

# Pensions Committee

2.30 p.m., Wednesday, 17 December 2014

## Scottish Homes Pension Fund – 2014 Actuarial Valuation & Investment Strategy

Item number	5.8
Report number	
Executive/routine	
Wards	All

### Executive summary

---

This paper presents the results of the 2014 actuarial valuation for the Scottish Homes Pension Fund. The funding level at 31 March 2014 was 88.8%, increased from 86.3% from the 2011 actuarial valuation.

The funding level remains below the target funding level (91.5% at March 2014) as prescribed in the funding agreement with Scottish Government. Therefore, contributions of £575,000 p.a. will be payable from April 2015 from the Scottish Government, in addition to payment of administration costs of £100,000 p.a.

Committee is also asked to approve a change to the investment strategy and the equity allocation of the Fund, with corresponding change in the bond allocation, dependent on the funding level. This is pending full review of strategy in 2015.

### Links

---

#### Coalition pledges

#### Council outcomes

CO26 – The Council engages with stakeholders and works in partnerships to improve services and deliver agreed objectives.

#### Single Outcome Agreement

## Scottish Homes Pension Fund – 2014 Actuarial Valuation & Investment Strategy

### Recommendations

---

- 1.1 Committee is requested to:
- Approve the 2014 actuarial valuation for the Scottish Homes Pension Fund;
  - Note that the funding level of the Scottish Homes Pension Fund at 31 March 2014 was 88.8% and Scottish Government will pay contributions of £675,000 per annum to the fund for the three years starting April 2015;
  - Approve the revised investment strategy for the Fund as shown in paragraph 3.12.

### Background

---

- 2.1 The City of Edinburgh Council took over the administration of the deferred and pensioner liabilities of Scottish Homes in July 2005. An agreement between the Scottish Government and the City of Edinburgh Council ('the Guarantee') was put in place in June 2005. The Scottish Government acts as the 'Guarantor' for the Fund liabilities.
- 2.2 The Scottish Homes Pension Fund is required by law to undertake an actuarial valuation every three years. The actuarial valuation of a pension fund has 3 main purposes:
- To assess whether the funding strategy and assumptions are appropriate;
  - To assess the financial health of the pension fund;
  - To set the future rates of contributions payable by the employer / guarantor.
- 2.3 The funding strategy for the Scottish Homes Pension Fund and the valuation methodology is set out in the Guarantee. The strategy assesses the funding level using prudent financial assumptions and sets target funding levels for the Fund at each actuarial valuation. It also sets out the conditions which will trigger contributions to be payable by the Scottish Government.

## Main report

---

### 2014 Actuarial Valuation

- 3.1 The 2014 Actuarial Valuation report is provided in Appendix 1.
- 3.2 The table below summarises the financial position of the Fund at 31 March 2014.

<b>Past Service Position</b>	<b>2011</b>	<b>2014</b>
Past Service Liabilities, £M	144.1	153.5
Market Value of Assets, £M	124.3	136.3
Surplus / (Deficit), £M	(19.8)	(17.1)
<b>Actual Funding Level</b>	<b>86.3%</b>	<b>88.8%</b>
<b>Target Funding Level</b>	<b>89.5%</b>	<b>91.5%</b>

- 3.3 The Target Funding Levels (TFLs), as set out in the Guarantee, are 89.5% and 91.5% at 31 March 2011 and 2014 respectively. The Actual Funding Level (AFL) is therefore lower than the TFL at both this and the previous valuation date. This triggers a contribution of £575,000 p.a. from the Scottish Government, as Guarantor, under the terms of the Guarantee payable from April 2015. In addition, the Guarantor will pay £100,000 p.a. towards the cost of administration expenses. The Scottish Government will therefore pay a minimum of £675,000 p.a. for the years 1 April 2015 to 31 March 2018.

### Investment Strategy

- 3.4 Pensions Committee approved the Investment Strategy 2012-17 for the Scottish Homes Pension Fund in October 2012. The funding agreement with the Scottish Government and the investment strategy are designed to reduce investment risk as the Fund is closed to new members and the liabilities will mature over the time.
- 3.5 As reported to Committee in June 2014, over the financial year 2013/14 the actual funding level moved closer to the target funding level and so the move to the long term strategy was accelerated. The current investment strategy is in line with the long term strategy which is shown in the table below.

<b>Asset Class</b>	<b>Current &amp; Long Term Strategy Allocation 2012-2017 %</b>
Equities	30
Bonds	65
Property	5
Cash	0
<b>TOTAL</b>	<b>100</b>

- 3.6 Further work to reduce the risk within the Fund's equities was put on hold pending the review of the funding agreement with the Scottish Government.

