclusion on Question 1**

**2.3** As the balance between employee and employer contributions was outside the scope of this consultation, the Government concludes that all relevant impacts have been captured. Paragraph 4.21 of this document sets out the Budget 2011 policy statement regarding member contribution rates.

#### Box 2.B: Question 2

Chapter 3 sets out the objectives for the Government in setting the SCAPE discount rate. Are there any other objectives which should be taken into account?

**2.4** The consultation paper set out that the purpose of the SCAPE discount rate is to set contributions such that:

- the value of benefits being earned today is recognised and total contributions reflect this;
- employers pay a charge that is appropriate for public service pensions schemes, just as private sector employers must pay contributions that are appropriate for funded pension schemes; and
- today's decisions by Government and public service employers about how many people to employ, as opposed to other forms of expenditure, take into account the full future cost of employing people today.

**2.5** In order to identify the appropriate discount rate to achieve this purpose, the consultation paper requested views on the following objectives:

- Fair reflection of costs;
- Reflect future risks to Government income;
- Support plurality of provision of public services;
- Transparent and simple;
- Stability; and
- Any other objective you identify.

**2.6** A number of respondents highlighted that there are inherent tensions between some of these objectives, and it is unlikely any choice of methodology would meet them all in full. Some of these respondents recommended developing a hierarchy amongst these objectives as a guide to what to prioritise.

**2.7** Almost all respondents agreed that the discount rate should represent a fair reflection of costs, although there were different interpretations as to what this meant in the pensions context.

**2.8** Most respondents agreed that the discount rate should reflect future risks to Government income. Again, there were different interpretations as to what this meant in a pensions context.

**2.9** Respondents expressed views both for and against including support for the plurality of provision of public services in the set of objectives. Some argued their position primarily on policy grounds, while others questioned whether this was an appropriate objective from a technical perspective.

**2.10** There was broad support that any methodology should be transparent. Some questioned whether it should also be simple, arguing that this was inherently a technical issue. They argued that priority should be given to getting the decision right, rather than favouring a simpler over a more complicated methodology per se.

**2.11** In general, respondents agreed that we should look to set a stable discount rate, although some of those in favour of linking the discount rate to a market-based rate such as Index-Linked Gilt yields thought this was less important.

**2.12** A wide range of other objectives were put forward in the consultation. There was strong support that the discount rate should serve to encourage the provision of high quality pensions in the public sector.

#### **Conclusion on Question 2**

**2.13** The Government continues to believe that all the objectives set out above are relevant to the choice of SCAPE discount rate. However, it agrees with the need to prioritise between them, and has decided on balance that two should be taken forward as primary objectives for the Government in setting contribution rates for the public service pension schemes, as best supporting the purposes set out above.

**2.14** First, the discount rate should represent a "fair reflection of costs", which should be interpreted as meaning that the future costs of today's pension promises are fairly reflected in current contributions (that is, there is inter-generational fairness looking at pension contributions relative to future benefits in payment on a stand-alone basis). Secondly, the discount rate should "reflect future risks to Government income", in the broad sense that, within this fairness principle, Government should have as much confidence as possible that promises made today are made on a sustainable basis, reflecting Government's ability to meet

future payments in order to ensure fairness to future taxpayers. As noted by many respondents, the Government recognises that it may be appropriate for alternative discount rates to be used for purposes other than those stated.

**2.15** This focus on affordability implies that the choice of discount rate methodology should be one which focuses on ensuring that the long term costs of pension provision are fully recognised consistent with a financial appraisal, rather than consistent with an economic appraisal (see box 1.B).

**2.16** Supporting the plurality of provision of public services remains Government policy. In light of consultation responses, the Government also supports the provision of high-quality public service pensions as an additional policy objective for the discount rate. However, the Government believes that neither objective should explicitly determine the choice of methodology or level of the discount rate.

**2.17** Through this document and future statements on this issue, the Government is committed to being transparent about the choice of discount rate methodology and the calculation of the appropriate number. While recognising the technical complexity of this policy area, the Government will seek to explain the rationale for the choices made as simply as possible.

