

HEALTH WEALTH CAREER

ACTUARIAL VALUATION REPORT

ABERDEEN CITY COUNCIL
TRANSPORT FUND

AS AT 31 MARCH 2017

MAKE TOMORROW, TODAY



CONTENTS

1. Introduction	1
2. Funding Strategy – Key Elements	3
3. Key results of the funding assessment	4
• Solvency funding position	4
• Primary contribution rate	5
• Correcting the shortfall – secondary contribution rate	5
4. Experience since last valuation	7
• Summary of key inter-valuation experience	7
• Reasons for the change in funding position since the last actuarial valuation	8
5. Cashflows, risks and alternative funding positions	9
• Benefit cashflows	9
• Projected funding position at next actuarial valuation	9
• Material risks faced by the Fund	10
• Sensitivity of funding position to changes in key assumptions	11

APPENDICES

A. Assumptions	13
• How the benefits are valued	13
• Financial assumptions used to calculate the solvency funding target	14
• Demographic assumptions used	14
• Assumptions used to calculate the primary contribution rate	18
B. Summary membership data	19
C. Assets	20
D. Scheme benefits	21
E. Summary of income and expenditure	23
F. Analysis of membership experience	24
G. Rates and adjustments certificate issued in accordance with Regulation 60	25
• Primary contribution rate	25
• Secondary contribution rate	25
• Contribution amounts payable	25
• Further adjustments	25
• Regulation 60(8)	26
H. Schedule to the rates and adjustments certificate dated 31 March 2018	27
I. Glossary	28

1

INTRODUCTION

This report is addressed to the Administering Authority of the Aberdeen City Council Transport Fund (“the Administering Authority”) and is provided to meet the requirements of Regulation 60 of the Local Government Pension Scheme (Scotland) Regulations 2014 (as amended) (“the Regulations”). It describes the factors considered by the Administering Authority when carrying out the actuarial valuation as at 31 March 2017 and the decisions reached as a result.

The purpose of the actuarial valuation is for the Administering Authority to determine:

- The expected cost of providing the benefits built up by members at the valuation date (the “liabilities”), and compare this against the funds held by the Fund (the “assets”).
- The contributions needed to cover the cost of the benefits that active members will build up in the future and other costs incurred in running the Fund (the “Primary Contribution Rate”).
- An appropriate plan for making up the shortfall if the Fund has less assets than liabilities. This plan will cover the amounts which will need to be paid (the “Secondary Contribution Rate”) and the timeframe over which they will be paid (“the Recovery Period”).

SIGNATURE




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QUALIFICATION

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DATE

28 March 2018

28 March 2018


This report uses various technical terms. These are explained in more detail in the explanatory boxes which appear throughout this report, and in the Glossary at Appendix I.

The work is covered by and compliant with the following Technical Actuarial Standards (TAS) issued by the Financial Reporting Council: TAS 100: Principles for Technical Actuarial Work" and TAS 300: Pensions. The calculations referred to in the report use methods and assumptions appropriate for reviewing the financial position of the Fund and determining a contribution rate for the future. Mercer does not accept liability to any third party in respect of this report; nor do we accept liability to the Administering Authority if the information provided in this report is used for any purpose other than that stated. The report may be disclosed to members and others who have a statutory right to see it. It may also be disclosed to any participating employer and, if the Administering Authority and Mercer consent, it may be disclosed to other third parties.

2

FUNDING STRATEGY – KEY ELEMENTS

Fundamental to the valuation results is the funding strategy adopted by the Fund. This funding strategy is set out in a specific document (the Funding Strategy Statement or FSS for short) which is one of the Administering Authority's key governance documents for the Fund. In essence, the FSS sets out an overview of the approach to be used for the actuarial valuation. Amongst other things it outlines the assumptions, both economic and demographic, to be used in calculating the value of the liabilities built up and the contributions required correct any fund shortfall, and the contribution rate required to fund the benefits for future service. It also sets out the strategy for making good any funding shortfall, in particular how any shortfall is expected to be financed in terms of the balance between future contributions and future investment returns, and the period over which any shortfall is expected to be recovered.



The FSS is the Administering Authority's key governance document in relation to the actuarial valuation. It sets out the funding policies adopted, the actuarial assumptions used, and the timescales over which deficits will be paid off. The Employer is consulted about the FSS as part of the actuarial valuation process.

The principal elements of the funding strategy adopted for this actuarial valuation are as follows:

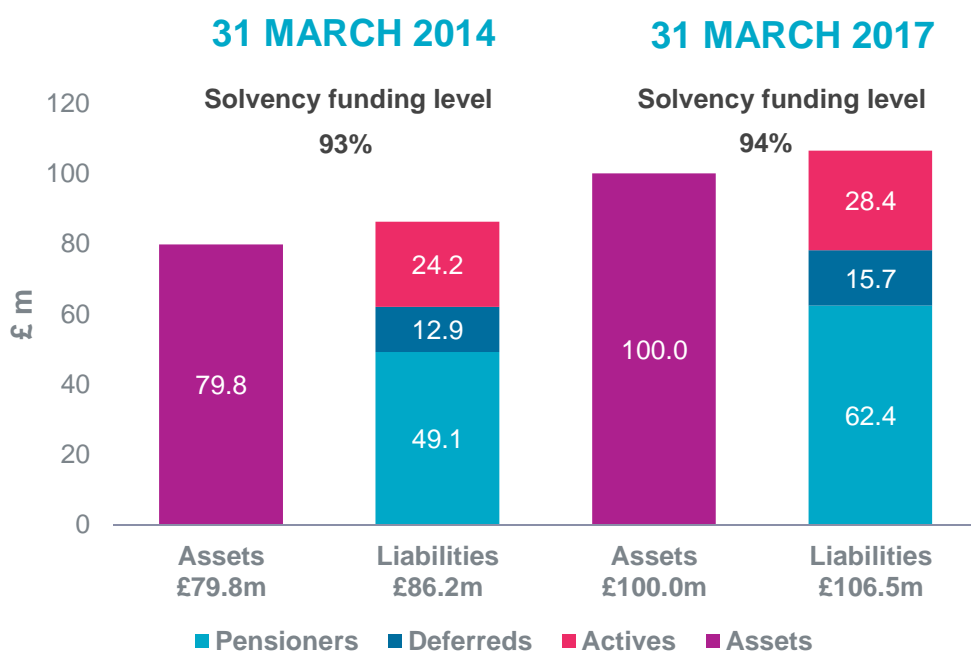
- Assumed rate of future CPI inflation – 2.9% p.a., based on the yields available on gilts and index-linked gilts of appropriate duration less an adjustment of 0.5% p.a. to allow for the difference between market-implied future RPI and estimated future CPI inflation.
- Investment returns - derived based on an assumed return equal to the gilt yield derived from market instruments, principally conventional UK Government gilts as at the valuation date, reflecting the profile and duration of the Scheme's liabilities.
- Future pay growth – Allowance for pay growth of 2.9% (i.e. equal to the CPI assumption) over one year to 31 March 2018, for continuity with the assumptions adopted at the 31 March 2014 actuarial valuation, and then 0.5% p.a. over and above CPI in the longer term i.e. an average of 3.4% p.a.
- Baseline life expectancy based on a scheme-specific mortality study.
- Future mortality improvements based on the CMI 2015 model with a long-term improvement trend of 1.75% p.a. for both men and women.
- A recovery plan for making good any shortfall.