- 3.7 Discussions regarding potential changes to the funding agreement have been held with the Scottish Government over recent months with the assistance of the fund's investment advisers. Options to change the funding approach to one where contributions would be determined by fund cashflows, rather than funding level, have been explored.
- 3.8 However, the Scottish Government would prefer that the 2014 actuarial valuation and contributions for the 3 years starting April 2015 are determined in accordance with the existing Guarantee. However, they would like to explore funding options further ahead of the 2017 actuarial valuation. Updates to the Committee will be provided in due course if this work progresses.
- 3.9 The Guarantee provides guidance on the investment strategy for the Fund including the expectation that the allocation to equities is reduced over time and the desire of the Scottish Government to 'lock away any surpluses that may occur over time by accelerating the transfer into bonds'.
- 3.10 The Actuary is currently in the process of updating the funding level estimate based on investment market movements since 31 March 2014. Internal estimates indicate that the funding level has improved further.
- 3.11 Work now is underway with the Investment Strategy Panel to review the investment strategy for the Fund within the constraints of the existing funding Guarantee.
- 3.12 Pending this review, Committee is requested to approve reductions in the equity allocation of the Fund, with corresponding increases in the bond allocation, dependent on the funding level as follows:

	<b>Equity Allocation %</b>	<b>Funding level</b>	<b>Note [1]</b>
	35	89.5%	2011 TFL
Current	30	91.5%	2014 TFL
	25	93.0%	2017 TFL
	20	94.5%	2020 TFL
	15	95.5%	2023 TFL
	10	96.5%	2026 TFL

[1] Target Funding Level as per the Guarantee

- 3.13 The intention is to continue to monitor the funding level and adjust the level of equities in the Fund if target funding level(s) are achieved. For example if the funding level increased to 94.5%, the equity allocation would be reduced to 20%. If the funding level fell to 89.5%, the equity allocation would be increased to 35%.
- 3.14 The review of the investment strategy for the Fund will be reported to Committee in the first half of 2015.

## Measures of success

---

- 4.1 The Guarantee agreement with the Scottish Government sets out the target funding levels for the Scottish Homes Pension Fund every 3 years until 2044. Actual funding levels are measured against the target funding levels on a regular basis.

## Financial impact

---

- 5.1 The funding strategy, together with the Guarantee from the Scottish Government, should ensure that the Fund has sufficient assets in the long term. The results of the actuarial valuation have a financial impact on the Scottish Government as guarantor. The actuarial valuation sets the contribution rates payable by the Scottish Government over the next 3 years.

## Risk, policy, compliance and governance impact

---

- 6.1 The investment strategy of the pension fund is one of the main determinants of risk, in terms of volatility of funding level and contributions payable by the Scottish Government. The proposed change to the investment strategy seeks to reduce this risk as required in the Guarantee with the Scottish Government.

## Equalities impact

---

- 7.1 There are no adverse equalities impacts arising from this report.

## Sustainability impact

---

- 8.1 There are no adverse sustainability impacts arising from this report.

## Consultation and engagement

---

- 9.1 The Scottish Government has been consulted during the actuarial valuation process.

## Background reading / external references

---

None.

## Alastair Maclean

Director of Corporate Governance

Contact: Clare Scott, Investment & Pensions Service Manager

E-mail: [clare.scott@edinburgh.gov.uk](mailto:clare.scott@edinburgh.gov.uk) | Tel: 0131 469 3865

## Links

---

### Coalition pledges

**Council outcomes** CO26 – The Council engages with stakeholders and works in partnerships to improve services and deliver agreed objectives.

### Single Outcome Agreement

**Appendices** Appendix 1 – 2014 Actuarial Valuation Report for Scottish Homes Pension Fund

Hymans Robertson LLP has carried out an actuarial valuation of the Scottish Homes Pension Fund ("the Fund") as at 31 March 2014, details of which are set out in the report dated 4 December 2014 ("the Report"), addressed to City of Edinburgh Council ("the Client"). The Report was prepared for the sole use and benefit of our Client and not for any other party; and Hymans Robertson LLP makes no representation or warranties to any third party as to the accuracy or completeness of the Report.

The Report was not prepared for any third party and it will not address the particular interests or concerns of any such third party. The Report is intended to advise our Client on the past service funding position of the Fund at 31 March 2014 and employer contribution rates from April 2015, and should not be considered a substitute for specific advice in relation to other individual circumstances.

