Devon County Council Pension Fund

Devon County Council
Delt Services

Pensions information as at 1 October 2014

2 November 2016

Contents

Introduction

Purpose and scope of the report

We have been asked by Devon County Council, the Administering Authority for the Devon County Council Pension Fund (the Fund), to provide pensions information in respect of eligible employees who transferred their employment to Delt Services (the Employer) from other employers in the Fund at 1 October 2014.

We previously provided a report, dated 12 June 2013, in respect of this transfer. This report set out the appropriate contribution rates to be paid by the Employer based on a fully funded transfer of liabilities where the Employer would be responsible for future accrual of benefits for the remainder of the contract.

The pension arrangements for the eligible employees transferring their employment from the Letting Authority to the new employer are covered by the Transfer of Employment (Pension Protection) Regulations 2005. The Fund participates within the Local Government Pension Scheme (the LGPS), a defined benefit statutory scheme administered in accordance with the Local Government Pension Scheme Regulations 2013 (the Regulations).

The purpose of this report is to set out the pensions related issues to be considered by the new employer assuming it participates in the LGPS as an admission body in the Fund under a pass-through admission agreement.

This report provides the possible range of recommended contribution rates based on modelling 10,000 economic scenarios along with the likelihood of such contribution rates.

This report is provided for use by the Administering Authority and the Letting Authority (if different). It may be shared with the new employer or other interested parties but it does not constitute advice to them.

This advice complies with all Generic Technical Actuarial Standards and the Pensions TAS issued by the Financial Reporting Council. We have taken account of current LGPS Regulations and any known changes to the LGPS regulations as at the date of this report.

Data

We have been provided with membership data by the Administering Authority which is summarised in Appendix 1 and our calculations are based on this information.

The data used for this report is not consistent with the data used for the first version of the report dated 12 June 2013 but has been update to reflect the actual membership at the date of transfer.

Demographic/statistical assumptions

For the purposes of this report it is appropriate to use the method and assumptions consistent with the actuarial valuation as at 31 March 2013, updated where necessary to reflect market conditions. A summary of the financial assumptions used for our calculations and brief details of the mortality assumptions adopted are given in Appendix 1.

Full details of the demographic and other assumptions adopted as well as details of the derivation of the financial assumptions used can be found in the relevant actuarial valuation report.

The transfer date is assumed to be 1 October 2014 and we have carried out our calculations as at 1 October 2014.

The assumptions used for the economic model run for the 10,000 scenarios to calculate the pass-through rates are summarised in Appendix 2. This includes the average returns over the next 20 years for each asset class, the standard deviation of each asset class and the assumed correlations.

The admission body route (general)

In this section we consider the issues should the new employer become an admission body within the Fund under Part 3 of Schedule 2 of the Regulations whether this is part of a full risk transfer or as a pass-through agreement.

Admission to the Fund will be effected through an admission agreement. This is a legal document which will establish the conditions of admission and needs to be agreed by:

- the Administering Authority;
- the Letting Authority (if different); and
- the new employer.

The admission agreement will be in respect of the eligible employees and can either be open to new staff employed on the contract (an open agreement), or closed so that only the original transferring membership joins the new employer's section of the Fund (a closed agreement).

The new employer must comply with the various administrative requirements and make any payments as required under the Regulations. Examples include:

- member and employer contributions;
- payments to be made upon exercising employer discretions under the Regulations; and
- payments required upon termination of the contract.

Future benefit changes

Changes in the Regulations may alter the benefits provided by the Fund. Any changes to the benefits that occur during the contract term may affect the cost of the benefits being provided in respect of all past service, not just the service being accrued with the new employer.

Employer discretions

The Regulations contain the flexibility for participating employers to exercise discretion in certain areas. The Regulations require that each participating employer must formulate, publish and maintain a written policy on the exercise of discretions.

Additional contributions in respect of early retirements

The new employer may be required to make additional contributions to the Fund to cover any additional costs arising as a result of members taking early retirement due to, for example, redundancy or efficiency, ill-health or flexible retirement.

The amount of any additional contributions required will be calculated by the Fund Actuary, or by the Administering Authority using tables supplied by the Fund Actuary.

Indemnity or bond

In accordance with Part 3 of Schedule 2 of the Regulations, the new employer is required to carry out an assessment of the level of risk to the Fund should their participation within the Fund cease due to, for example, insolvency, winding up or liquidation. This assessment will be to the satisfaction of the Administering Authority, having sought actuarial advice. If the new employer ceases to participate in the Fund for any reason then a cessation valuation will be completed by the Fund Actuary.