3

KEY RESULTS OF THE FUNDING ASSESSMENT

SOLVENCY FUNDING POSITION

The table below compares the assets and liabilities of the Fund at 31 March 2017. Figures are also shown for the last valuation as at 31 March 2014 for comparison.



The chart shows that **at 31 March 2017 there was a deficit of £6.5m** against the Fund's solvency funding target. An alternative way of expressing the position is that the Fund's assets were sufficient to cover 94% of its liabilities – this percentage is known as the solvency funding level of the Fund.

At the previous valuation at 31 March 2014 the shortfall was also £6.4m, equivalent to a solvency funding level of 93%. The key reasons for the change in funding level between the two valuations are considered in Section 4.

The liability value at 31 March 2017 shown in the table above is known as the Fund's "solvency funding target". The solvency funding target is calculated using assumptions that the Administering Authority has determined are appropriate having consulted with the actuary, and are also set out in the Administering Authority's Funding Strategy Statement (FSS).

The LGPS (Scotland) Regulations require the contributions to be set so as to secure the Fund's solvency and long-term cost efficiency. In this context solvency means being able to meet the liabilities as and when they arise, with long-term cost efficiency meaning that contribution levels should not be set so as to give rise to additional costs at a later date. In practice, contribution levels have been set so as to target a solvency funding level of 100%, based on the funding parameters outlined in Section 2 above.

The above liabilities allow for the fact that pension increases will continue to be recharged £ for £ to the North East Scotland Pension Fund in respect of pensionable service accrued prior to 26 October 1986.


Further details of the way in which the solvency funding target has been calculated are set out in Appendix A.

In assessing the solvency funding target, allowance has been made for investment returns as described in Appendix A, taking into account the investment strategy adopted by the Fund, as set out in the Fund's Investment Strategy Statement (ISS).

It is not possible to construct a portfolio of investments which produces a stream of income exactly matching the expected liability outgo. However, the Fund's investment strategy framework at the valuation date aims to better match the liabilities and is designed to minimise fluctuations in the Fund's funding position between successive actuarial valuations. The Fund's 'Flight Path' de-risking strategy has been set up to do this and is managed by Schroders through a fiduciary basis mandate.

PRIMARY CONTRIBUTION RATE

The valuation looks at the normal employer contribution rate required to cover the cost of the benefits (including death benefits and expenses) that will be built up over the year after the valuation date (the "Primary Contribution Rate"). A summary of the assumptions used is provided in Appendix A.



The "Primary rate" of the employers' contribution is the contribution rate required to meet the cost of the future accrual of benefits including ancillary death in service and ill health benefits together with administration costs.

The table below gives a breakdown of the Primary Contribution Rate at 31 March 2017 and also shows the corresponding rate at 31 March 2014 for comparison. In calculating the Primary Contribution Rate we have not made any allowance for members to opt for the 50:50 scheme in future. This is consistent with the assumption used in the 2014 valuation.

Active members pay contributions to the Fund as a condition of membership in line with the rates required under the governing Regulations (see Appendix D).

PRIMARY CONTRIBUTION RATE	% of Pensionable Pay	
	31 March 2014	31 March 2017
Normal Contribution rate including expenses	50.9	64.6
Average member contribution rate	6.0	6.1
Primary contribution rate	44.9	58.5

CORRECTING THE SHORTFALL – SECONDARY CONTRIBUTION RATE

The funding objective as set out in the FSS is to achieve and maintain a solvency funding level of 100% of liabilities (the solvency funding target). In line with the FSS, where a shortfall exists at the effective date of the valuation a deficit recovery plan will be put in place which requires additional contributions to correct the shortfall.



The FSS sets out the process for determining the recovery plan.

The Administering Authority and First Aberdeen Limited have agreed that First Aberdeen Limited will maintain the same level of current contributions which are 33% of pensionable pay plus £1.5m p.a. At present, therefore, part of the £1.5m annual payment is being used to finance the costs in relation to future service. This means that the amount to recover the shortfall is approximately £1.1m p.a. On this basis the deficit would be expected to be removed in around 5 years.

The “Secondary rate” of the employers’ contribution is an adjustment to the Primary rate to reflect any past service deficit or surplus, to arrive at the rate the Employer is required to pay.

These contributions will continue over 2018/2021 unless the solvency funding level reaches 105% as assessed by the Fund Actuary. At this point discussions will be had as to whether the contributions will be reduced, possibly to nil. This will be based on the advice of the Fund Actuary taking into account all relevant factors e.g. investment risk (including the level of hedging in the portfolio) and covenant of the sponsor.

4

EXPERIENCE SINCE LAST VALUATION

SUMMARY OF KEY INTER-VALUATION EXPERIENCE

The last actuarial valuation was carried out with an effective date of 31 March 2014. With effect from 1 April 2015 the scheme's benefit structure changed from a Final Salary Scheme to a Career Average Revalued Earnings (CARE) Scheme, and the 2014 actuarial valuation took these changes into account.

The average Pensionable Salary increase for the Fund members who were in service for the whole of the inter-valuation period was 2.0% per annum.