As this Report has not been prepared for a third party, no reliance by any party will be placed on the Report. It follows that there is no duty or liability by Hymans Robertson LLP (or its members, partners, officers, employees and agents) to any party other than the named Client. Hymans Robertson LLP therefore disclaims all liability and responsibility arising from any reliance on or use of the Report by any person having access to the Report or by anyone who may be informed of the contents of the Report.

Hymans Robertson LLP is the owner of all intellectual property rights in the Report and the Report is protected by copyright laws and treaties around the world. All rights are reserved.

The Report must not be used for any commercial purposes unless Hymans Robertson LLP agrees in advance.



# Scottish Homes Pension Fund 2014 Actuarial Valuation Report

HYMANS  ROBERTSON

# Contents

	PAGE
1 Executive summary	1
2 Introduction	2
3 Assumptions	3
4 Results	6
5 Contributions payable by the Guarantor	8
6 Risk assessment	9
7 Related issues	12
8 Reliances and limitations	13
Appendix A: About the pension fund	14
Appendix B: Summary of the Fund's benefits	15
Appendix C: About the valuation	17
Appendix D: Data	18
Appendix E: Assumptions	20
Appendix F: Rates and adjustments certificate	22
Statement to the Rates and Adjustments Certificate	23



## 1 Executive summary



Richard Warden  
Partner and Actuary



Steven Scott  
Actuary

We have carried out an actuarial valuation of the Scottish Homes Pension Fund (“the Fund”) as at 31 March 2014.

The Scottish Government (previously known as the Scottish Executive) acts as the ‘Guarantor’ for the Fund liabilities. The valuation of these mature liabilities uses more prudent assumptions than those applied to other employers in the Lothian Pension Fund, as set out in the agreed Scottish Executive Guarantee dated June 2005. The results are presented in this report and summarised below.

### Funding position

The table below summarises the financial position of the Fund at 31 March 2011 and 31 March 2014 in respect of benefits earned by members up to this date.

	31 March 2011 (£m)	31 March 2014 (£m)
<b>Past Service Position</b>		
Past Service Liabilities	144.1	153.5
Market Value of Assets	124.3	136.3
Surplus / (Deficit)	(19.8)	(17.1)
<b>Funding Level</b>	<b>86.3%</b>	<b>88.8%</b>

The Actual Funding Level (AFL) has improved to 88.8% since the previous valuation at 31 March 2011. This corresponds to a deficit of £17.1m at 31 March 2014.

The Target Funding Level (TFL), as set out in the Guarantee paper, is 91.5% at 31 March 2014. The AFL is therefore lower than the TFL at both this and the previous valuation date. This triggers a contribution of £575,000 p.a. from the Scottish Government, as Guarantor, under the terms of the Guarantee payable from April 2015. In addition, the Guarantor will pay £100,000 p.a. towards the cost of administration expenses.



## 2 Introduction

### Purpose

We have carried out an actuarial valuation of the Scottish Homes Pension Fund (“the Fund”) as at 31 March 2014. This is our report to the City of Edinburgh Council (‘the Administering Authority’) on the results of the valuation.

The deferred pensioners and pensioners of the Scottish Homes Pension Fund were transferred to the City of Edinburgh Council prior to the wind-up of the Scottish Homes Residuary Body. The City of Edinburgh Council assumed the management of its assets and liabilities from 1 July 2005.

The Scottish Government (formerly the Scottish Executive) acts as the Guarantor for the transferred liabilities. The Guarantor’s intention is that over time the transferred assets together with any additional contributions required should be sufficient to fund the former Scottish Homes Pension Fund liabilities. However, it was agreed in-principle that the investment strategy should move towards having less exposure to volatile asset classes (e.g. equities) during the liability run-off. The liability run-off is expected to take a number of decades to complete, but a substantial part of the liability should be discharged over the first decade.

This valuation report complies with all of the relevant regulations and professional standards, as set out in **section 8**.

The figures in this report are based on our understanding of the benefit structure of the LGPS as at 31 March 2014, details of which are provided in **Appendix B**.

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. This data is summarised in **Appendix D**.

As part of the valuation, assumptions must be made which are discussed in **section 3** as well as in **Appendix E**. Details of our valuation approach is covered in **Appendix C**.

The valuation results are then covered in the **section 4** with the required Guarantor contributions outlined in **section 5**.

We look at some of the risks the Fund faces in **section 6**

The valuation is just one aspect of the operation of the Fund, and related issues are covered in **section 7**.

In **Appendix F** we then set out the future contributions payable under the terms of the Guarantee paper.

