

Cost Management and Contributions Sub-Committee

Item 5 - Paper 5d - Assumptions for use in cost management process and consistent funding level calculations

Introduction

1. This paper has been drafted in order for the sub-committee to consider and make recommendations to the Shadow Scheme Advisory Board in respect of the assumptions which should be adopted for:
 - a. the SAB Future Service Cost (FSC) process, and
 - b. the calculation of a consistent measure of funding for LGPS pensions funds.
2. As part of the implementation of the new benefits structure in most public service pension schemes, the Government has mandated for periodic reviews of the costs of the reformed schemes in order to establish how the costs have moved from the agreed targets, and possibly change benefits structures/ employee contribution rates depending on movements from the targets. This mechanism is known as the 'Employer Cost Cap' (ECC).
3. In the LGPS in England & Wales, these periodic reviews will take place on a triennial basis in line with local funding valuations from 2016 onwards. An LGPS specific approach will also be operated by the Scheme Advisory Board in order that a process exists which more closely aligns with the experience of the LGPS. This mechanism is known as the 'Future Service Cost' (FSC).

Summary of assumptions

4. The summary table in **ANNEX 1** attached to this paper summarises the assumptions detailed in the 3rd November 2014 version of the GAD papers LGPS (E&W): Actuarial valuation as at 31 March 2013: advice on assumptions and report on methodology. These assumptions, shown in column 2, cover both those determined by Treasury Directions and those set as 'best estimates' from scheme experience.
5. The summary table also includes in column 3 the assumptions to be used for the FSC where they differ from those above and in column 4 the recommendations made by PWC for use in a *standardised liability and deficit calculation*.

SAB Future Service Cost assumptions and dry run of FSC

6. **Decision:** The committee are asked to agree the differences in assumptions in column two for use in the FSC process.
7. At the meeting of 7th November the committee agreed to await the GAD valuation report on the employer cost cap before deciding if the Board should commission from GAD a dry run of the Board future service cost process

Cost Management and Contributions

Sub-Committee

based on the 2013 valuation data. The table below reconciles the valuation result with the original basis for the 19.5% FSC target cost:

Reconciliation of proposed employer cost cap with target overall cost % of pensionable pay

Target overall cost met by employers	13.0
Changes due to Directions	
Exclusion of allowance for 50/50 elections	+0.3
Exclusion of transitional protection of the 'Rule of 85'	-0.1
Change in commutation assumption	+0.6
Changes due to assumptions (other than changes above required by the Directions)	+0.2
Changes due to benefits valued	
Inclusion of additional year's revaluation in CARE accounts	+0.4
Allowance for strain from Club transfers	+0.3
Proposed employer cost cap	14.6

8. Two of the cost elements above (50/50 and commutation) have different assumptions in the FSC process which if used would bring the employer cost back to 13.7%. Another (Club transfers) is currently being debated with HMT and may change.
9. **Decision:** Taking into account the above reconciliation the committee are asked to consider if GAD should be asked to dry-run the FSC on 2013 data.

Standardised liability and deficit calculation

10. In commencing its deficit management project, the Shadow Board commissioned PwC to make recommendations as to how fund and employer deficits could be better managed within the LGPS.
11. One of the recommendations made to the Shadow Board by PwC was that every three years in line with local funding valuations, calculations of individual funds' funding levels be commissioned by the SAB on a standardised basis in order to make through-time and cross-fund comparisons.
12. PwC stated:
"After consultation with the four actuarial firms that advise the 89 LGPS Funds, we set out below one possible basis for standardised liability and deficit calculation. GAD preferred not to comment, since it advises DCLG.

Consultation suggests agreement that the major financial assumptions should be prescribed. The most significant of these, other than the discount rate, is earnings growth. Simplicity is important here, to keep costs down. In the 2013 valuations, the typical long term assumption made by LGPS actuaries was that earnings would increase by 1.5% more than CPI. Different assumptions were used elsewhere in the public sector, notably by GAD for the unfunded schemes, where pay restraint was reflected in lower rates in the next few years, higher rates

Cost Management and Contributions

Sub-Committee

later. More accurate, perhaps, but such sophistication would add to the costs of the 89 Funds. So 1.5% is noted below, subject to Scheme Advisory Board review in 2016. There are then two approaches for the main demographic assumptions, as shaded in the table below.

- One approach would have them decided by the Fund Actuary, with a requirement to reflect Fund experience, in consultation with the relevant pension committees. This would allow for the use of local/Fund specific demographic information. It would, for example, typically require LGPS Funds in more affluent areas of the country to reflect greater longevity.
- The other approach would have the Scheme Advisory Board set them centrally before each valuation. This would emphasise that the standardised basis is not the funding basis. It might underestimate longevity in more affluent areas, tending to overstate their relative funding.