**2.18** The Government accepts the need for stability in its choice of discount rate. Further detail on how this will be achieved is set out in chapters 4 and 5.

## Alternative methodologies for deriving the SCAPE discount rate

#### Box 3.A: Question 3

What are the advantages and disadvantages of the four options identified by the Commission for the approach to setting the SCAPE discount rate?

#### Box 3.B: Question 4

Are there further approaches to setting the SCAPE discount rate that the Government should consider? If so, what are their advantages and disadvantages?

#### Box 3.C: Question 5a

What approach to setting the SCAPE discount rate do you recommend, and why?

**3.2** The consultation asked for views on the four options highlighted in the Commission's interim report:

- a rate consistent with the private sector and other funded schemes;
- a rate based on the yield on index-linked gilts;
- a rate in line with expected GDP growth; and
- a Social Time Preference Rate (STPR) that makes allowances for the particular context of pension provision.

**3.3** Some support for each of these four options was expressed in responses to the consultation. Further to this, a number of respondents stated their support for the existing methodology without the need for adjustment, which was also identified in the consultation response as a possible option. Some other approaches were also put forward.

**3.4** Many responses from actuaries and finance professionals highlighted that the appropriate discount rate is dependent on the purpose and objectives of the calculations for which the discount rate is being used; different objectives would lead to different discount rates being chosen.

**3.5** As discussed above, the Government has identified the primary objectives for the discount rate as:

• representing a fair reflection of costs; and

• reflecting future risks to Government income.

**3.6** We consider arguments put forward in the consultation for and against each of the main options below, in light of these objectives:

#### A rate consistent with the private sector and other funded schemes

**3.7** Some responses favoured an approach setting the discount rate consistent with private sector and other funded schemes.

**3.8** The principal reason cited in favour of this approach would be to create a "level playing field" in pension costs between public and private sector providers. Supporters of this approach suggested it would help achieve the "plurality of provision" objective set out in the consultation document.

**3.9** The main argument presented against this approach to setting the discount rate was that it did not reflect the future costs of pension provision. A range of reasons were put forward why the costs of provision between the public and private sectors differ. On one hand, the Government has the benefit of economies of scale, offers a strong covenant<sup>1</sup> and does not need to bear the costs involved with pension fund investment management. On the other hand, private sector schemes have access to a wide range of assets, including risky asset classes both domestically and overseas which may offer high returns. Hence it was argued that adopting an approach consistent with private sector discount rates would not appropriately reflect the costs of public service pension provision.

#### A rate based on the yield on index-linked gilts

**3.10** A group of consultation responses made the case for a discount rate based on index-linked gilts (ILGs).

**3.11** Some of those favouring this approach argued that the best measure of the cost of an unfunded pension scheme is the cost of a funded scheme backed by assets of an equivalent maturity, risk profile and credit quality. They also argued that the assets which best meet these criteria are ILGs, and hence the SCAPE rate should be linked to the yield on ILGs. Others favouring this approach argued that ILGs represent the value attached by capital markets to future government cash-flows and so should be used for this reason.

**3.12** A number of arguments were put forward against using ILGs as the basis for the SCAPE discount rate. First, that this option in effect answers a slightly different question: what would be the cost to an individual of buying a funded pension pot with the same characteristics as an unfunded public service pension scheme? This is unlikely to be the same as the cost to Government of providing such a pension scheme. The monopolistic nature of the ILG market, with Government as the largest supplier, means that the price paid by purchasers of ILGs differs from the marginal revenue to Government. In making its supply decision, Government must take into account the impact on the ILG price of increasing or decreasing supply, and the broader impact this has on its overall exposure to inflation risk.

**3.13** Secondly, that if the Government moved the unfunded public service schemes onto a funded basis and issued gilts to the schemes to the value of its currently unfunded liabilities, there could be a significant market effect. It would be possible to require the public sector

<sup>&</sup>lt;sup>1</sup> The ability and willingness of an employer to support the pension scheme in the long term.

schemes to hold the gilts to maturity in which case there should be no direct impact on yields in the traded market. But if schemes were permitted to diversify their portfolio and sell their gilts in order to invest in higher-yielding assets, yields would rise, probably significantly. Arguably, a SCAPE rate set on the basis of ILGs should be based on this counterfactual, although identifying the appropriate rate to use would be difficult in practice.