### Component reports

This document is an “aggregate” report, i.e. it is the culmination of various “component” reports and discussions, in particular:

- The data report (mentioned in **section 8**);
- The Initial Results report (dated 6 August 2014 which outlined the preliminary assumption proposals and whole fund results);
- The formal agreement by the Administering Authority of the actuarial assumptions used in this document, as per the Administering Authority’s email dated 24 November 2014.
- The Operation of the Scottish Executive Guarantee paper dated 29 June 2005, confirming the approach to determining contributions payable to the Fund by the Scottish Government.

Note that not all of these documents may be in the public domain.



### 3 Assumptions

Assumptions must be made about the factors affecting the Fund's finances in the future. Broadly speaking, our assumptions fall into two categories – financial and demographic.

Demographic assumptions typically try to forecast **when** benefits will come into payment and what form these will take. For example, when members will retire (e.g. at their normal retirement age or earlier), how long they will then survive and whether a dependant's pension will be paid.

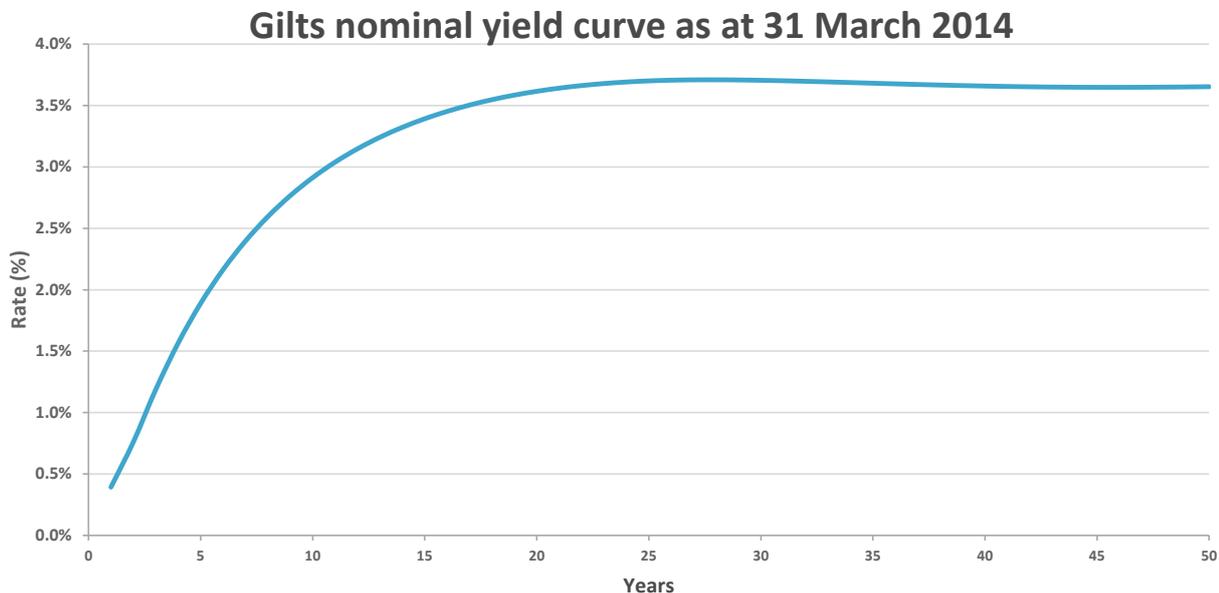
Financial assumptions typically try to anticipate the **size** of these benefits. For example, how members' pensions will increase over time. In addition, the financial assumptions also help us to estimate how much all these benefits will cost the Fund in today's money.

#### Financial assumptions

A summary of the main financial assumptions adopted for the valuation of members' benefits are shown below.

Assumption	Description
Price Inflation (CPI) (deferreds and pensioners)	Bank of England implied inflation (RPI) curve less 0.8% p.a
Discount rate (deferreds and pensioners)	Bank of England nominal yield curve

The chart below shows the nominal spot yields for a Government-backed loan (i.e. the yield to maturity of a zero coupon bond) as at 31 March 2014:

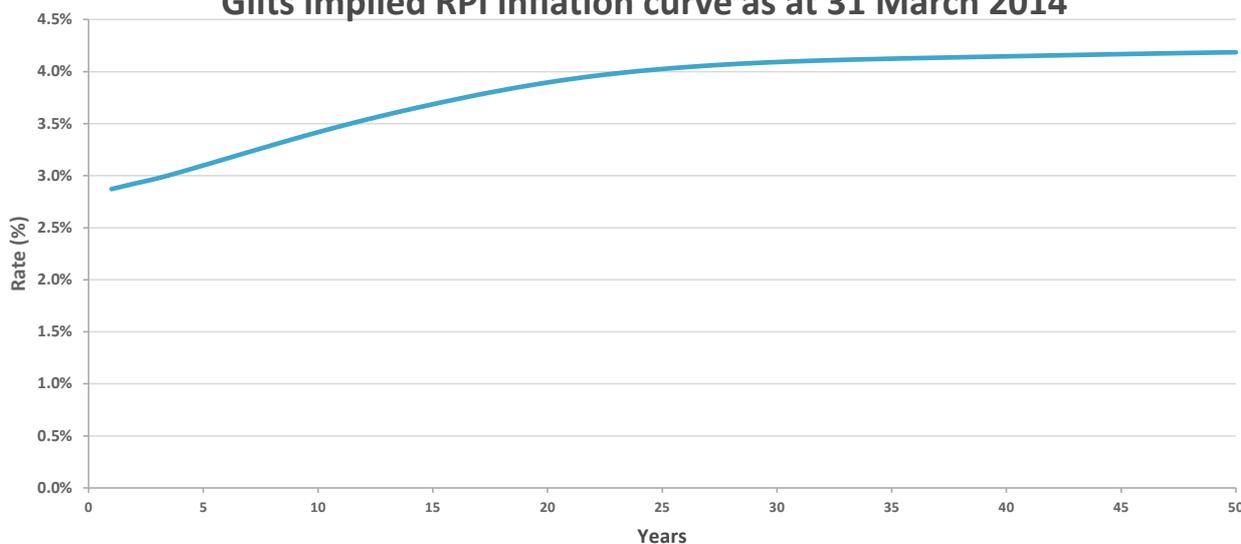


Source: Bank of England

The chart below shows the Bank of England implied inflation curve over a range of maturities at 31 March 2014. This is derived from the yields on both fixed and index linked gilts.



### Gilts implied RPI inflation curve as at 31 March 2014



Source: Bank of England

#### Discount rate

The valuation discount rate is in line with the Bank of England nominal yield curve. This means that each future cashflow has been discounted at an appropriate spot rate dependent on the expected timing of the cashflow. This approach differs from that taken in the previous valuation in 2011, where a single yield was chosen separately for deferred and pensioner liabilities in order to approximate the broad term of the liabilities.

As per the previous valuation in 2011, there will be no allowance for anticipated out-performance from non Government bonds, equity assets, or property.

#### Price inflation / pension increases

At the previous valuation, we derived a single assumption for RPI from market data as the difference between the yield on long-dated fixed interest and index-linked government bonds. At this valuation, we have adopted the Bank of England implied inflation (RPI) curve to recognise differing expected inflation assumptions as different durations. We expect the average long term difference between RPI and CPI to be 0.8% p.a.. This is in line with the assumption used in 2011.

#### Demographic Assumptions

##### Longevity

The main demographic assumption to which the valuation results are most sensitive is that relating to the longevity of the Fund's members. For this valuation, we have adopted assumptions which give the following sample average future life expectancies for members:

Assumed life expectancy at age 65	Deferreds		Current Pensioners	
	Male	Female	Male	Female
2011 valuation - baseline	19.7	22.2	19.7	22.2
2011 valuation - improvements	23.0	25.7	21.1	23.9
2014 valuation - baseline	19.8	23.2	20.3	22.2
2014 valuation - improvements	26.8	28.6	24.5	25.4

Further details of the mortality assumptions adopted for this valuation can be found in **Appendix E**. Note that the figures deferred members assume that they are aged 45 at the valuation date.



### Other demographic assumptions

We are in the unique position of having a very large local authority data set from which to derive our other demographic assumptions. This year, as in previous years, we have made full use of this to analyse the trends and patterns that are present in the membership of local authority funds and tailor our assumptions to reflect LGPS experience.

Further details on these assumptions are set out in **Appendix E**.

### Further comments on the assumptions

#### Level of prudence

As required for Local Government Pension Scheme valuations, our approach to this valuation must include a degree of prudence. This has been achieved by assuming a discount rate in line with low risk UK government bonds. No allowance has been made for the Fund's riskier assets, which would expect to yield a higher return.

For the avoidance of doubt, we believe that all other proposed assumptions represent the "best estimate" of future experience. This effectively means that there is a 50% chance that future experience will be better or worse than the chosen assumption.

Taken as a whole, we believe that our proposed assumptions are more prudent than the best estimate. The assessed liability value on a "neutral" best estimate (not prudent) basis would perhaps be 15-20% lower than the figures shown here.