Either way, the rate of future mortality improvement should be set centrally. It is intrinsically a matter of hypothesis, and evidence can be interpreted in different ways. Regional and socio-economic differences in mortality improvement are modest at the moment. An annual rate of improvement of 1.5% was commonly used by LGPS actuaries in 2013.

Assumption	Definition/ example approach
Financial	
Net discount rate above price inflation. This is stated as a rate above CPI.	3% pa (equivalent to a gross monetary discount rate of CPI+3.0% pa). CPI would itself be assumed to increase at 2.0% pa
Earnings increases – general	1.5% pa above CPI. This differs from unfunded schemes, for which GAD used 2.75%pa above CPI in respect of period from 2019 and lower rates before that, reflecting short term pay restraint.
Future changes in financial basis	To be adjusted in line with any changes in the SCAPE rate/HMT direction, in accordance with reviews by the Scheme Advisory Board.
Demographic	
Earnings increases - promotional	None
Mortality – base table	Set locally by Actuary based on Fund experience, or centrally by SAB
Mortality – base table adjustment to valuation year	Set locally by Actuary based on Fund experience, or centrally by SAB
Mortality – future projection from valuation year	Long term 1.5% per annum reduction in mortality rates, to be set centrally by the Scheme Advisory Board
Commutation	Set locally by Actuary based on Fund experience, or centrally by SAB
50:50 uptake	Not relevant to deficit calculations: rate only required for any future service calculation
Other demographic assumptions	Set locally by Actuary based on Fund experience, or centrally by SAB

- The assumptions above have been included in ANNEX 1 in order to provide a direct comparison to those to be used in the ECC and FSC processes.
- Decision:** In view of the above the sub-committee are asked to determine a recommendation to the Board that:

Cost Management and Contributions

Sub-Committee

- Either the assumptions to be set centrally should be as recommended by PWC or the same as set for the FSC process (note CPI and discount rate assumptions are the same in both).
- The other assumptions are either set centrally to be the same as those used for the FSC or set locally (i.e. to be the same as those used for the fund valuation).

15. In determining the setting of the other assumptions the committee should also consider who will be performing the calculation and the prospective costs. For example if it is determined that assumptions should be set locally and calculated by the fund actuaries then a recommendation to DCLG that regulations will need to require such calculations may be necessary. In that case the cost will fall on each fund directly.

2 February 2015

Cost Management and Contributions Sub-Committee

Annex 1 - Methodology and assumptions

	Scheme valuation - Employer Cost Cap (ECC)	Scheme Advisory Board Future Service Cost (FSC) process	Standard Funding Calculation from PWC report
Methodology	Projected unit methodology with benefits attributed to periods of service in accordance with the requirements of International Accounting Standard 19: Employee Benefits.	As ECC	
Total membership to March 2016 and March 2019 Profile of membership to March 2016 and March 2019	Constant with 2013 ¹ Profile to remain stable by salary roll at each age	At the meeting of 7 th November 2014 the committee agreed to the assumption as used in the ECC process	
Data	GAD Model Fund	GAD Model Fund	Fund specific
High level assumptions - Assumptions for ECC set by The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2013 sections 16 to 25 - figures in bold are those used for the GAD 2013 scheme valuation published in December 2014			
Relevant rate of increase	PI Act where set or (i) 2.9% on 7th April 2014; (ii) 2.3% on 6th April 2015; (iii) 2.1% on 11th April 2016; and (iv) 2% on the first Monday in each tax year subsequently; 2% pa used for ECC	As ECC	CPI assumed to increase at 2.0% pa

¹ GAD LGPS Valuation 2013 Report on Methodology

Cost Management and Contributions Sub-Committee

Public service earnings growth	(a) 2.2% over the year to 31st March 2014; (b) 2.5% over the year to 31st March 2015; (c) 3% over the year to 31st March 2016; (d) 3% over the year to 31st March 2017; (e) 3% over the year to 31st March 2018; and (f) 4.75% each year from 1st April 2018. 4.75% pa used for ECC	As ECC	1.5% pa above CPI. This differs from unfunded schemes, for which GAD used 2.75%pa above CPI in respect of period from 2019 and lower rates before that, reflecting short term pay restraint.
Discount Rate	SCAPE discount rate over each year ending on the 31 March (the assumed rate of increases awarded in line with the Pension (Increase) Act 1971 in the April immediately following each year, compounded with 3%;) - 5.06% pa nominal used for ECC	As ECC	3% pa (equivalent to a gross monetary discount rate of CPI+3.0% pa).
post-retirement mortality rates	Mortality rates published by the Office for National Statistics as part of the most recent principal population projections for the United Kingdom	FSC process will check ONS against LGPS index and scheme experience	Long term 1.5% per annum reduction in mortality rates, to be set centrally by the Scheme Advisory Board
Changes to SPA	When the Secretary of State has made a public statement proposing a change to the state pension age, the proposed change to state pension age has already been made	As ECC	
50/50	No members of a scheme providing benefits to local government workers in England and Wales ever have, or ever will, make an election under regulation 10 of the Local Government Pension Scheme Regulations 2013	As per reform process 10% of those earning less than £x	Not relevant to deficit calculations: rate only required for any future service calculation