**3.14** Finally, that the yield on ILGs varies considerably over time. Depending on the nature of any smoothing applied, this could result in a less stable discount rate.

#### A rate in line with expected GDP growth

**3.15** A number of responses argued for the adoption of a GDP-based measure as the basis of the SCAPE discount rate.

**3.16** Those in favour of a GDP approach argued that as the future source of income to fund pension liabilities is the tax base, contributions in the public service unfunded schemes should be set with reference to the future growth of that income stream. Therefore, the discount rate should be set equal to the forecast growth of the tax base, for which the best proxy is the expectation of future GDP growth. As this methodology is based around future affordability constraints, it was argued that a discount rate based on the forecast of GDP growth best ensures that the future cost of the public service unfunded schemes remains affordable.

**3.17** Another argument made in favour of a GDP-based measure was based on intergenerational fairness. By ensuring that the share of contributions in GDP today is equal to the future cost of the associated pensions as a share of GDP, this methodology avoids passing a disproportionate cost of today's promises onto future taxpayers.

**3.18** One response made reference to the Aaron-Samuelson rule<sup>2</sup>, which suggests that pension liabilities should be discounted at the expected growth of the overall paybill (broadly the sum of the rates of labour growth and productivity growth). In the long run this combined growth rate would be expected to approximate GDP growth.

**3.19** However, some responses argued that a discount rate derived from GDP growth would make it more difficult to conduct comparisons of the costs of pensions across the public and private sector, as the discount rate would be set on the basis of broad affordability considerations rather than the cost of providing a pension to an individual. Some also highlighted the drawbacks of basing the discount rate on a forecast, which would be subject to forecast error and other uncertainties.

#### A rate based on the Social Time Preference Rate (STPR)

**3.20** A further set of responses to the consultation supported the retention of an STPR-based approach. Some supported adjustments being made to the discount rate being used to support the particular context of pension provision, while others thought the current methodology should be kept.

**3.21** Most respondents favouring the STPR argued that the Government's decision to provide a pension is a choice about the use of public funds and therefore similar to the decision taken about any other spending project. The decision should therefore be considered on a consistent basis, and future costs and benefits should be discounted at the STPR in both cases.

<sup>&</sup>lt;sup>2</sup> The Social Insurance Paradox, Henry Aaron, The Canadian Journal of Economics and Political Science/ Revue canadienne d'Economique et de Science politique, Vol 32, No.3, August 1966

**3.22** On a practical level, there was also support for retaining the existing methodology for the SCAPE discount rate on the basis of stability.

**3.23** In terms of the suggested adjustments to the STPR, there was some discussion about the relevance of the catastrophe risk component of the STPR discount rate in the context of pensions. Some argued that the risk of catastrophes increases potential liabilities, and that the inclusion of a catastrophe risk component in the discount rate should therefore be expected to increase rather than decrease contributions. It was also highlighted that the time preference component could be subject to debate as it may imply that the welfare of current recipients is valued more highly than those in the future. That said, the removal of this component did not receive strong support in the consultation. Finally, some noted that the Green Book identifies that a lower STPR discount rate should be used when discounting very long term liabilities, but this is not reflected in the current SCAPE discount rate.

**3.24** Some practical arguments were made against STPR, such as the relatively old age of some of the supporting research, and a lack of simplicity.

**3.25** An alternative argument identified that using an STPR rate in excess of long-run GDP growth implies that contribution rates today as a percentage of GDP would be less than the future cost of the pensions as a share of GDP. This results in the obligations incurred today leading to a disproportionate increase in the claims on future tax income, which was considered inequitable.

#### **Other alternatives**

**3.26** Some responses suggested that, given that legitimate arguments could be made for a number, or indeed all, of the approaches discussed, a pragmatic approach may be to consider the appropriate discount rate levels associated with each and take a midpoint. Some responses also made reference to a comparison with other countries' practices.

