

Local Government Pension Scheme – Policy Review Group Cost sharing: Update

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 set out a proposal to form a basis for discussion by the Policy Review Group of the Local Government Pension Scheme, in respect of a mechanism for sharing costs between members and employers. This paper covers the principles behind the proposals but does not attempt to go into the details of the proposal, as these can be covered in later technical papers. As a discussion paper it does not set out any formal recommendations.

This paper builds upon, and supersedes, the corresponding paper dated 11 September 2007, presented to the Policy Review Group on 18 September 2007.

This paper is set out in four sections covering:

- Establishment and mechanism for cost sharing
- Experience items which might count towards cost sharing
- The proportion of risks to be shared
- Timetable for implementation

1 Establishment and mechanism for cost sharing

- 1.1 A notional fund would be established as part of a model scheme and would be centrally maintained. The purpose of this model scheme would be to set a national member contribution rate which will be paid by all active members. The members' contribution rate (or any changes to members' benefits) will be fed into the valuation process for each local fund, and employers' contribution rates will be determined locally.
- 1.2 The membership of the initial fund will be based on full membership data provided by each fund. This membership could be grouped by age/gender if it made the collection of data easier. Demographic features may vary by region and fund type and a full membership dataset will fully reflect these variations.

Initial notional fund

- 1.3 It is conceivable that cost sharing could simply involve the sharing of the scheme's future service cost risks only. If no past service at all is included in the cost sharing model there would be no need for a notional fund. However relatively little cost risk would then be shared with the members; indeed only changes in cost due to changes in the assumptions would be shared – ie there would be no direct sharing of the cost impact of actual scheme experience unless the assumptions were also changed.

- 1.4 Accepting therefore that cost sharing should include some element of past service (and a notional fund), there are alternative approaches. First, sharing might involve a share of the cost risks arising only from service after the implementation date. Alternatively it might include a share of the costs risks arising from future service and all, or part, of service accrued pre-implementation. For example, whilst including cost risks associated with active members' accrued service, it would be possible exclude the cost risks associated with pensioner and/or deferred pensioner members at the implementation date.
- 1.5 The more elements of past service which are included within the cost share envelope, the greater fluctuation there could be in member contribution rates or benefits (although this effect would be somewhat dampened by the use of a relatively long period for spreading surpluses and deficits). Conversely, the lower the level of past service included within the cost envelope the greater the cost risk borne by employers (and ultimately taxpayers), and the ongoing affordability and sustainability of the scheme could be called into question.
- 1.6 Therefore if it is desirable to maximise the ongoing affordability and sustainability of the scheme, as much cost risk as possible should be shared between employers and members. This would be achieved by the sharing of all past service experience together with the impact of changes to the assumptions for determining future service costs.
- 1.7 However, it is also assumed that surpluses or deficits which exist in the local funds at the commencement date of the model scheme would be excluded from the notional fund and would not form part of cost sharing envelope - ie the initial funding position of the local funds will be ignored.
- 1.8 Overall therefore the proposal is that the notional fund should, initially, be set equal to the total accrued liabilities of the scheme membership at the commencement date. This would mean that sources of surplus/deficiency already recognised at the implementation date would then continue to be the responsibility of employers. New sources of surplus/deficiency would fall within the cost share envelope, as would any adjustments to the estimates of the original sources already recognised. This would be consistent with the approach adopted / being considered by some other large public sector schemes.

Proposal: A notional fund is set up equal to the total value of accrued scheme liabilities at the implementation date.

Actuarial assumptions for the initial cost share calculations

- 1.9 The actuarial assumptions used to calculate the initial notional fund and initial ongoing future service cost could be derived in one of two ways. First, the notional fund basis could be constructed as the average of the local assumptions, weighted by pensionable payroll to recognise the size of the membership to which it relates. The local fund basis should be a 'best estimate' and any margins contained within the local assumptions would need to be identified by the local fund actuary and removed.
- 1.10 Alternatively, and if local fund actuaries were unable to provide details of a best estimate basis (either directly, or indirectly by supplying the assumptions used together with an indication of the extent of margins for prudence) GAD could be supplied with the relevant local experience data to enable it to analyse the scheme-wide experience centrally and derive appropriate best estimate assumptions.