If, for any reason, it is not desirable for an admission body to enter into an indemnity or bond, the admission body may provide an alternative guarantee in a form satisfactory to the Administering Authority from:

(a) a person who funds the admission body in whole or in part;

(b) a person who owns, or controls the exercise of the functions of the admission body, for example a parent company; or

(c) the «GuaranteeWording» in the case of an admission body which is established by or under any enactment, and where that enactment enables the «GuaranteeWording» to make financial provision for that admission body.

We provided a recommended level of bond in the report dated 12 June 2014.

The admission body route (full transfer of risk)

In this section we consider the additional issues should the new employer be treated as an admission body within the Fund under «RegNumber» under a full risk transfer. This is the assumption made in the report previously provided.

This section should be read as a supplement to the above section on the general admission body route.

Funding at the start of the contract

At the start of the contract the pensionable service of the eligible employees will transfer to the new employer who will become responsible for the liabilities in respect of that service, and will be allocated assets in respect of them.

The allocation of assets is notional and for the sole purpose of determining the new employer's contribution rate; there is no actual transfer of assets to the new employer.

The funding of these liabilities at the outset may be defined within the admission agreement. For the purposes of the report previously provided, we assumed that the liabilities are transferred on a fully funded basis at the start of the contract. This means that the value of the liabilities will be calculated on the underlying ongoing funding basis, and the new employer will be notionally credited with assets of equal value.

The ongoing basis of calculation of the value of the liabilities and assets to be allocated to the new employer is decided by us as the Fund Actuary.

Any deviation from the fully funded position will be corrected at each triennial valuation via an adjustment to the new employer's contribution rate.

Ongoing contribution rate

The ongoing contribution rate represents the annual cost of benefits accruing and, as the liabilities are assumed to be transferred fully funded, makes no allowance for the transfer of any share of the deficit within the Fund.

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Contribution rates will be calculated again at each triennial valuation and should be regularly reviewed with a view to achieving a fully funded position at the end of the contract. The contribution rate may be reviewed more regularly as the contract end date draws near.

The calculated contribution rate includes an allowance to cover the normal expenses of the administration of the Fund. The New Employer will also be responsible for other administration costs incurred as a result of its participation in the Fund, including the cost of more frequent funding reviews towards the end of the contract.

In addition, employees continue to contribute at the rates set out in the Regulations.

Funding at the end of the contract

On termination of the admission agreement a cessation valuation will be completed by the Fund Actuary detailing the value of the liabilities and assets of the new employer within the Fund.

The basis of the calculation of this valuation will be determined by the Fund Actuary unless an alternative arrangement is specified within the admission agreement. The method and assumptions adopted will reflect the prevailing economic circumstances at the time.

If the liabilities are transferred fully funded at the start of the contract, then these should be returned on a fully funded basis at the end of the contract.

If the cessation valuation reveals a deficit then the new employer should expect to make payments to the Fund; where the cessation valuation results in a surplus the new employer will have nothing further to pay. The new employer will not receive any monies from the Fund.

Indemnity or bond

Where the contract is let with risks fully transferred to the new employer, the bond should also provide protection against underfunding risk in addition to the risk of strain costs and unpaid contributions and expenses.

Although the new employer is fully funded at the outset and the contribution rate is calculated to try to maintain this funding position, it is almost certain that the funding position will not be exactly 100% at any point in time in the future. The assumptions adopted are unlikely to be exactly borne out in practice, and the membership profile will change over time.

The admission body route (pass-through)

A pass-through agreement is one in which the contribution rate is fixed at outset and not recalculated during the remainder of the contract. Importantly, it also means that the new employer would not be required to fund any deficit at the end of the contract. However, in most cases, the new employer would still be expected to pay for the cost of any enhancements to members' benefits, including those payable via early retirement redundancies as well as meeting the contributions payable.

Under a pass-through arrangement, the majority of the pensions risk is borne by the Letting Authority rather than the new employer and so the Letting Authority may wish to be compensated for this by the new employer paying a higher rate.

Alternatively, if the new employer's tender is originally priced based on having fixed costs such as they would get from a pass-through arrangement (or a defined contribution scheme), it is quite possible that they will increase the cost if they are required to take on the pensions risk under the typical outsourcing arrangement.

Considered from either perspective, there is an argument either for the contribution rate under a pass-through arrangement to be higher or for the contract price charged to the Letting Authority to be lower when compared to the respective values if the risk is transferred to the new employer.

Barnett Waddingham's role

In producing the results for the full risk transfer scenario, we simply adopt the method and assumptions used at the last actuarial valuation for all employers in the Fund and apply them to the new employer. This is therefore a fairly objective calculation and different actuaries or actuarial firms would be expected to give very similar results based on the specified approach.