Pensions in payment (in excess of Guaranteed Minimum Pensions (GMPs)) were increased as guaranteed under the Fund as follows:

- April 2015 1.2%
- April 2016 0%
- April 2017 1.0%

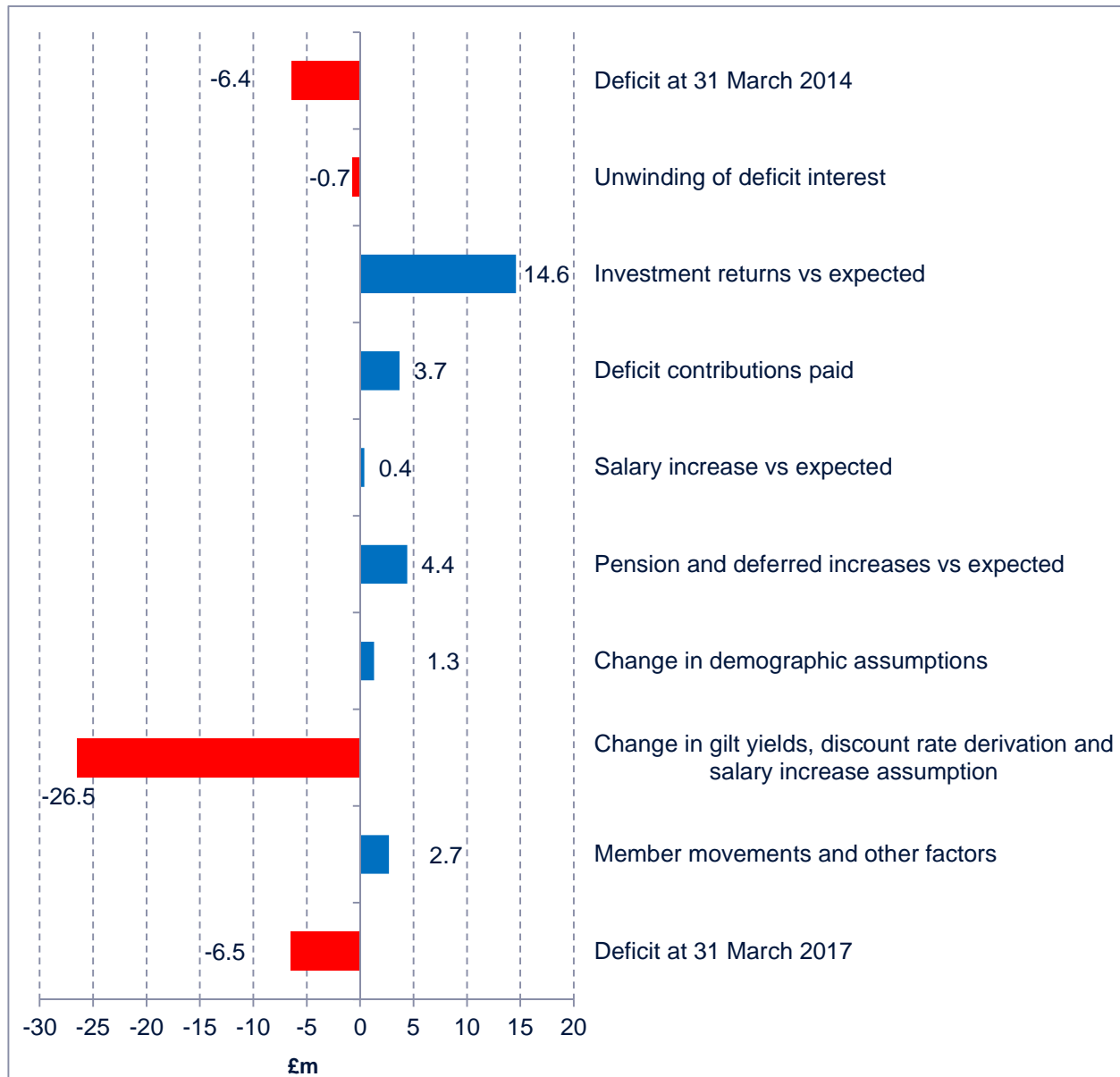
Over the intervaluation period, benefit inflation has averaged 0.7% p.a. Over the three years to 31 March 2017 the net investment return on the Fund's assets has averaged approximately 9% p.a.



The outcomes from the valuation are determined both by the assumptions adopted for the future, and the Fund's historic experience relative to assumptions made in the past. In this section we consider the effect of the Fund's experience over the last three years.

REASONS FOR THE CHANGE IN FUNDING POSITION SINCE THE LAST ACTUARIAL VALUATION

The shortfall at the last valuation date was £6.4m. The chart below sets out the main reasons for the change in the position between 31 March 2014 and 31 March 2017.