### Box 3.D: Economic and Financial appraisal in the context of the public service unfunded pension schemes

Box 1.B defined the concepts of economic and financial appraisal, and highlighted that the economic and financial assessments of a proposal are separate. This box explains in more detail how an economic and financial assessment should be completed in the context of the unfunded public service pension schemes.

#### Economic Appraisal

HM Treasury's Green Book sets the framework for the economic assessment of proposals in central government, including those related to pensions. It seeks to assess the economic welfare implications of a proposal for UK society as a whole for the purposes of comparing it with alternative uses of the public funds involved. It recommends that a Cost Benefit Analysis (CBA) be conducted, which:

- Includes costs and benefits both to government and wider society;
- Includes wider social and environmental benefits;
- Excludes any payments which represent transfers between sections of society (e.g. tax and benefit payments) on the grounds that these do not add to the sum total of economic welfare (the value of redistribution aside);
- Excludes inflation; and
- Discounts costs and benefits at the Social Time Preference Rate (STPR).

The economic appraisal of a government project does not assess the cost of the associated pensions in isolation. Rather, it takes the full cost of the project, including pension benefits at the time they are consumed, into consideration. However, public sector employer contributions should not feature in the appraisal as they represent a transfer payment rather than a real use of resources.

#### Financial Appraisal

Most government spending decisions can be managed within the framework of multi-year budget settlements set out in Spending Reviews. Affordability can be judged directly against each department's planned resource allocations.

Pension liabilities are much longer-term in nature, and extend well beyond the planning horizon for departments so it is more difficult to assess affordability directly. But it is important that today's employment decisions by public service employers still take into account these future costs, to ensure that these remain affordable for future taxpayers. Employer contributions, which flow back to the Exchequer, serve as a management charge to ensure public service employers take future costs into consideration when making employment decisions.

#### **Conclusion**

This reiterates that an economic appraisal and a financial appraisal of pension provision are quite different; the judgement that a project is worthwhile does not imply that it is affordable, and vice versa an affordable project may not be the best use of funds. Both aspects should be conducted to reach a full view. The discount rate used in the two assessments can be different to reflect the different purposes of the assessment, and therefore the different objectives for the discount rate in each case.

#### Conclusion on Questions 3, 4 and 5a

**3.27** The Government recognises that there are cases to be made for all the options, and the decision is finely balanced. Each presents a valid answer to different purposes the discount rate could be used for.

**3.28** In light of the purpose defined in Chapter 2, and the weightings given to the various objectives, the Government's judgement is that the SCAPE discount rate should be set with reference to the future costs of public service pension provision, in order to support a long term financial appraisal of affordability.

**3.29** Given these objectives, the Government is not persuaded that a rate consistent with the private sector and other funded schemes would be an appropriate choice as the discount rate used to set unfunded pension scheme contributions. It reflects the costs inherent in a scheme backed by a portfolio of assets (traded bonds and equities) not held by the unfunded public service schemes (whose assets are claims on future tax revenues).

**3.30** These objectives also suggest that a SCAPE rate based on STPR is not the most appropriate option. The STPR is appropriate for, and should continue to be used for, contributing to an economic appraisal of the value for money of pensions commitments compared with alternative spending proposals (or, in the indirect case, to assess the value for money of a particular project with pension cost implications versus other investments), as set out in box 3.D. But this is not the primary objective the Government has identified for the SCAPE rate.

**3.31** While Government sees the advantages of a market-based, ILG-linked discount rate, it finds the arguments against this option persuasive, particularly in light of the imperfect nature of this market.

**3.32** In contrast, the Government believes that a rate based on expected long-term GDP growth best meets the purposes and objectives identified, and provides both a theoretically sound and practical methodology for setting the SCAPE rate. Although the Government recognises the potential problems associated in basing a discount rate on a projection subject to forecast error and uncertainty, it believes these are manageable in the context. The Government will therefore change the methodology used to set the discount rate by adopting the GDP growth approach.

## The level of the SCAPE discount rate

#### Box 4.A: Question 5b

What actual discount rate do you consider to be appropriate?

