

## **Local Government Pension Scheme - Policy Review Group**

### **Cost sharing**

1 This paper has been prepared by the Government Actuary's Department at the request of the Department for Communities and Local Government. The purpose of the paper is to inform the discussions of the Policy Review Group of the Local Government Pension Scheme and covers some issues arising from the proposal to introduce into the scheme a mechanism for sharing costs between members and employers. As a discussion paper it does not set out any formal recommendations.

2 The paper is set out in three sections, covering:

- The types of cost risk within the scheme that might be shared (paragraphs 5-10)
- The proportion of risks to be shared (paragraphs 11-16)
- The mechanics of calculating a cost share (paragraphs 17-29)

3 By way of background it might also be helpful to set out some of the main objectives of a cost share arrangement, namely:

- Sharing cost risks between employers and members and promoting a partnership of joint action to control those risks.
- Greater cost stability for employers, and the potential for reductions in both employer and member contributions.
- Raising awareness of the value of pension benefits amongst the membership
- Promoting a culture of shared ownership of the scheme between employers and members.

4 This paper does not cover administrative or possible legal issues which may arise from cost sharing.

### **Types of cost risk**

5 The costs arising in a pension scheme, as determined at successive actuarial valuations, might be viewed as a function of factors falling into eight main categories:

- 1) Valuation membership data (reflecting as it does various elements of actual past experience such as pay growth and the number of ill-health early retirements).

- 2) Demographic assumptions, where these are typically set having regard to available data on past experience including members' past behaviour, and projected where appropriate.
- 3) Financial assumptions such the gross and net discount rates.
- 4) Price inflation as it impacts on members' pensions, preserved pensions and pay growth.
- 5) The benefit structure.
- 6) Options exercisable by the members.
- 7) The actuarial valuation methodology used to calculate costs.
- 8) The investment return earned on the scheme's assets.

6 There are also different principles which might be applied in determining whether the impact of a particular category of factors falls within or outside the cost sharing arrangement (falling outside means that members do not share in that particular risk). These principles might for example include the ability of members / employers to influence the particular factor and/or whether the factor actually makes a difference to the total amount of benefit payable to members.

7 Table 1 below combines the eight factors influencing cost with possible principles for determining whether something should or should not fall within the cost share envelope. This table is designed to promote a discussion and it is accepted that some of the items in the table could be argued differently.

**Table 1 – cost pressures**

<b>Cost - risk Category</b>	<b>Affects the amount of members' benefits payable?</b>	<b>Employer control over the risk?</b>	<b>Do member actions influence the risk?</b>
Valuation data	Yes	Yes to some elements, no to others.	Yes to some elements, no to others.
Demographic assumptions	Yes to the extent that they represent an <i>expectation</i> of what might be paid out.	Yes to some elements, no to others.	Yes to some elements, no to others.
Financial assumptions	No	No, except to the extent that actuaries might discuss their assumptions with the employers.	No
Price inflation	Yes	No	No
Benefit structure	Yes	Yes, except if imposed by law	No, other than through negotiation and discussions surrounding the cost share
Options	Yes	No, although partly controlled through pricing	Yes
Actuarial methodology	No	No	No
Investment return	No (under current arrangements)	Partly	No (at present)

8 In considering the above analysis it should be borne in mind that the scheme contains a certain total amount of cost risk. Sharing the risks between employers and members is therefore a zero-sum game – put crudely, what one party gains the other party loses, ie if the cost risks borne by one stakeholder reduce, then the risks borne by other stakeholders increase by the same amount. Similarly, any cost risks which do not fall within the cost share arrangement are by definition borne 100% by the employers. (In practice it might not be a zero-sum game at all. For example if one stakeholder is able to exercise an option with another stakeholder paying for it, then the overall cost risk in the scheme could increase. Alternatively if, as a result of cost sharing, all stakeholders work together to control cost risks in the scheme then overall cost risks in the scheme could decrease.)

9 As a starting point therefore, where the amount of members' benefits are affected (ie "Yes" in the first column above) and where employers and members have a similar level of influence over the factor (ie Columns two and three are either both "No" or both "Yes", or in any event similar), then these would seem to be the elements where cost share would be most justified.

10 Alternatively if risks are to be shared where notwithstanding that there is difference between the output in columns two or three, then one of the stakeholders might reasonably expect to be granted a greater degree of influence than at present. An example might be investment return where if members were expected to bear a share of the investment risks, they might validly expect a greater level of influence over investment policy than they currently have.