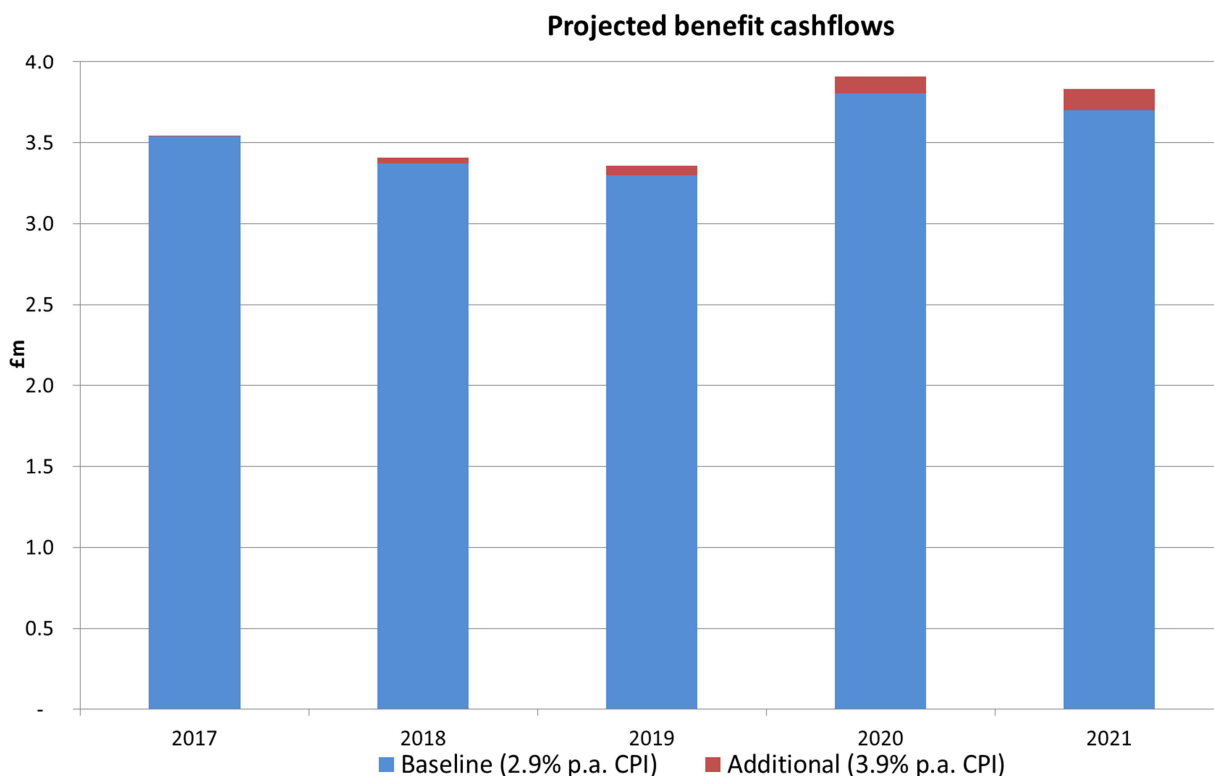
5

CASHFLOWS, RISKS AND ALTERNATIVE FUNDING POSITIONS

BENEFIT CASHFLOWS

The projected benefit cashflows which result from applying the past service assumptions as set out in Section 2 are shown in the chart below. The additional red elements set out how those projected benefit cashflows would change if we were to assume inflation of 1% p.a. higher than the assumption of 2.9% p.a. used for the actuarial valuation. Over the 5 years following the valuation date, the extra benefit payments which would result from the extra 1% p.a. inflation assumption are projected to be c£330,000.

The actuarial valuation process is principally concerned with projecting all the benefit cashflows into the future, and then converting them into present day values by discounting them to allow for assumed future investment returns. The chart shows those projected cashflows, and also illustrates how sensitive they are to the future inflation assumption.



PROJECTED FUNDING POSITION AT NEXT ACTUARIAL VALUATION

As part of this valuation, the Administering Authority has set a recovery plan to pay off the shortfall. The next actuarial valuation will take place with an effective date of 31 March 2020. If experience up to that date is in line with the assumptions made for this current actuarial valuation and

contributions are paid at the agreed rates or amounts, the deficit at 31 March 2020 would be c£3m, equivalent to a funding level of 97%.

MATERIAL RISKS FACED BY THE FUND

The Fund is subject to some potentially material risks that are, to an extent, outside the Administering Authority's control, but could affect the funding level. Any material worsening of the funding level will mean more contributions are needed (either at an increased rate or at the same rate over a longer period) to be able to provide the benefits built up in the Fund – unless experience acts in other ways to improve the funding level. Examples of such risks, and how the Administering Authority manages them, are:

- If the Employer becomes unable to pay contributions or to make good any deficits in the future, the Fund's assets will be lower than expected and the funding level will be worse than expected. The Administering Authority regularly monitors the financial strength of the Employer so that actions can be taken to mitigate (but not fully remove) the risk.
- If future investment returns on assets are lower than assumed in the valuation, the Fund's assets will be lower, and the funding level worse, than expected. The Administering Authority has a process in place to monitor investment performance regularly, and it reviews the Fund's investment strategy alongside each actuarial valuation.
- If improvements in life expectancy are greater than assumed, the cost of benefits will increase because members are living longer than expected. This will mean the funding level will be worse than expected. The Administering Authority regularly reviews the Fund's experience and ensures that the assumptions it makes about members' life expectancy take the most recent information available into account.
- If members make decisions about their options which increase the Fund's liabilities, the funding level will be worse than expected. An example would be if members commute less pension for cash than is being assumed. The Administering Authority reviews the Fund's experience at each valuation to ensure that the treatment of member options remains appropriate.

SENSITIVITY OF FUNDING POSITION TO CHANGES IN KEY ASSUMPTIONS

The value placed on the Fund's liabilities is critically dependent on the assumptions used to carry out the calculations. If future experience differs from the assumptions the Administering Authority has used after consulting with the Employer, then the projected future funding level will be different from the level described above.

To illustrate how sensitive the funding level is to experience being different from assumed, the table below shows how the valuation results at 31 March 2017 would have differed given small changes in the key assumptions.

Original solvency funding position	A shortfall of £6.5m i.e. (£6.5m)	
ASSUMPTION CHANGE	CHANGE IN SHORTFALL AT 31 MARCH 2017 (£M)	RESULTANT SURPLUS/ (SHORTFALL) AT 31 MARCH 2017 (£M)
Real investment return 0.25% p.a. lower than assumed	- 4.7	(11.2)
Pensionable Salary growth 0.25% p.a. higher than assumed	- 0.3	(6.8)
Members live one year longer than assumed	- 4.0	(10.5)
Equities fall by 25%	- 7.5	(14.0)

For example, if real investment returns were 0.25% p.a. lower than assumed, the initial shortfall of £6.5m would reduce by £4.7m, resulting in a shortfall of £11.2m.

APPENDICES

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A

ASSUMPTIONS

HOW THE BENEFITS ARE VALUED

In order to calculate the liabilities, there is a need to make assumptions about various factors that affect the cost of the benefits provided by the Fund – for example, how long members will live, or the future level of inflation. The table below explains the key assumptions being made in the valuation.

ASSUMPTION	WHY IT IS IMPORTANT AND HOW IT IMPACTS ON THE LIABILITIES
Discount rate	<p>The majority of benefits in a pension fund are paid many years in the future. In the period before the benefits are paid, the Administering Authority invests the funds held by the Fund with the aim of achieving a return on those funds. When calculating how much money is needed now to make these benefit payments, it is appropriate to make allowance for the investment return that is expected to be earned on these funds. This is known as “discounting”.</p> <p>The higher the investment return achieved, the less money needs to be set aside now to pay for benefits. The calculation reflects this by placing a lower value on the liabilities if the “discount rate” is higher.</p>
Inflation	<p>Pensions in payment increase in line with price inflation. Salary growth is also normally linked to price inflation in the long term. A higher inflation assumption will, all other things being equal, lead to a higher value being placed on the liabilities.</p>
Pensionable Salary growth	<p>Benefits earned prior to 1 April 2015 for active members are based on their salaries immediately before retirement, so it is necessary to make an assumption about future Pensionable Salary growth. The higher this assumption, the higher the value placed on the liabilities for active members.</p>
Life expectancy	<p>Pensions are paid while the member (and potentially their spouse or partner) is alive. The longer people live, the greater is the cost of providing a pension. Allowing for longer life expectancy therefore increases the liabilities.</p>

The liabilities of the Fund are calculated by projecting forward all of the future benefit cash flows and discounting them back to the effective date of the valuation, using these assumptions. For example, the liability for a single pensioner is calculated by estimating the amount of each pension payment they will receive in the future, multiplying by the probability that the member will still be alive by the date of each payment, and then discounting each payment back to the effective date of the valuation; and then summing up all of these discounted amounts. The liabilities for the whole Fund are calculated by summing the liabilities for each of the individual members.