## 4 Results

### Funding level and deficit

In assessing the extent to which the past service funding objective was met at the valuation date, we have used the actuarial assumptions described in the previous section of this report and funding method described in **Appendix C**. The table below compares the value of the assets and liabilities at 31 March 2014. The 31 March 2011 results are also shown for reference.

The results are presented in the form of a “funding level”, this is the ratio of the market value of assets to the assessed cost of members’ past service benefits (“liabilities”).

Valuation Date	31 March 2011	31 March 2014
<b>Past Service Position</b>	<b>(£m)</b>	<b>(£m)</b>
Past Service Liabilities		
Deferred Pensioners	36.9	39.4
Pensioners	107.2	114.1
Total Liabilities	144.1	153.5
Market Value of Assets	124.3	136.3
<b>Surplus / (Deficit)</b>	<b>(19.8)</b>	<b>(17.1)</b>
<b>Funding Level</b>	<b>86.3%</b>	<b>88.8%</b>

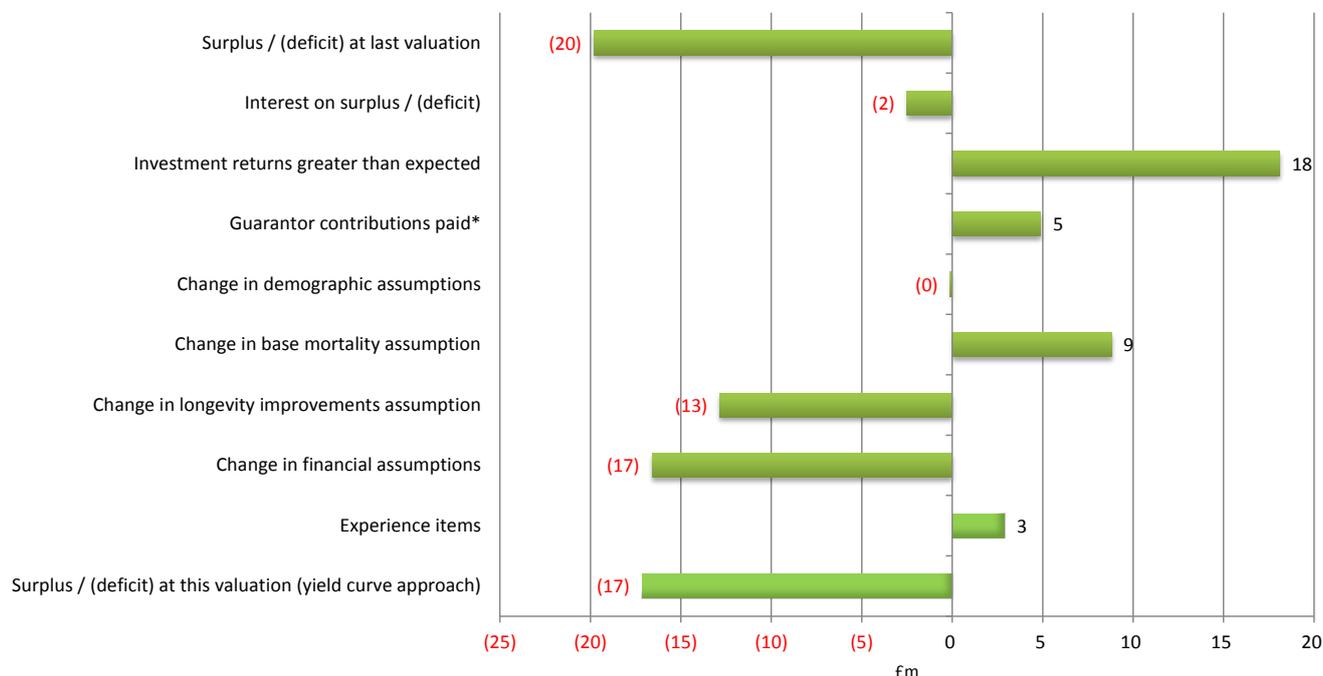
The Actual Funding Level (AFL) has improved to 88.8% since the previous valuation at 31 March 2011. This corresponds to a deficit of £17.1m at 31 March 2014.

The majority of members benefits increase in line with CPI. Only one element of pension, namely pre 1988 GMP, is fixed in nature (i.e. it does not increase in line with any inflation index). The liability in respect of pre 1988 GMP is equal to approximately 12% of the total liabilities.



### Summary of changes to the funding position

The chart below illustrates the various factors that have led to the deficit falling between 31 March 2011 and 31 March 2014.