- 1.11 The advantage of using a best estimate approach is that the cost of any prudence within local fund valuation bases will be transferred to the employers.

Proposal: Best estimate assumptions are used to value the initial notional fund. If it is not possible for local actuaries to supply this information, experience data should be provided centrally to enable a scheme-wide analysis to be undertaken.

Actuarial assumptions for subsequent cost share calculations

- 1.12 It would be appropriate for the actuarial assumptions underlying the calculation of the notional fund to be reviewed triennially and be informed by local valuation bases, taking into account the experience observed over the inter-valuation period.
- 1.13 The assumptions to carry out subsequent notional fund calculations should be best estimates. The advantage of using best estimates is set out in 1.11 above.
- 1.14 The best estimate assumptions could then be smoothed so that changes in the demographic experience between valuations would not necessarily be introduced into the assumptions in one fell swoop. Rather, the assumptions would be set in a way that trended towards the experience – changing the assumptions more gradually in response to actual scheme experience. This smoothed best estimate approach should serve to reduce the volatility of members’ contributions/benefits as well as dampen inter-generational cross subsidies.
- 1.15 Using smoothed best estimates in these subsequent calculations also has the advantage of reducing the “double cost impact” of changes to the assumptions. (“Double cost impact” here means that if for example ill health retirement rates turn out to be higher than assumed, the funding position will worsen because there are now more ill health pensioners than expected, and will worsen further still if the assumptions for future ill-health retirement rates are then changed in line with the experience.)
- 1.16 A criticism of the smoothed best estimate approach is that the amount by which assumptions are changed from valuation to valuation can be subjective. An alternative approach would be to fix the actuarial assumptions at the outset of the notional fund. In this case, there would be no double cost impact because the assumptions for the future would not change. Rather it would be necessary to wait for actual experience to come through before there was any impact on costs. This approach does not, however, follow normal actuarial practice and would introduce a greater risk of inter-generational cross subsidy because the effects of experience (such as improving longevity) being different to that expected might take a very long time to emerge (and therefore the cost or saving from the experience, which could have been anticipated earlier, might instead be picked up by future generations of scheme members).
- 1.17 The collection of data to arrive at the actuarial assumptions to be used to undertake the cost share calculations would be handled in the same way as described in 1.9 or 1.10 above.
- 1.18 The notional fund will be maintained centrally and compared to the value of scheme liabilities assessed on the actuarial assumptions and membership dataset prevailing at the valuation date. The difference between the notional fund and the accrued liabilities represents the notional surplus/deficit which, when spread over an agreed amortisation period, is deducted from/added to the standard cost of providing scheme benefits as calculated using the same assumptions and dataset.

1.19 The actuarial methodology for calculating the standard cost of scheme benefits is a matter which will need further consideration.

Proposal: Smoothed best estimate assumptions are used to undertake subsequent notional fund calculations. If it is not possible for local actuaries to supply this information, experience data should be provided centrally to enable a scheme-wide analysis to be undertaken.

2 Experience items to be taken into account

- 2.1 A model scheme would examine only the impact of options falling into cost sharing and not those that occur outside. There are a number of elements of the fund experience which may be taken into account for cost sharing and their inclusion may depend upon influence, contribution rate stability and materiality. A key consideration for the PRG might be member contribution rate stability and if so, a suitable strategy for achieving this is a key factor.
- 2.2 Increased stability for the member can be achieved by excluding those experience items which are likely to have a large and unpredictable impact on contribution rates eg investment returns. Stability of contributions can also be increased by having regard to long term rather than short term fluctuations in experience and by adopting a long period over which any notional fund surplus or deficit is spread. Typically, private sector pension schemes adopt an amortisation period of around 10 years as this is the longest period normally permitted by the Pensions Regular. However, the LGPS is exempt from this requirement and amortisation periods of around 20 years are typical in local LGPS funds. A similar amortization period could be adopted in the notional fund.
- 2.3 It is proposed that the elements of experience taken into account for cost sharing are as follows;