**4.2** The consultation asked for views on what the appropriate figure would be based on each respondent's preferred methodology for setting the SCAPE discount rate. A broad range of responses was received.

**4.3** Chapter 3 concludes that the Government recognises that there are legitimate arguments in favour of the four alternative methodologies put forward by the Commission, but on balance believes GDP growth provides the best alignment with its stated objectives for the discount rate. However, for the purposes of completeness and comparison, this section will also set out the rates which it may have been appropriate to adopt under the alternative methodologies. These are presented as ranges, reflecting the arguments in each case for different actual rates.

**4.4** The Government notes that in light of the change in uprating of public service pensions in line with the Consumer Prices Index (CPI), rather than the Retail Prices Index (RPI), computational considerations suggest that the real discount rate should be defined in relation to CPI inflation. Where other inflation measures are used, assumptions should be made regarding the gap between the alternative measure and the CPI.

**4.5** The consultation document noted that where responses suggested discount rates net of RPI, it would be assumed that the equivalent discount rate net of CPI would be 0.75 percentage points higher. The majority of respondents either did not comment on the inflation measure to use or used the assumption that discount rates net of CPI are 0.75 percentage points higher than discount rates net of RPI. Although some argued for an alternative assumption based on a smaller gap, we have retained this assumption in the analysis that follows.

#### A rate consistent with the private sector and other funded schemes

**4.6** Responses favouring a rate consistent with the private sector suggested a suitable range for the discount rate might be 2.5 - 3.0 per cent + RPI. This is consistent with the range suggested in the interim report of the Independent Public Service Pensions Commission. This gives a range of  $3^{1}/_{4}$  -  $3^{3}/_{4}$  per cent + CPI.

#### A rate consistent with the yield on index-linked gilts (ILGs)

**4.7** The yield on ILGs is a market rate and changes daily. Responses in favour of this methodology consequently did not generally provide an exact figure to use as a discount rate, although it was highlighted that the current rate on long-dated gilts is around or below 1 per cent per annum.

**4.8** One response suggested that the stabilised, long-dated index-linked gilt yield might be an appropriate methodology for setting the discount rate in order to achieve greater stability, and suggested a rate of 1.75 per cent + RPI per annum might be appropriate. Using the assumed difference between RPI and CPI, this equates to a discount rate of  $2\frac{1}{2}$  per cent + CPI

**4.9** The Government recognises that ILG rates are variable, and currently lie significantly below their long-run average. It notes that using a simple long-term historical average may also provide an appropriate comparator. This currently stands at around 2.3 per cent net of RPI for both 10 and 20 year gilts<sup>1</sup>, broadly consistent with long-run average real GDP growth of 2.4 per cent. This data suggests an alternative discount rate of 2.3 per cent + RPI, or roughly 3 per cent + CPI.

#### A rate based on the Social Time Preference Rate (STPR)

**4.10** Responses in favour of the Social Time Preference Rate (STPR) generally supported retaining the current rate of 3.5 per cent + RPI (equivalent to 4.25 per cent + CPI). One response suggested removing catastrophe risk from the STPR, resulting in a rate of 2.5 per cent + RPI.

**4.11** As highlighted previously, some consultation responses noted that the Green Book suggests that a real discount rate of 3.0 per cent should be used for cashflows with a term of 31 to 70 years (with discount rates decreasing further beyond this point).

**4.12** The Social Time Preference Rate (STPR) is a real discount rate and must be applied to cashflows calculated in real terms. The Green Book states that over a long term period, the Bank of England's inflation target is the appropriate measure of prices to use as a general deflator. This is currently set in terms of the Consumer Prices Index (CPI).

**4.13** However, the Green Book does allow for a different inflation assumption to be used where "particular prices are expected to increase at significantly higher or lower rates than general inflation". In the past, public service pensions were uprated by RPI inflation and so an inflation assumption linked to RPI was considered most appropriate. However, public service pensions will be uprated by CPI inflation from April 2011 and so an inflation assumption based on the CPI may now be more appropriate to remain consistent with the Green Book.