However, the same does not apply when considering the value of the risk transferred between the parties and there is no standard methodology to apply. For this reason, it is quite possible that the Letting Authority and the new employer would place a different value on the risk and it's important for us to clarify that we are advisers to neither party. Instead, we have calculated results on a method that we believe is appropriate and any agreement to use this or any other method is then left to the Letting Authority and the new employer. The only point that we stipulate is that we would not expect the pass-through contributions to be any lower than the initial rates calculated and set out, in the report previously provided, if the risk fully transferred to the new employer.

Risks transferred and risks valued

There are various pensions risks that apply to any outsourcing contract and they can be divided up between the Letting Authority and new employer depending on the terms of any agreement. Below we consider the risks under a full risk arrangement, those under a pass-through arrangement and detail the risks we have actually modelled.

Risk	Full risk transfer	Pass-through	Modelled
Investment risk during the contract	New employer	Letting Authority	Yes
Inflation risk during the contract	New employer	Letting Authority	Yes
Salary risk during the contract	New employer	Mainly the Letting Authority	Only in line with changes in inflation. Any changes in salary increases not connected to RPI inflation are not allowed for
Mortality risk during the contract	New employer	Letting Authority	No
Any change in actuarial assumptions	New employer	Letting Authority	Market related only, doesn't cover any fundamental changes e.g. to future life expectancies
Number of members leaving during the contract	New employer	Letting Authority	No
Early retirements during the contract	New employer	Usually the new employer	No
Ill health retirements during the contract	New employer	Varies but we have assumed the Letting Authority	No
Discretions	New employer	Usually the new employer	No
Regulatory change	Depends on the details of the change but usually the new employer	Letting Authority	No

Results

Previous report

In the report provided at 12 June 2013 the recommended ongoing contribution rates were 12.0% of payroll under an open agreement and 14.0% under a closed agreement.

In our projections we have assumed that the employer would continue to pay these rates until the next contribution rate review at 1 April 2017.

Admission body route (pass-through)

We have projected 10,000 economic scenarios and considered the contributions as a percentage of salary that would be payable by the contractor under each scenario, depending on any agreed separation of risk. Summarised in Appendix 2 are the average returns over the next 20 years for each asset class, the standard deviation of each asset class and the assumed correlations.

We have also considered the approach taken by the Devon County Council Pension Fund at the 2013 valuation for contribution reviews (for employers who do not have a pass-through arrangement), which was that:

- Where there is a surplus at an interim valuation, half of the expected surplus will be rebated to the contractor through their contribution rate;
- Where there is a deficit, all of the deficit will be targeted through the contractor's contribution rate; and
- The above surplus/deficit adjustment will be spread over the remaining period of the contract.
- An employer open to new members will pay a minimum contribution rate of 12%

At the end of the contract, a cessation valuation would normally be carried out. The method and assumptions used are at the discretion of the actuary but we have assumed that they would be consistent with the assumptions used in this report. If the cessation valuation shows a deficit, the contractor is usually required to fund this but it is not possible to refund any surplus and so the Letting Authority normally absorbs when they take back the pension obligations.

The results of the 10,000 runs have been ranked and summarised below, depending on whether the agreement is open or closed and also varying by the term of the contract. The below is expressed as a percentage of salary for the whole duration of the contract from 1 October 2014.

Open Term	1%	5%	10%	25%	50%	75%	90%	95%	99%
1 Year	54.7%	41.7%	33.9%	21.6%	12.0%	12.0%	12.0%	12.0%	12.0%
2 Years	53.6%	41.0%	34.0%	23.2%	12.1%	12.0%	12.0%	12.0%	12.0%
3 Years	51.3%	40.1%	34.4%	24.2%	13.9%	12.0%	12.0%	12.0%	12.0%
4 Years	49.8%	39.8%	34.4%	24.9%	15.1%	12.0%	12.0%	12.0%	12.0%
5 Years	49.0%	39.3%	34.2%	25.5%	16.1%	12.0%	12.0%	12.0%	12.0%
6 Years	48.0%	38.7%	33.8%	26.1%	16.9%	12.0%	12.0%	12.0%	12.0%
7 Years	47.1%	39.3%	34.4%	26.5%	17.6%	12.0%	12.0%	12.0%	12.0%
8 Years	46.9%	38.7%	34.4%	27.0%	18.1%	12.0%	12.0%	12.0%	12.0%
9 Years	46.9%	38.7%	34.6%	27.7%	18.7%	12.0%	12.0%	12.0%	12.0%
10 Years	47.0%	39.0%	34.9%	28.0%	19.2%	12.0%	12.0%	12.0%	12.0%

In terms of understanding what this means, the figures in the 1% percentile column represent the results of the 100th worst case scenarios, so for 100 in 10,000 scenarios the contribution rate could be this level or higher. At the other extreme, the figures in the 99% percentile column represent the results of the 100th best case scenarios, so for 100 in 10,000 scenarios the contribution rate could be at this level or lower. (Note that the contribution has been kept to a minimum of 12%).