Factor	Cost/benefit risk to be borne by	Rationale
Longevity improvements	Cost Shared	Improving longevity will increase the value of the pension scheme to members and the increased cost should be shared. However, as members are receiving an additional benefit and the employers do not have influence over longevity improvements, it could be argued that the cost risk should be borne solely by the members.
Other Demographics	Cost shared	As neither party has sole influence on the outcome of demographic factors, the risk of a change in costs due to a change in demographics should be shared.
Financial assumptions	Employer	Changes in financial assumptions do not generally impact upon members' benefits. In the case of price inflation, it might be argued either way depending on whether benefits are viewed in real or nominal terms.
Pay increases	Cost Shared	Members do not have a significant direct influence over the level of pay increases. However, greater than expect pay increases will increase the value of the pension benefits for active members and the increased costs should be shared. As employers have a direct influence on the level of pay increases, it could be argued that the risks

		of increased costs should reside solely with the employer.
Options	Cost Shared	Scheme options are not a compulsory feature of the scheme and are entirely at the members' discretion. There is also a risk of generational cross subsidy for the members in that any costs which arise from the current options would emerge as a deficit at a later date and be picked up by the next generation of members. Members may not have influence over the pricing of options. Taking into account the balance of these factors and the influence of the parties, it would seem reasonable to share the cost risks between members and employers.
Benefit structure	Cost shared	Changes to the benefit structure represent a change in the amount of benefit paid to members and thus a change in their overall remuneration package. However the employer has influence over the changes made and thus the cost risks should be shared.
Benefit Structure as a result of overriding legislation	To be discussed on a case by case basis when the need arises.	Changes to the benefit structure imposed by overriding legislation are outside the control of both the employers and the members. Changes may affect either all or a minority of members. The cost impact should be considered on a case by case basis, as and when it arises.
Investment return	Employer	<p>Scheme members have no influence over investment returns or investment policy. Including investment returns within cost sharing could result in increased contribution rate instability for members in terms of both past and future service due to the large and unpredictable nature of the experience. If member contribution stability is a priority for the PRG, then it would be sensible for investment risks to be outside of cost share envelope.</p> <p>However, changing investment returns can increase/reduce the cost of providing the benefits and it could be argued that these costs should be shared.</p>
Actuarial methodology	Employer	Scheme members have no influence over actuarial methodology. The ultimate cost and value to the members of the benefits paid out depends on the actual membership experience and not on the actuarial methodology.

Proposal: See middle column above

3 The proportion of risks to be shared

- 3.1 The proportion by which the risks are shared between the employer and employee has not been discussed by the PRG but for the purposes of putting forward a proposal for discussion, a figure of 50:50 is suggested as this is the split adopted by the other public sector schemes eg NHSPS and TPS. The share need not be 50:50 and a higher proportion could be attributed to members to reflect the employer taking on 100% of the risks which fall outside the cost sharing arrangements eg investment returns. Conversely, a lower proportion might be justified if a cap on employer contributions were introduced.
- 3.2 It would be possible to construct a model where each category of risk carries a different cost share proportion depending upon the relative strength of influence. However, such a model would be complex, possibly difficult to operate and also require periodic rebalancing. Weighting is reflected to some extent by excluding some components from cost sharing eg investment returns are excluded from cost sharing and the investment risk is borne 100% by the employers.