**4.14** Reflecting the broad range of views about the right STPR rate, a range between  $3 - 4\frac{1}{4}$  per cent + CPI might be appropriate.

#### **Conclusion on Question 5b**

#### A rate consistent with expected GDP growth

**4.15** The Government believes that a rate based on expected long-term GDP growth best meets the purposes and objectives identified, and will therefore change the methodology used to set the discount rate by adopting the GDP growth approach.

**4.16** Those responses that supported a methodology based on long term expectations of GDP growth proposed a range for the actual figure of 2.0 - 2.5 per cent + RPI. This is consistent with the range suggested in the interim report of the Commission. One response proposed using an average of different GDP growth projections.

<sup>&</sup>lt;sup>1</sup> Data for the period July 1992 – March 2011

**4.17** A discount rate consistent with expected growth of overall pay bill (consistent with the Aaron-Samuelson rule), which is broadly similar to the sum of productivity and labour growth rates would provide a real rate of 2.0 - 2.5 per cent per annum.

**4.18** The Government believes the most appropriate forecast currently available for long-term GDP growth is the Office for Budget Responsibility's (OBR's) projection for the period 2016-2050, set out in the November 2010 Economic and Fiscal Outlook<sup>2</sup>. The OBR project average real GDP growth of 2.2 per cent per annum over the period. They use a constant assumption of 2.7 per cent per annum for the GDP deflator over the period, giving a projection for average nominal GDP growth over the period of 4.9 per cent per annum.

**4.19** As pensions are uprated in line with CPI, some assumption needs to be made about the relationship between the GDP deflator and CPI for calculation purposes. Alongside the GDP deflator assumption of 2.7 per cent over the period 2016-2050, the OBR uses a CPI assumption of 2 per cent. The Government will therefore assume for the purposes of this calculation that the difference between the two measures will average 0.7 percentage points per annum in the long term.

**4.20** This assumption therefore suggests that a discount rate of 2.2 per cent + GDP deflator in line with the OBR forecast is broadly consistent with a discount rate of 2.9 per cent + CPI. Given the range of uncertainties inherent in these provisional forecasts, and that a rounded figure may support stability, the Government believes a discount rate of 3 per cent per annum+ CPI should be adopted under this methodology for future valuations.

**4.21** The Chancellor confirmed at Budget 2011 that this change in the discount rate will not lead to an increase in member contribution rates beyond those already announced at the Spending Review 2010.

#### Comparison

**4.22** The Government believes the GDP methodology most closely meets the objectives it has set for the SCAPE discount rate, and that therefore a rate of 3 per cent + CPI should be adopted. The Government notes by way of comparison that the alternative methodologies currently produce similar numbers in practice, and the GDP methodology produces a figure broadly in the middle of the alternative options. This is therefore also broadly consistent with the alternative methodology put forward and described in paragraph 3.26, which suggested using the midpoint of a range of methodologies. However, it recognises that given the volatility of the ILG measure in particular, this may not be the case at future reviews.

Table 4.A: Table of alternative discount rates	(per cent per annum)
--	----------------------

Methodology	Private Sector	ILG	STPR	GDP
Discount rate	3 <sup>1</sup> / <sub>4</sub> - 3 <sup>3</sup> / <sub>4</sub> + CPI	1 - 3 + CPI	3 - 4¼ + CPI	3 per cent + CPI

<sup>&</sup>lt;sup>2</sup> www.budgetresponsibility.independent.gov.uk

## Future reviews of the SCAPE discount rate

#### Box 5.A: Question 6

Do you consider that there should be a regular review of the SCAPE discount rate? If so, how often should this take place?

**5.2** A broad range of views was expressed on how regularly the discount rate should be reviewed. At one end of the spectrum, some responses argued that regular review was unnecessary, while others suggested that the rate be reviewed at least annually.

**5.3** The majority of responses suggested that stability was important in setting the discount rate and that the long term nature of pensions should be taken into account when considering the review period. A significant number of responses were in favour of a review in the range of three to six years.

#### **Conclusion on Question 6**

**5.4** The Government recognises the importance of stability in a discount rate used to set contribution rates that will impact on employment decisions.