FINANCIAL ASSUMPTIONS USED TO CALCULATE THE SOLVENCY FUNDING TARGET

The table below summarises the key financial assumptions used in the calculation of the solvency funding target and those used for the 31 March 2014 actuarial valuation.

FINANCIAL ASSUMPTIONS	31 March 2017	31 March 2014
Discount rate	1.6% p.a.	3.65% p.a.
Price inflation (CPI)	2.9% p.a.	3.1% p.a.
Salary increases (short term)	CPI (2.9%) to 31 March 2018	CPI (3.1%) to 31 March 2018
Salary increases (long term)	3.4% p.a.	5.1% p.a.
Pension increases in payment:	2.9% p.a.	3.1% p.a.

DEMOGRAPHIC ASSUMPTIONS USED

Post-retirement Mortality

Mortality (or life expectancy) tables are typically made up of three elements: a baseline table (equivalent to the expected current mortality), an allowance for future improvements, and a margin for prudence. Very few pension funds are large enough for them to be able to determine a bespoke set of baseline assumptions based purely on the fund's own membership experience. Typically, the life expectancy assumptions are set by benchmarking a fund's membership profile and mortality experience against larger external datasets. For this actuarial valuation, we have benchmarked the Fund's membership profile and experience against the "S2 tables" published by the CMI. We have applied weightings and age ratings as appropriate to adjust the standard tables so as to arrive at assumptions which are appropriate for the Fund. We have generally used the S2PA tables, other than for female dependants where the S2DA tables have been used. At the 2014 actuarial valuation the S1PA tables were used (S1DA tables for female dependants).



There are two separate decisions on mortality assumptions:

- The baseline table for the current rates of mortality; and
- The allowance for future improvements.

Baseline
Life expectancy today

Measured by LGPS-wide and fund-specific



Future Changes
How things may change

More uncertain and subjective



Prudence
Margin for uncertainty

The weightings and age ratings applied to the above are set out in the table below:

Current Status	Retirement Type	2017 weighting/rating	2014 weighting/rating
Annuitant	Normal Health	109% males, 87% females	103% males, 107% females
	Dependant	136% males, 118% females	228% males, 120% females
	Ill Health	109% males, 87% females with an age rating of +3 years in each case	103% males, 107% females with an age rating of +3 years in each case
	Future Dependant	128% males, 100% females	100% males, 105% females
Active	Normal Health	99% males, 109% females	106% males, 103% females
	Ill Health	99% males, 109% females with an age rating of +4 years in each case	106% males, 103% females with an age rating of +4 years in each case
Deferred	All	135% males, 97% females	127% males, 91% females
Active / Deferred	Future Dependant	128% males, 100% females	100% males, 105% females

A weighting applied to an actuarial table has the effect of increasing or reducing the chance of survival at each age, which increases or reduces the corresponding life expectancy. Similarly, an age rating applied to an actuarial table has the effect of assuming that beneficiaries have a life expectancy equal to those older (or younger) than their actual age.

Future improvements are assumed to follow the CMI 2015 model with a 1.75% p.a. long-term improvements trend for both males and females. At the 2014 actuarial valuation the CMI 2013 model with a 1.5% p.a. long-term improvements trend was used.

The mortality assumptions used for the 31 March 2017 valuation result in the following life expectancies.

	Years
Life expectancy for a male aged 65 now	22.2
Life expectancy at 65 for a male aged 45 now	25.6
Life expectancy for a female aged 65 now	26.2
Life expectancy at 65 for a female aged 45 now	27.0


Pre-retirement Mortality

The following mortality tables (together with any appropriate weightings and age ratings) have been adopted for mortality rates in the period up to retirement.

	31 March 2017	31 March 2014
Base Table	DxL08 tables with adjustments of 80% (male) 50% (female) to reflect the Fund's membership profile	AC00 tables with adjustments of 73% (male) and 60% (female) to reflect the Fund's membership profile
Allowance for Future Improvements	CMI_2015 [1.5%]	N/A

Commutation

It has been assumed that, on average, 50% of retiring members will take the maximum tax-free cash available at retirement and 50% will take a 3/80ths cash sum (the standard for pre April 2009 service). Members have the option to commute part of their pension at retirement in return for a lump sum at a rate of £12 cash for each £1 per annum of pension given up.



Retirement lump sums are less costly for the Fund to provide than the alternative pension, as members receive only £12 of each £1 p.a. of pension given up. If members take the cash sum option at a higher rate than has been assumed then this will normally lead to an improvement in the funding level.

Early retirement

Some members are entitled to receive their benefits (or part of their benefits) unreduced from an age prior to the Fund's normal pension age under the "Rule of 85" provisions of the Regulations. This age will be at some point between ages 60 and 65, depending on the length of a member's pensionable service. The calculations in respect of the relevant service to which these terms apply (basically pre April 2008 service but with transitional protections for certain members) allow for members to retire at this age.

For post April 2008 service (other than protected service) the situation is different since the "Rule of 85" has been removed (and for post December 2006 service for new entrants to the Scheme from that date). For this service we have assumed the earliest age at which unreduced benefits become an entitlement is 65, except for those members who have protected status under the transitional provisions.

For post April 2015 service, early retirement factors are applied where the retirement age described above is below the member's eligible retirement age for unreduced benefits for post April 2015 service. Factors are in line with the standard scheme factors produced by the Government Actuary's Department.

No allowance has been made for non-ill health early retirements prior to the ages specified above. Additional capital contributions will be paid by the Employer in respect of the cost of these retirements.


Ill health retirement

A small proportion of the active membership has been assumed to retire owing to ill health. As an example of the rates assumed, the following is an extract from the decrement table used:

	% retiring per annum	% retiring per annum
Age	Males	Females
35	0.09	0.08
45	0.26	0.24
55	1.14	1.00

The proportion of ill health early retirements falling into each tier category has been assumed to be as set out below:

Tier 1	Tier 2
86%	14%




The level of ill-health retirement benefit provided for a member falls into one of three "tiers", depending on whether and when the member might be expected to resume gainful employment. Tier 1, for example, is on the basis that the member is unlikely to be able to do so before Normal Pension Age. Full details are set out in the LGPS (Scotland) Regulations.