### **The proportion of risks to be shared**

11 The main questions under this heading are:

- a) In what proportion should the cost of any gains/losses be shared between employers and members?
- b) Should the proportion in (a) be the same for all risk categories?
- c) Should employer costs be capped?
- d) Should cost sharing apply below any employer cap?
- e) Should any employer cap apply at a local or global level?

12 There is no right answer to the above questions, although to some extent the appropriate result will depend on the relative weights given to the objectives in paragraph 3.

13 In theory it might be possible to construct a model where each category of risk carried a different cost share proportion depending upon the relative strength of influence and control in columns two and three in Table 1. Such a model would be complex and might in practice be very difficult to operate and the proportions would also need to be subject to periodic rebalancing. For simplicity, therefore, a single “average” proportion might be preferable, although this need not be 50%/50%.

14 For example if there are elements which are agreed to fall outside the cost share arrangements, then as mentioned in paragraph 8 these are effectively met 100% by the employers. It might then be argued that if employers are bearing 100% of some risks, the members should bear a higher proportion of the shared risks – perhaps justifying a cost share proportion of 75% or 2/3rds.

15 An employer cap might be viewed as a form of cost share with members taking 100% of the risk above the cap and (depending on the answer to 11(d) above) employers taking 100% of the risk below the cap. Again, such an arrangement might only apply in relation to certain risk categories so, for example, investment gains / losses might still be excluded under a capping arrangement. Alternatively, and as mentioned in paragraph 10, if members were to be given a say in investment policy, they might then reasonably be expected to bear a proportion of the investment risks - in which case it would be included within the capping formula,

16 Finally under this heading, if it is decided to adopt an employer cap it might be presentationally attractive to adopt it at the local level, but it is difficult to envisage how this would work in practice, particularly if there are elements of cost risk which are to be excluded from the cost share calculations. In this case, the excluded elements might, when added back in to the employer rate, push it back above the cap, thus losing some of the presentational advantages. If the cap were to be calculated at a scheme-wide level it would probably need to be based on a notional fund. Further discussion on the need for a notional fund and the mechanics of cost share is set out in the next section.

### **Mechanics of the cost share**

17 There are perhaps four alternative approaches, reflecting different levels of central and local involvement in the cost share process.

#### *Alternative 1 - Model scheme*

18 This approach would be a similar model to that used for the benchmark costings in the ConDoc. However the ConDoc costings were for future service only – ie dealing with the costs of benefits that members will accrue in the future. A cost share model would need to include the effect of scheme experience on members’ accrued pensions (“past service effects”) as well as on future pension accrual.

19 To allow for these “past service effects” the model scheme approach would need to include a “notional fund”. At a chosen date (perhaps 31 March 2009) the notional fund is established as being equal to the scheme’s accrued liabilities at that date. Thereafter, the notional fund is credited with contribution income and investment return and reduced by benefit payments. Then, at each successive valuation date, in addition to the calculation of a model standard contribution rate (SCR), the value of accrued liabilities would be compared to the notional fund and a notional surplus/deficit established to be spread forward as deduction/addition to the SCR. Note that setting the notional fund to accrued scheme liabilities at a certain date means that no element of accrued fund deficit or surplus prior to the date would be included within the cost share model.

20 Depending on the availability of data, it is likely that the notional fund will need to be established based upon sample data. There will also need to be a technical discussion about the assumptions to be used to establish the notional fund as well as how, in practice, the fund would be maintained from year to year.

21 As with the ConDoc costings, the calculations for the model scheme at each valuation would, depending on the timely availability of a full, fully validated and fully consistent data set, probably need to be based on sample data.

22 Looking towards an implementation date of April 2011, the process and timing might then work as follows (April 2011 being the date when contributions actually start to reflect the cost share arrangement):

- a) Cost share methodology agreed and finalised by 31 March 2009.
- b) Prior to 31 March 2010 a data specification is sent by GAD to the local fund actuaries setting the information that they will require about the actuarial assumptions being used for the 2010 round of valuations.
- c) 31 March 2010. Valuation date.
- d) Valuation membership data supplied to the fund actuaries within 3 months after the valuation date (30 June 2010).
- e) A pre-agreed sample of membership data is provided to GAD by 30 July 2010
- f) 31 August 2010. The actuaries have analysed the membership data, decided on the assumptions they propose to adopt locally and submitted these to GAD, in the format specified in (b) above. The actuaries then proceed to complete their valuations to await stage (j) below.
- g) 30 September 2010. GAD analyses and the local assumptions and puts forward to the Policy Review Group a proposal on the model assumptions to be adopted.