Cost Management and Contributions Sub-Committee

Scheme level assumptions - Assumptions for ECC set under The Public Service Pensions (Valuations and Employer Cost Cap) Directions 2013 section 26 as 'the responsible authority's best estimates' and set out in GAD LGPS Valuation 2013 advice on assumptions

<p>Pensioner baseline mortality</p> <p>Normal health Dependants Ill Health (current) Ill health (future)</p>	<p>Set as standard SAPS tables adjusted by the percentages shown below</p> <p>M:+0.1% +0.1% 99% x S1NMA; F: 93% x S1NFA M: 120% x S1NMA; F: 101% x S1DFA M: 104% x S1IMA; F: 106% x S1IFA M: 104% x S1IMA; F: 106% x S1IFA</p>	<p>As ECC</p>	<p>Set locally by Actuary based on Fund experience, or centrally by SAB</p>
<p>Age retirement</p> <p>All members joining on or after 1 Oct 2006, and all members not entitled to unreduced benefits before age 65 under the 'Rule of 85'</p>	<p>0.3% (M) or 0.2% (F) retire each year from 55 up to 5 years before NPA, then 9% (M and F) a year prior to NPA: 100% at NPA</p>	<p>As ECC</p>	<p>Set locally by Actuary based on Fund experience, or centrally by SAB</p>
<p>Members entitled to unreduced benefits at age 605 under the 'Rule of 85</p>	<p>Members with NPA or 65 or 66 (born before 6 Apr 1960): typically 31% (M) or 30% (F) retire at 60, with 2% (M and F) a year prior to CRA: 17% (M) or 23% (F) a year between CRA and NPA; 100% at NPA. Members with higher NPA (born after 6 Apr 1960): Rates intermediate between the above and those applying to members joining on or after 1 Oct 2006</p>	<p>As ECC</p>	<p>Set locally by Actuary based on Fund experience, or centrally by SAB</p>
<p>Members entitled to unreduced benefits at ages between 60 and 65 under the 'Rule of 85'</p>	<p>Consistent with rates above, but based around unreduced benefits being payable at 62 rather than 60</p>	<p>As ECC</p>	<p>Set locally by Actuary based on Fund experience, or centrally by SAB</p>
<p>Ill-health retirement -</p>		<p>As ECC</p>	<p>Set locally by Actuary based on</p>

Cost Management and Contributions Sub-Committee

Incidence	Increasing by age: male rates are around 0.01% at age 30, 0.1% at age 45, 0.8% at age 60; female rates lower		Fund experience, or centrally by SAB
Tier 1 / 2 / 3 split	77% / 11% / 12% (male and female)		
Withdrawal	Reducing with age: female rates are around 7% at age 30, 4% at age 45, 2% at age 60, net of 20% re-entry within 5 years; male rates lower; no duration-based assumptions for males or females	As ECC	Set locally by Actuary based on Fund experience, or centrally by SAB
Death before retirement	Increasing by age: male rates are around 0.03% at age 30, 0.09% at age 45, 0.32% at age 60; female rates lower	As ECC	Set locally by Actuary based on Fund experience, or centrally by SAB
Promotional salary scale	Steeper at younger ages: male rates are around 1.1% at age 30, 0.5% at age 45, 0.0% at age 60; female rates lower	As ECC	None
Commutation Pre-2008 service 2008-14 service 2014 Scheme service	10% of pension commuted 15% of pension commuted* 15% of pension commuted* *Specified in HMT Directions	At the meeting of 3 rd July 2014 the committee agreed that the FSC process should continue using the assumption that members commute 65% of the maximum allowable amount of their pension in to lump sum - (equivalent to 23.2% of pension commuted)	Set locally by Actuary based on Fund experience, or centrally by SAB
Family statistics Proportion married/partnered	80% (M), 75% (F) at ages up to 70, with consistent assumptions for existing pensioners and other ages	As ECC	Set locally by Actuary based on Fund experience, or centrally by SAB

Cost Management and Contributions Sub-Committee

Age difference	Male member 3 years older than partner Female member 2 years younger than partner		
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