Withdrawal

This assumption relates to those members who leave the scheme with an entitlement to a deferred pension or transfer value. It has been assumed that active members will leave the Scheme at the following sample rates:

	% leaving per annum	% leaving per annum
Age	Males	Females
25	20.25	22.38
35	5.09	6.27
45	2.54	3.89




In relation to pre 2015 benefits, deferred benefits tend to be less costly for the Fund to provide than if the member had remained in the Fund until retirement. If the number of members leaving the Fund is greater than expected then this will typically lead to a slight improvement in the funding level.

Partners' and Dependants' Proportions

It has been assumed that the proportions of members below will on death give rise to a dependant's pension (spouse's and partner's), and that spouses/partners of female (male) members are three years older (younger), on average than the member.

	% spouse/partner	% spouse/partner
Age	Males	Females
25	45	57
35	73	75
45	76	75
55	78	75
65	80	69



If more members than assumed have partners then this will lead to an increase in the number of dependants pensions coming into payment over and above that expected. This would lead to a worsening of the funding level.

ASSUMPTIONS USED TO CALCULATE THE PRIMARY CONTRIBUTION RATE

The cost of future accrual (the Primary Contribution Rate) has been calculated using the same actuarial assumptions as used to calculate the solvency funding target and recovery plan as set out above.

B

SUMMARY MEMBERSHIP DATA

The membership data is summarised in the table, with figures at the previous valuation shown for comparison.

Data in relation to members of the Fund were supplied by the Administering Authority. The accuracy of the data provided has been relied on. While reasonableness checks on the data have been carried out, they do not guarantee the completeness or the accuracy of the data. Consequently Mercer does not accept any liability in respect of its advice where it has relied on data that is incomplete or inaccurate.

	31 March 2017	31 March 2014
Active members		
Number	61	84
Total Post 2015 Pensionable Salaries (£000s p.a.)	1,695	2,208
Average Post 2015 Pensionable Salary (£ p.a.)	27,288	26,284
Average age (pension weighted)	55.7	54.6

Deferred pensioners		
Number	132	156
Total deferred pensions revalued to valuation date (£000s p.a.)	391	496
Average deferred pension (£ p.a.)	2,964	3,178
Average age (pension weighted)	53.9	52.8

Pensioners and Dependants		
Number	424	403
Total pensions payable (£000s p.a.)	3,078	2,891
Average pension (£ p.a.)	7,259	7,174
Average age (pension weighted)	70.4	69.8

C

ASSETS

The market value of the total Fund's assets was £100.0m on the valuation date.

The Administering Authority's investment strategy at the valuation date is to proportion the Fund's assets by asset class as shown in the table below and they are managed by Schroders under a fiduciary mandate. This is subject to change as part of an ongoing review of funding strategy. The actual distribution of assets will vary over time due to changes in financial markets and also when the de-risking triggers are hit in the flightpath de-risking strategy.

	INVESTMENT STRATEGY*
	%
Alternatives	14
Cash & Matching Assets	30
Equities	29
Credit and Government Debt	27
Total	100

*Based on latest information received from Schroders

The Administering Authority also holds additional voluntary contributions (AVCs) which are separately invested. These assets have been excluded from the market value shown as they exactly match the value of the benefits they cover.

The details of the assets at the valuation date and the financial transactions during the inter-valuation period have been obtained from the audited accounts for the Fund.

D

SCHEME BENEFITS

The benefits valued within our calculations are those in force at the effective date of the valuation. Full details of these can be found in the Local Government Pension Scheme (Scotland) Regulations 2014 (as amended):

The Local Government Pension Scheme (Scotland) Regulations 2014
(<http://www.scotlgpsregs.org/schemeregs/lgpsregs2014/timeline.php>)

The Local Government Pension Scheme (Scotland) (Transitional Provisions, Savings and Amendment) Regulations 2014
(<http://scotlgpsregs.org/schemeregs/tpregs2014.php>)

The direction by the Treasury dated 5 April 2016 under Section 59A of the Social Security Pensions Act 1975 concerning the “interim solution” for GMP indexation until 5 December 2018.
(<https://www.gov.uk/government/consultations/indexation-and-equalisation-of-gmp-in-public-service-pension-schemes>)

Please note that we have not made any allowance for the extension of the “interim solution” to 6 April 2021. The impact would be marginal and it would not affect the contributions that have been agreed with the Employer. The impact of this change will be allowed for at the 2020 actuarial valuation.

We have made no allowance for other changes which may be introduced in the future.

The Fund is also responsible for paying and, where appropriate, recharging to employers the benefits arising from the award of compensatory added years (CAY) of service on premature retirement. Unless these CAY benefits have been converted into “funded” benefits, they are normally recharged to the relevant employer (together with associated pension increases), and so are excluded from the valuation.

The benefits that will emerge from money purchase AVCs paid by members, and SCAVCs paid by employers, and the corresponding invested assets in respect of these AVCs and SCAVCs, have been excluded from the valuation.

The contributions certified in the Rates and Adjustments Certificate allow for the liabilities recharged on a £ for £ basis to the North East Scotland Pension Fund in relation to pension increases payable on benefits which accrued before 26 October 1986 within the Fund for members of First Aberdeen Limited.

UK and European law requires pension schemes to provide equal benefits to men and women in respect of service after 17 May 1990 (the date of the “Barber” judgement) and this includes providing equal benefits accrued from that date to reflect the differences in GMPs. There is no consensus or legislative guidance as to what adjustments have to be made to scheme benefits to correct these inequalities for ongoing schemes (i.e. for schemes other than those which are in the Pension Protection Fund). The valuation makes no allowance for removal of these inequalities. It is consequently possible that additional funding will be required for equalisation once the law has

been clarified. It is recommended that the Administering Authority seek further professional advice if it is concerned about this issue.

E

SUMMARY OF INCOME AND EXPENDITURE

INCOME	YEAR ENDING 31 MARCH			Total £000s
	2015 £000s	2016 £000s	2017 £000s	
Fund at beginning of year	79,838	89,640	86,243	79,838
Employee Contributions	134	127	115	376
Employer Contributions	2,219	2,176	2,109	6,504
Transfer Values received	0	0	0	0
Investment income	1,698	510	1,505	3,713
Other income	311	322	320	953
Change in market value of investments	8,866	(2,560)	13,949	20,255

EXPENDITURE	YEAR ENDING 31 MARCH			Total £000s
	2015 £000s	2016 £000s	2017 £000s	
Pensions for members/ spouses/partners/dependants	2,921	2,998	3,083	9,002
Retiring allowances and death gratuities	410	746	882	2,038
Withdrawals	1	0	0	1
Transfer Values paid	0	0	65	65
Investment and administration expenses	94	228	245	567
Fund at end of year	89,640	86,243	99,966	99,966

F

ANALYSIS OF MEMBERSHIP EXPERIENCE

The analysis below compares the actual experience over the 3 year period with the assumptions used for the 2017 valuation.