\*includes estimated contributions paid in respect of CAY benefits

Further comments on these some of the items in this chart:

- There is an interest cost of £2m. This is broadly three years of compound interest at 4.30% p.a. (deferred liabilities) and 3.90% p.a. (pensioner liabilities) applied to the previous valuation deficit of £20m.
- Investment returns being higher than expected since 2011 led to a gain of £18m. This is roughly the difference between the actual and expected three-year return (roughly 13%) applied to the whole fund assets from the previous valuation of £124m, with a further allowance made for cashflows during the period.
- At the 2014 valuation, the Fund has adopted Club Vita baseline longevity for the first time and strengthened the future improvements assumption. The effect of this is an increase in the past service liabilities of c£4m, arising from the stronger future improvements assumption but partially offset by the effect of the Club Vita baseline assumption.
- The change in financial conditions between the previous valuation has led to a loss of £17m. This includes the effect of adopting yield curve assumptions for the first time.
- Experience items, such as changes in the membership data, have served to decrease the deficit at this valuation by around £3m.



## 5 Contributions payable by the Guarantor

### Contribution Rate

The Guarantee paper sets out how payments from the Guarantor should be determined. The calculation below sets out the contribution due from the Guarantor based on the funding position at 31 March 2014.

Assets (£m)	136.3
Past service liabilities (£m)	153.5
Actual Funding Level (AFL)	88.8%
Target Funding Level (TFL)	91.5%
Target assets (£m)	140.4
Shortfall (TFL – AFL) (£m)	4.1
Amortisation period (years)	8
5 to 10 years fixed interest bond yield	2.35%
Annuity	7.13
<b>Annual contribution payable from 1 April 2015</b>	<b>£575,000 p.a.</b>

In addition, the Guarantor will pay £100,000 p.a. towards the cost of ongoing administration expenses.



## 6 Risk assessment

The valuation results depend critically on the actuarial assumptions that are made about the future of the Fund. If all of the assumptions made at this valuation were exactly borne out in practice then the results presented in this document would represent the true cost of the Fund as it currently stands at 31 March 2014.

However, no one can predict the future with certainty and it is unlikely that future experience will exactly match all of our assumptions. The future therefore presents a variety of risks to the Fund and these should be considered as part of the valuation process. In particular:

- The main risks to the financial health of the Fund should be **identified**.
- Where possible, the financial significance of these risks should be **quantified**.
- Consideration should be given as to how these risks can then be **controlled** or **mitigated**.
- These risks should then be **monitored** to assess whether any mitigation is actually working.

This section investigates the potential implications of the actuarial assumptions not being borne out in practice.

Set out below is a brief assessment of the main risks and their effect on the valuation results, beginning with a look at the effect of changing the main assumptions and then focusing on the two most significant risks – namely investment risk and longevity risk.

### Sensitivity of valuation results to changes in assumptions

Broadly speaking, there are two particular risks that are generally of most interest to pension funds – the performance of the Fund's investments and improvements in life expectancy compared to our assumptions. A further analysis of both is given below.

#### Investment risk

As the assets of the Fund are taken at their market value, volatility in investment performance can have an immediate and tangible effect on the funding level and deficit. This is less relevant for the Fund because of the investment strategy in place, i.e. only 35% of the Fund's assets invested in riskier assets such as equities and equity-type investments (e.g. property). A rise or fall in the level of equity markets has a direct impact on the financial position of the Fund, which may seem obvious.

Less obvious is the effect of anticipated investment performance on the Fund's liabilities. Here it is the returns available on government bonds that are of crucial importance, as the discount rate that we use to place a value on the Fund's liabilities is based on gilt yields at the valuation date. As described earlier, the discount rate used to value the Fund's future benefit payments is based on the return on fixed interest gilts, whilst the benefits themselves are projected to increase in line with inflation. Therefore, the return available on index-linked gilts is a key factor in the valuation of the Fund's liabilities.

The table below shows how the funding level (top), deficit (middle) and total contribution rate (bottom) would vary if investment conditions at 31 March 2014 were different (based on the existing valuation approach). The level of the FTSE 100 Price index is taken as a suitable proxy for asset performance whilst the index-linked gilt yield is taken as a yardstick for the valuation of liabilities.



Index Linked Gilt Yield	0.20%	88% (17)	91% (14)	93% (10)
	0.00%	87% (21)	89% (17)	91% (14)
	-0.20%	85% (24)	87% (21)	89% (17)
		6098	6598	7098
<b>FTSE 100 Price Index</b>				

The shaded box contains the results for this valuation. Note that this does not take account of the performance of all asset classes held by the Fund (e.g. property, bonds, cash) but it does serve to highlight, in broad terms, the sensitivity of the valuation results to investment conditions at the valuation date.