- h) By 30 November 2010. The Policy Review Group considers, and gives its view on, the assumptions to be used. GAD is then instructed to run the assumptions through the model.
- i) By mid-January 2011. The agreed assumptions have been run through the model scheme and the results compiled. The output includes a model recommended employer rate, and the resulting member rate under the agreed cost share mechanism.
- j) By end February 2011. The Review Group discuss the cost share result and gives its view. The resulting member rate is fed back to the fund actuaries so that they can advise locally about what the member rate means for the local employer rate, for implementation by April 2011. Alternatively if it is decided to adjust members' benefits rather than (or in addition to) adjusting contributions, then this too is fed back locally,

23 In practice the above timing looks very optimistic and it is quite possible that the process will be rather more intricate than that outlined. Perhaps the most optimistic timings have been put on stages (d), (h), (i) and (j) (particularly if there is a need to discuss possible changes in benefits) but the other stages also quite tight too. In other circumstances, stages (b) - (j) might reasonably be expected to take perhaps 18-24 months, which in turn would imply an implementation date of 2012 not 2011. This delay would, in turn, probably need a formal amendment to the regulations.

24 Alternatively, the model data and assumption setting process might be set back a year to work from 2009 data rather than 2010 data. The local valuations themselves would still be still carried out using 2010 data but an additional data extract would be required at 31 March 2009 to inform the sample data and assumptions to be used for the model scheme costings. The process would clearly involve some duplication and it would introduce a small lag into the cost-share process whereby items of experience which, say, came through in 2009/2010 and which should then theoretically impact on the costs share from 2011 will not then influence the cost share until the next valuation in 2014. Nevertheless bringing forward the model by one year would stand a better chance of meeting the 2011 deadline and would give the Review Group considerably more opportunity to discuss the assumptions and results.

*Alternative 2 – centrally set assumptions and centrally compiled results*

25 The process could be made a little more realistic by dispensing with the notional fund and model scheme. This could be done by following steps (a) - (h) above which lead to an agreed set of assumptions. These assumptions would then be run through the local valuations (rather than a central GAD model) to get results which are then collated centrally and averaged to arrive at an average result which then informs the cost share. The main disadvantages of this approach are the extended timing and work needed in the local valuation process, the inflexibility of not easily being able to run any subsequent changes to the assumptions or benefits through a central model (since the impact would need to be assessed at the local level and the compiled centrally) and the inability to carry out any scenario testing in the model scheme.

26 There is also a loss of consistency. Even if the assumptions are prescribed in some detail there could still be material differences emerging in the methodologies adopted by local actuaries, particularly when it comes to the technicalities of including or excluding certain elements of experience from their calculations.

*Alternative 3 – no central assumption setting process*

27 Under this alternative, the assumptions are decided locally and valuations are carried out at the local level. The results are then collated centrally and the cost share applied to the aggregate results. This suffers from similar drawbacks to Alternative 2 (loss on consistency, flexibility etc), although timing should be less of an issue as there is no need for any Review Group discussion of the assumptions. Counter to this, however, is the loss of involvement of the Review Group in connection with the assumptions being used.

*Alternative 4 – local setting of rates*

28 Valuations would be carried out locally with the agreed cost share being applied locally. Putting aside any technical difficulties the actuaries may encounter, the timing should broadly match the current valuation timing. The clear downside would be the proliferation of different member contribution rates across the country and, possibly, different benefit structures emerging if it is decided locally that amending benefits is preferable to amending contributions. It is also difficult to see what role the Review Group or Minister would play in the process, a process which affects members' contributions and benefits, and scheme costs.

29 Finally it needs to be appreciated that cost share mechanisms are complex, and important technical issues are likely to arise. For example, it might be agreed that the impact of changes to the discount rate assumption should be excluded from the cost share arrangement, but that the impact of increasing pensioner longevity should fall within the cost share arrangement. However, the impact of increasing longevity itself depends upon the discount rate used in the calculation – the lower the discount rate the greater the financial impact of increasing longevity and the greater its impact on the cost share. Therefore the order in which the assessment of different factors is made can have a material impact on the cost share (and again there is no right answer).

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