	ACTUAL	EXPECTED	%
Ill Health Retirements	0	3	0%
Withdrawals	2	1	200%
Pensioner Deaths (lives)	41	4	1025%
Pensioner Deaths (£000 p.a. of pension)	200	15	1333%

Note that actual withdrawals can include members moving to another LGPS Fund, bulk transfers and also transfers under the special transfer club terms.

G

RATES AND ADJUSTMENTS CERTIFICATE ISSUED IN ACCORDANCE WITH REGULATION 60

NAME OF FUND

Aberdeen City Council Transport Fund

The primary and secondary contributions are as set out below. In the event that the funding level exceeds 105% as assessed using the valuation methodology in this report, the contributions payable will be reviewed and potentially reduced in order to avoid a 'trapped surplus' within the Fund. For the purposes of the Regulations, the minimum total contributions due are therefore nil (a primary rate of 58.5% of pensionable pay and a secondary rate of -58.5% of pensionable pay).

The contributions will be considered periodically at the discretion of the Administering Authority based on the advice of the Fund Actuary taking into account the covenant of the sponsoring employer and level of the asset-liability risks remaining at that time. Until such consideration takes place the initial primary and secondary contributions will be at the rates set out below:

PRIMARY CONTRIBUTION RATE

I hereby certify that, in my opinion, the initial primary rate of the Employer's contribution for each of the three years beginning 1 April 2018 is 58.5% of pensionable pay.

SECONDARY CONTRIBUTION RATE

I hereby certify that, in my opinion, the initial secondary rate of the Employer's contribution for each of the three years beginning 1 April 2018 is as follows:

2018/19	-25.5% of pensionable pay plus £1.5m
2019/20	-25.5% of pensionable pay plus £1.5m
2020/21	-25.5% of pensionable pay plus £1.5m

CONTRIBUTION AMOUNTS PAYABLE

The total contribution payable for the Employer is the total of the primary and secondary rates as detailed in the attached schedule. Contributions will be paid monthly in arrears with each payment normally being due by the 19th of the following month unless otherwise noted in the schedule.

FURTHER ADJUSTMENTS

A further individual adjustment shall be applied in respect of each non-ill health early retirement occurring in the period of three years covered by this certificate. This further individual adjustment will be calculated in accordance with methods agreed from time to time between the Fund's Actuary and the Administering Authority.

The contributions set out in the attached schedule represent the contributions which may be paid by the Employer in total over the 3 years covered by the certificate. Additional contributions or a different pattern of contributions may be paid if requested by the Employer at the sole discretion of the Administering Authority as agreed with the Actuary.

The Employer contributions may be varied as agreed by the Actuary and Administering Authority to reflect any changes in contribution requirements as a result of any benefit costs being insured with a third party or parties including where the third party or parties participate in the Fund.

The Administering Authority and Employer with advice from the Fund's Actuary can agree that contributions payable under this certificate can be sourced under an alternative financing arrangement which provides the Fund with equivalent cash contributions.

REGULATION 60(8)

No allowance for non-ill health early retirements has been made in determining the results of the valuation, on the basis that the costs arising will be met by additional contributions. Allowance for ill health retirements has been included the Employer's contribution rate, on the basis of the method and assumptions set out in the report.

Signature:



Signature:



Name:

Paul Middleman

Name:

Laura Evans

Qualification:

Fellow of the Institute
and Faculty of Actuaries

Qualification:

Fellow of the Institute and Faculty
of Actuaries

Date of signing:

28 March 2018

H

SCHEDULE TO THE RATES AND ADJUSTMENTS CERTIFICATE DATED 31 MARCH 2018

The primary and secondary contributions are as set out below. In the event that the funding level exceeds 105% as assessed using the valuation methodology in this report, the contributions payable will be reviewed and potentially reduced in order to avoid a 'trapped surplus' within the Fund. For the purposes of the Regulations, the minimum total contributions due are therefore nil (a primary rate of 58.5% of pensionable pay and a secondary rate of -58.5% of pensionable pay).

The contributions will be considered periodically at the discretion of the Administering Authority based on the advice of the Fund Actuary taking into account the covenant of the sponsoring employer and level of the asset-liability risks remaining at that time. Until such consideration takes place the initial primary and secondary contributions will be at the rates set out below:

Employer	Primary rate 2018/19 to 2020/21	Initial Secondary rates			Total Contribution rates		
		2018/19	2019/20	2020/21	2018/19	2019/20	2020/21
First Aberdeen Ltd	58.5%	-25.5% plus £1.5m	-25.5% plus £1.5m	-25.5% plus £1.5m	33.0% plus £1.5m	33.0% plus £1.5m	33.0% plus £1.5m

Notes:

1. The percentages shown are percentages of pensionable pay and apply to all members, including those who are members under the 50:50 option under the LGPS (Scotland) from 1 April 2015.
2. Separate payments will be made from the North East Scotland Pension Fund to the Aberdeen City Council Transport Fund in respect of pension increases payable to retired members relating to benefits accrued prior to 26 October 1986. These recharge amounts will be calculated by the Fund separately.

I

GLOSSARY

Actuarial Valuation: an investigation by an actuary into the ability of the Fund to meet its liabilities. For the LGPS the Fund Actuary will assess the funding level of the participating employer and agree contribution rates with the administering authority to fund the cost of new benefits and make good any existing deficits as set out in the separate Funding Strategy Statement. The asset value is based on market values at the valuation date.

Administering Authority: the council with a statutory responsibility for running the Fund and that is responsible for all aspects of its management and operation.

Benchmark: a measure against which fund performance is to be judged.

Best Estimate Assumption: an assumption where the outcome has a 50/50 chance of being achieved.

Bonds: loans made to an issuer (often a government or a company) which undertakes to repay the loan at an agreed later date. The term refers generically to corporate bonds or government bonds (gilts).

Buy-in: A buy-in policy is a bulk annuity policy held as a scheme investment, which serves to provide payments that exactly match those due to the members which it covers. Some schemes seek to remove risk in relation to a certain group of members through this type of policy, usually just the pensioner membership.