So for an open contract with a term of 5 years, in 75% of scenarios the overall contribution rate was 25.5% or lower. The median rate (50th percentile) for a contract length of 5 years is 16.1%, this is the middle point where half of the projections gave a higher rate and half gave a lower rate.

Closed Term	1%	5%	10%	25%	50%	75%	90%	95%	99%
1 Year	56.6%	43.6%	35.7%	23.4%	14.0%	14.0%	14.0%	14.0%	14.0%
2 Years	57.4%	44.2%	37.0%	25.7%	14.1%	14.0%	14.0%	14.0%	14.0%
3 Years	56.6%	44.5%	38.4%	27.4%	16.3%	12.5%	11.3%	10.7%	9.9%
4 Years	56.0%	45.0%	39.0%	28.6%	17.8%	12.4%	11.0%	10.3%	9.3%
5 Years	55.9%	45.1%	39.4%	29.6%	19.0%	12.3%	11.0%	10.3%	9.3%
6 Years	55.5%	45.0%	39.5%	30.7%	20.1%	11.8%	10.2%	9.5%	8.7%
7 Years	55.4%	46.3%	40.6%	31.4%	21.1%	12.0%	9.7%	9.0%	8.1%
8 Years	55.9%	46.0%	41.1%	32.3%	22.0%	12.1%	9.8%	8.6%	7.6%
9 Years	56.5%	46.5%	41.7%	33.4%	22.8%	12.2%	9.7%	8.5%	7.2%
10 Years	57.5%	47.5%	42.6%	34.2%	23.7%	13.0%	9.6%	8.5%	7.0%

In terms of understanding what this closed contract table of results means, it shows that with a closed 7 year contract, the overall contribution rate was 31.4% of salaries or higher in 25% of the runs. Put another way, a 31.4% pass-through rate would mean that the Letting Authority would expect to profit (i.e. more contributions are received and then eventually passed back to the Letting Authority at the end of the contract) 75% of the time compared to passing the risk to the contractor as 75% of the time the required rate would actual be lower than 31.4%.

These results show that:

- The cost for an employer that takes on the full risk is usually higher than the calculated initial rate (e.g. compare the median rate of 16.9% on the open 6 year contract with 12.0%). This is because employers have to pay towards deficits, including on termination, whereas they get limited benefit from any surpluses.
- Under a closed agreement the contribution rate is generally higher, this is to be expected due to the ageing profile of the members. However, under a closed agreement, the Employer (under a full transfer of risk) would benefit from lower contribution rates over longer contract lengths where returns are favourable; whereas the benefits of high returns under an open contract are capped.

Please note that these rates are assumed to be adopted for the period from 1 April 2016 to the end of the contract and not the total contribution rate for the entirety of the contract.

The threshold that is an acceptable price for the risk transfer is a matter for agreement between the Letting Authority and the contractor but, as noted previously, we would expect any pass-through rate to be at least the rates recommended under a full transfer of risks under either an open and closed agreement so that the expected cost of the benefits is covered.

We would suggest adopting a rate that is halfway between the 25th and 50th percentiles. So for example on an open 5 year contract adopt a rate of (25.5% + 16.1%)÷2 = 20.8%.

Although a pass-through arrangement passes the funding risk from the new employer to the Letting Authority, some risks remain with regard to early retirements, unpaid contributions and expenses. We would be happy to calculate a recommended bond level based on updated membership information however believe that, as the level of bond recommended in the previous report includes allowance for these risks as well as the risk of underfunding, the level of bond currently held will remains appropriate.

Final Comments

For the purposes of our calculations it is assumed that if a full risk transfer takes place then the risks would all be transferred to the new employer the liabilities would be transferred on a fully funded basis at the start of the contract. Please note that the liabilities would be transferred fully funded on an ongoing funding basis. On an accounting basis, the value placed on the liabilities is generally expected to be higher and as such we would expect there to be a deficit at the start of the contract on an accounting basis.