Proposal: Cost risks which are agreed to be shared should be shared 50%/50% (subject to any cap – see below)

Employer Contribution rate cap

- 3.3 Employer contributions could be paid up to a limit known as the employers' contribution rate cap. This would ensure consistency of approach with other public sector schemes and protect the long-term affordability (and therefore viability) of the scheme. It would also increase contribution rate stability for the employers.
- 3.4 It is proposed that the cap should be set for the model scheme but not applied locally. However, the cap need not be set at a national level, it could for example, be set by local fund or by employer. This though, could quickly lead to the disintegration of the national scheme. Problems would also be encountered around issues such as volume of data and statistical significance. Additionally, the time expended in carrying out separate analysis at a local level would be prohibitive.
- 3.5 A cap of 14% has been set in the Teachers' pension scheme and is proposed for the NHS scheme, and a cap of 20% has been proposed for PCSPS. For the purpose of putting forward a proposal for discussion, it is suggested that a notional fund cap of 14% could be adopted for the LGPS. The cost of providing benefits under the LGPS (ignoring surplus or deficits) is historically lower than under other public sector schemes and this might justify a lower cap for the LGPS. However, the lower the rate at which the cap is set, the greater the risk that elements of cost sharing which are wholly borne by the employer will be pushed back onto the member.

Proposal: There should be a cap on employer costs, the level of which needs further discussion but might be 14% of pensionable pay.

4 Timetable

- 4.1 The financial impact of cost sharing will be recognised in level of members' contributions with effect from April 2011 as prescribed by regulations, with a notional fund being established as at 31 March 2010 to coincide with the triennial LGPS valuation. At the last meeting on 12 July 2007, the PRG considered this timetable to be too tight and requested that a two year time horizon be considered instead. This can be achieved by either extending the deadline for implementation to 2012 or by bringing the modelling exercise forward to 2009.
- 4.2 Retaining an implementation date of April 2011 and establishing the notional fund in 2009 would necessitate some double running of calculations for local fund actuaries, first to establish a validated dataset and second to determine an actuarial basis. This process would need to be repeated a year later at the 2010 valuation of the local funds, although the analysis of experience conducted in 2009 could be used to inform the 2010 local fund actuarial basis. Establishing the notional fund as at 31 March 2009 would also introduce a time lag element as cost sharing would not include an experience element relating to the period 2009-2010.
- 4.3 Deferring the implementation date to 2012 would remove the need to double run calculations, but would mean that the implementation of cost share was not on a consistent timetable to the implementation of the results of the 2010 cycle of actuarial valuations.
- 4.4 In the table in the Appendix, two timetables are set out. The first timetable has the notional fund established as at 31 March 2009 and an implementation date of April 2011, and the second with the notional fund established as at 31 March 2010 and an implementation date of April 2012.

Proposal: A two year time horizon should be allowed for completion of the cost share process. The process would need to start in March 2009 if the results of the first cost share valuation are to be implemented on a consistent timetable to the 2010 cycle of actuarial valuations.

Timetable for Cost Sharing

		Implementation 2011	April 2012
1	Cost share methodology agreed and finalised by	End of 2008	31 March 2009
2	Prior to the notional fund start date a data specification is sent by GAD to the local fund actuaries setting the information that they will require about the actuarial assumptions derived from the 2009 experience analysis or being used for the 2010 round of valuations.	Prior to 31 March 2009	Prior to 31 March 2010
3	Valuation membership data supplied to the fund actuaries within 4 months after the establishment of the notional fund.	31 July 2009	31 July 2010
4	If GAD is to determine a central basis using experience data, experience and membership data is provided to GAD in the agreed format.	By 31 August 2009.	By 31 August 2010.
5	The actuaries have analysed the membership data, decided on the assumptions they propose to adopt locally and submitted their best estimates to GAD. This stage is obsolete if GAD is to determine a central basis using experience data.	30 November 2009..	30 November 2010.
6	GAD analyses the local assumptions (and experience data) and puts forward to the Policy Review Group a proposal on the model assumptions to be adopted.	28 February 2010.	28 February 2011.
7	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.	By 31 May 2010	By 31 May 2010
8	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.	By 30 September 2010	By 30 September 2011
9	The Review Group discusses 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 rate means for the local employer rate. Alternatively if it is decided to adjust members' benefits, then this too is fed back locally.	By 30 November 2011	By 30 November 2012
10	Cost sharing implementation	April 2011	April 2012