Career Average Revalued Earnings Scheme (CARE): with effect from 1 April 2015, benefits accrued by members in the LGPS take the form of CARE benefits. Every year members will accrue a pension benefit equivalent to 1/49th of their pensionable pay in that year. Each annual pension accrued receives inflationary increases (in line with the annual change in the Consumer Prices Index) over the period to retirement.

Covenant: the assessed financial strength of the employer. A strong covenant indicates a greater ability (and willingness) to pay for pension obligations in the long run. A weaker covenant means that it appears that the employer may have difficulties meeting its pension obligations in full over the longer term or affordability constraints in the short term.

CPI: acronym standing for “Consumer Prices Index”. CPI is a measure of inflation with a basket of goods that is assessed on an annual basis. The reference goods and services differ from those of RPI. These goods are expected to provide lower, less volatile inflation increases. Pension increases in the LGPS are linked to the annual change in CPI.

Deficit: the extent to which the value of the Fund’s past service liabilities exceeds the value of the Fund’s assets. This relates to assets and liabilities built up to date, and ignores the future build-up of pension (which in effect is assumed to be met by future contributions).

Deficit recovery period: the target length of time over which the current deficit is intended to be paid off. A shorter period will give rise to a higher annual contribution, and vice versa.

Discount Rate: the rate of interest used to convert a cash amount e.g. future benefit payments occurring in the future to a present value.

Employing bodies: any organisation that participates in the LGPS, including admission bodies and Fund employers.

Employer's Future Service Contribution Rate: the contribution rate payable by the employer, expressed as a % of pensionable pay, as being sufficient to meet the cost of new benefits being accrued by active members in the future. The cost will be net of employee contributions and will include an allowance for the expected level of administrative expenses.

Equities: shares in a company which are bought and sold on a stock exchange.

'Flight path' strategy: Investment Strategy framework agreed by the Administering Authority based on advice from Schroders. This covers short and long term funding goals and risk considerations.

Funding or solvency Level: the ratio of the value of the Fund's assets and the value of the Fund's liabilities expressed as a percentage.

Funding Strategy Statement: this is a key governance document that outlines how the administering authority will manage employer's contributions and risks to the Fund.

Government Actuary's Department (GAD): the GAD is responsible for providing actuarial advice to public sector clients. GAD is a non-ministerial department of HM Treasury.

Guarantee / guarantor: a formal promise by a third party (the guarantor) that it will meet any pension obligations not met by the employer. The presence of a guarantor will mean, for instance, that the Fund can consider the employer's covenant to be as strong as its guarantor's.

Hedging: a strategy that aims to reduce funding volatility. This is achieved by investing in assets that capture levels of yields based on agreed trigger levels so the change in assets mimics the change in liabilities.

Investment Strategy: the long-term distribution of assets among various asset classes that takes into account the Fund's objectives and attitude to risk.

LGPS: the Local Government Pension Scheme, a public sector pension arrangement put in place via Government Regulations, for workers in local government. These Regulations also dictate eligibility, members' contribution rates, benefit calculations and certain governance requirements.

Liabilities: the actuarially calculated present value of all benefit entitlements i.e. Fund cashflows of all members of the Fund, built up to date or in the future. The liabilities in relation to the benefit entitlements earned up to the valuation date are compared with the present market value of Fund assets to derive the deficit and funding/solvency level. Liabilities can be assessed on different set of actuarial assumptions depending on the purpose of the valuation.

Maturity: a general term to describe a Fund (or an employer's position within a Fund) where the members are closer to retirement (or more of them already retired) and the investment time horizon is shorter. This has implications for investment strategy and, consequently, funding strategy.

Members: the individuals who have built up (and may still be building up) entitlement in the Fund. They are divided into actives (current employee members), deferreds (ex-employees who have not yet retired) and pensioners (ex-employees who have now retired, and dependants of deceased ex-employees).

Minimum Risk Basis: an approach where the discount rate used to assess the liabilities is determined based on the market yields of Government bond investments based on the appropriate duration of the liabilities being assessed.

Percentiles: relative ranking (in hundredths) of a particular range. For example, in terms of expected returns a percentile ranking of 75 indicates that in 25% of cases, the return achieved would be greater than the figure, and in 75% cases the return would be lower.

Present Value: the value of projected benefit payments, discounted back to the valuation date.

Primary rate: the contribution rate required to meet the cost of future accrual of benefits, ignoring any past service surplus or deficit but allowing for any employer-specific circumstances, such as its membership profile, the funding strategy adopted for that employer, the actuarial method used and/or the employer's covenant.

Profile: the profile of an employer's membership or liability reflects various measurements of that employer's members, i.e. current and former employees. This includes: the proportions which are active, deferred or pensioner; the average ages of each category; the varying salary or pension levels; the lengths of service of active members vs their salary levels, etc.

Prudent Assumption: an assumption where the outcome has a greater than 50/50 chance of being achieved i.e. the outcome is more likely to be overstated than understated. Legislation and Guidance requires the assumptions adopted for an actuarial valuation to be prudent.

Rates and Adjustments Certificate: a formal document required by the LGPS (Scotland) Regulations, which must be updated at least every three years at the conclusion of the formal valuation. This is completed by the actuary and confirms the contributions to be paid by each employer (or pool of employers) in the Fund for the three year period until the next valuation is completed.

Recovery Plan: a strategy by which an employer will make up a funding deficit or run off surplus over a specified period of time ("the recovery period"), as set out in the Funding Strategy Statement.

Secondary rate: the adjustment to the Primary rate to arrive at the total contribution each employer is required to pay. It is essentially the additional contribution (or reduction in contributions) resulting from any deficit (or surplus) attributable to the employer within the Fund.

Section 13 Valuation: in accordance with Section 13 of the Public Service Pensions Act 2014, the Government Actuary's Department (GAD) have been commissioned to advise the Scottish Public Pensions Agency (SPPA) in connection with reviewing the 2017 LGPS actuarial valuations. All LGPS Funds therefore will be assessed on a standardised set of assumptions as part of this process.

Solvency Funding Target: an assessment of the present value of benefits to be paid in the future. The desired funding target is to achieve a solvency level of a 100% i.e. assets equal to the accrued liabilities at the valuation date assessed on the ongoing concern basis.

Valuation funding basis: the financial and demographic assumptions used to determine the employer's contribution requirements. The relevant discount rate used for valuing the present value of liabilities is consistent with an expected rate of return of the Fund's investments. This includes an expected out-performance over gilts in the long-term from other asset classes, held by the Fund.

50/50 Scheme: in the LGPS, active members are given the option of accruing a lower personal benefit in the 50/50 Scheme, in return for paying a lower level of contribution.

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