If the contract is to be let with pass-through provisions, any deficit arising over the contract period will be the responsibility of the Letting Authority rather than the new employer. The new employer will be required to pay the pass through rate as specified within the admission agreement (and this may differ from the ongoing cost of accrual).

We would be pleased to answer any questions arising from this report.

Graeme D Muir FFA
Partner, Barnett Waddingham LLP

Appendix 1 **Data and demographic assumptions**

The membership data for the members currently in the LGPS is summarised below.

Active Members	Number	Actual Pensionable Salary	FTE Pensionable Salary	Average Age	Avg Pensionable Service (years)
Male	50	£1,323,297	£1,336,215	37.4	7.6
Female	18	£400,998	£449,393	43.2	7.7
Total	68	£1,724,296	£1,785,608	38.9	7.6

The demographic assumptions adopted are summarised as follows:

Demographic and other assumptions	
Post-retirement mortality	The post retirement mortality tables adopted for all calculations are the S1PA series with a multiplier of 100% for males and 90% for females, making allowance for CMI 2012 projected improvements and a long term improvement rate of 1.5% p.a.
Commutation	It is assumed that members will exchange half of their commutable pension for cash at retirement
Retirement age	Members retire at a single age, based on the average age at which they can take each tranche of their pension

Appendix 2 Financial assumptions used for pass-through modelling

The assumptions adopted are set out below. These assumptions are based on a combination of historical analysis, econometric estimation, macro-economic model simulation and judgement both by Barnett Waddingham and external sources. The assumptions are intended to represent "best estimates" at the date of transfer and are based on passive implementation with no allowance for potential additional risk or return as a result of active management (except for the fund of hedge funds and target return asset classes which are inherently actively managed).

The output from the model is sensitive to the choice of assumptions and should therefore always be considered in the context of the assumptions that have been adopted. The one year standard deviation figures relate to the distributions of returns looking over each of the next 30 years in aggregate. The ten year figures relate to the next ten years.

The asset allocation at the last actuarial valuation at 31 March 2013 was 8% gilts, 3% cash, 7% bonds, 60% equities, 6% property and 15% target return funds. We have assumed that this strategy will stay in place over the period of the contract.

Asset/index	One year median return % p.a.	Ten year mean return % p.a.	Ten year median return % p.a.	Median thirty year annualised return p.a.	One year standard deviation
UK equities	8.7%	5.8%	6.1%	6.4%	16.2%
Property	6.5%	4.8%	5.1%	5.6%	8.9%
Target return	7.4%	5.9%	6.2%	6.7%	7.9%
Over 15 year UK index-linked gilts	3.0%	2.3%	2.3%	3.0%	15.5%
Over 15 year UK corporate bonds	4.1%	2.9%	2.9%	3.9%	9.8%
RPI inflation	3.3%	2.8%	2.8%	3.3%	1.9%

The table below sets out the correlation assumptions between asset classes used in the projections. Correlations are not constant over time. The degree of co-movement between various asset classes will change over time and this effect is allowed for within the projections. As such the table shows the arithmetic mean correlations between the various asset classes.

Correlations	UK equities	Property	Target return	Over 15 year index-linked gilts	Over 15 year UK corporate bonds	RPI inflation
UK equities	1.00	0.48	0.45	-0.12	0.04	0.11
Property	0.48	1.00	0.17	-0.08	0.05	0.10
Target return	0.45	0.17	1.00	-0.08	0.04	0.02
Over 15 year UK index-linked gilts	-0.12	-0.08	-0.08	1.00	0.45	0.08
Over 15 year UK corporate bonds	0.04	0.05	0.04	0.45	1.00	0.07
RPI inflation	0.11	0.10	0.02	0.08	0.07	1.00

Limitations of asset-liability modelling

Asset-liability models such as this are not intended to be predictive of the future. Unexpected events can and do happen in global markets and such uncertainty is impossible to accurately model and the output of any model is only as good as the parameters that the model uses. The future is, or course, unknown, and if the world economy turns out to be different from that implied by the assumptions then the level of risk could turn out to be higher or lower than predicted by the model.

The scenarios of most interest are also the ones which are most difficult to model. These are the scenarios which incorporate large changes in asset values or yields. The difficulty in modelling such extreme events is that they occur infrequently over time; it is not possible to say for certain what level of loss is likely to occur one year in 100 as we have only one period of this length to inform our estimate of this risk. The level of risk based upon historic analysis is therefore likely to be lower than the true value.

It is important to bear in mind that a model which overestimates the level of risk can cause as many problems as one which underestimates risk as it can lead to too much caution and, in this case, could lead to excessive contributions being paid by the new employer.