**5.5** Balancing the need for stability with the attraction of reviewing the discount rate periodically, the Government proposes to review the level of the discount rate every five years and the methodology every ten years. The Government may also review the discount rate "out-of-cycle" in the event of a significant change in circumstances.

## List of responses received to SCAPE discount rate consultation

The Government received submissions to the consultation from the following Trades Unions, private sector providers of public services, pensions professionals and commentators, and individuals:

- The Actuarial Profession
- Professor Alasdair Smith
- Association of Chief Police Officers in Scotland
- Association of Consulting Actuaries
- Association of School and College Leaders
- Board of Strathclyde Fire and Rescue
- Board for Actuarial Standards
- British Dental Association
- Business Services Association
- Chartered Institute of Public Finance and Accountancy
- Confederation of British Industry
- Convention of Scottish Local Authorities
- Derek Lindsay
- EFFAS-EBC European Bond Commission
- GMB
- Hymans Robertson
- Intergenerational Fairness Initiative
- John Ralfe Consulting
- Local Government Employers
- Lucy Currie
- Mercer
- NASUWT
- National Association of Pension Funds
- National Union of Teachers
- Neil Record

- NHS Pension Scheme Governance Group
- Northern Ireland Public Service Alliance
- Pensions Policy Institute
- Police Negotiating Board
- Prospect
- Public and Commercial Services Union
- PWC
- Professor Richard Disney
- SERCO
- Teachers' Superannuation Working Party Teachers Side
- Trades Union Congress
- UNITE
- One individual requested that their submission remained confidential

The Government also held a number of roundtable events for representatives of Trades Unions, private sector providers of public services, pensions professionals and pensions commentators. Events were held on:

- Friday 28 January 2011 (London)
- Thursday 3 February 2011 (London)
- Friday 11 February 2011 (Edinburgh)
- Tuesday 22 February 2011 (Belfast)

# **B** Glossary

**Defined benefit (DB) pension scheme:** A pension scheme where the pension is related to the member's salary or some other value fixed in advance.

**Discount rate:** A discount rate is the rate at which a future payment or stream of payments is converted into a single value today.

**Employee contribution rates:** The percentage of their pensionable salary that employees pay as a contribution towards their benefits from a pension scheme.

**Employer contribution rates:** The percentage of the salary of employees that employers pay as a contribution towards the employees' pension.

**Funded pension schemes:** Pension schemes in which pension contributions are paid into a fund that is invested and pension benefits are paid out of this fund.

**Independent Providers:** This includes private sector businesses and non-profit making organisations such as charitable bodies and social enterprises.

**Index linked gilt yields:** The return on UK government bonds for which both semi-annual and principal payments are adjusted for inflation.

**Independent Public Service Pensions Commission:** An independent commission undertaking a fundamental structural review of public service pension provision which reported to Government on 10 March 2011.

**Public service pension schemes**: Pension schemes authorised by statute provided for public service employees by the relevant employer. The main schemes are those for civil servants, the armed forces, NHS employees, teachers, local government employees, the police and firefighters. There are over 200 public service pension schemes.

**SCAPE discount rate:** The discount rate used to set contribution rates for the unfunded public service pension schemes under Superannuation Contributions Adjusted for Past Experience methodology and the focus of this consultation.

**SCAPE methodology:** Methodology used to set contribution rates for the unfunded public service pension schemes. See Annex D for details.

**Social Time Preference Rate (STPR):** An estimation of society's preference for consumption sooner rather than later, used in the Government's investment appraisals of different projects that involve spending money in the short term to deliver future welfare benefit.

**Unfunded pension scheme:** Public service pension schemes which are not backed by a pension fund. Instead Exchequer income is used, along with contributions, to pay current pensions.

#### HM Treasury contacts

This document can be found in full on our website at: hm-treasury.gov.uk

If you require this information in another language, format or have general enquiries about HM Treasury and its work, contact:

Correspondence Team HM Treasury 1 Horse Guards Road London SW1A 2HQ

Tel: 020 7270 4558 Fax: 020 7270 4861

E-mail: public.enquiries@hm-treasury.gov.uk