Note that the scenarios illustrated above are by no means exhaustive. They should not be taken as the limit of how extreme future investment experience could be.

### Longevity risk

The valuation results are also very sensitive to unexpected changes in future longevity. All else being equal, if longevity improves in the future at a faster pace than allowed for in the valuation assumptions, the funding level will decline and the required Guarantor contribution will increase.

Recent medical advances, changes in lifestyle and a greater awareness of health-related matters have resulted in life expectancy amongst pension fund members improving in recent years at a faster pace than was originally foreseen. It is unknown whether and to what extent such improvements will continue in the future.

For the purposes of this valuation, we have selected assumptions that we believe make an appropriate allowance for future improvements in longevity, based on the actual experience of the Fund since the previous valuation.

The table below shows how the valuation results at 31 March 2014 are affected by adopting different longevity assumptions. See page 8 for further details.

Longevity assumption	Impact	
	Funding level	Deficit (£m)
2014 valuation assumption	89%	(17)
1 year extra	86%	(22)

Note that the table shows the effect of changes to each assumption in isolation. In reality, it is perfectly possible for the experience of the Fund to deviate from many of these assumptions between valuations and so the precise effect on the funding position is therefore more complex.



### Other risks to consider

The table below summarises the effect that changes in some of the other valuation assumptions and risk factors would have on the funding position. Note that these are probably unlikely to change in such a way that would rank them as amongst the highest risks facing the Fund and therefore the analysis is qualitative rather than quantitative.

Risk	Funding level impact
Price inflation higher than anticipated	Decreases
Members convert less pension to cash at retirement than assumed	Decreases
Changes to Regulations that make benefit package more favourable to members	Decreases (if changes affect past service)

### Managing the risks

Whilst there are certain things, such as the performance of investment markets or the life expectancy of members, that are not directly within the control of the pension fund, that does not mean that nothing can be done to understand them further and to mitigate their effect. Although these risks are difficult (or impossible) to eliminate, steps can be taken to manage them.

Ways in which some of these risks can be managed could be:

- Set aside a specific reserve to act as a cushion against adverse future experience by taking advantage of any surpluses against the TFL that arise (possibly by selecting a set of actuarial assumptions that are deliberately more prudent). For example, investment mismatch risk could be reduced over time through a gradual reduction in the percentage held in riskier assets. The Administering Authority actively monitors the AFL against the TFL on a regular basis to ensure that this happens.
- Carry out a bespoke analysis of the longevity of Fund members and monitor how this changes over time, so that the longevity assumptions at the valuation provide as close a fit as possible to the particular experience of the Fund. This is effectively what Club Vita does.

We would be delighted to set out in more detail the risks that affect the Fund and discuss with you possible strategies for managing them.



## 7 Related issues

The Fund's valuation operates within a broader framework, and this document should therefore be considered alongside the following:

- Operation of Scottish Executive Guarantee paper, confirming the approach to determining contributions payable to the Fund by the Scottish Government
- the Statement of Investment Principles (e.g. the discount rate must be consistent with the Fund's asset strategy);
- the general governance of the Fund, such as meetings of the Pensions Committee, decisions delegated to officers, the Fund's business plan, etc; and
- the Fund's risk register.

### Further recommendations

#### Valuation frequency

Under the provisions of the LGPS regulations, the next formal valuation of the Fund is due to be carried out as at 31 March 2017. In light of the uncertainty of future financial conditions, we recommend that the financial position of the Fund is monitored by means of interim funding reviews in the period up to this next formal valuation. This will give early warning of changes to funding positions and possible contribution rate changes.

#### Investment strategy and risk management

We recommend that the Administering Authority continues to regularly review its investment strategy and ongoing risk management programme.



## 8 Reliances and limitations

### Scope

This document has been requested by and is provided to the City of Edinburgh Council in its capacity as Administering Authority to the Scottish Homes Pension Fund. It has been prepared by Hymans Robertson LLP to fulfil the statutory obligations in accordance with regulation 32 of the Local Government Pension Scheme (Scotland) Regulations (2008). None of the figures should be used for accounting purposes (e.g. under FRS17 or IAS19) or for any other purpose.

This document should not be released or otherwise disclosed to any third party without our prior written consent, in which case it should be released in its entirety. Hymans Robertson LLP accepts no liability to any other party unless we have expressly accepted such liability.

The results of the valuation are dependent on the quality of the data provided to us by the Administering Authority for the specific purpose of this valuation. We have previously issued a separate report confirming that the data provided is fit for the purposes of this valuation and have commented on the quality of the data provided. The data used in our calculations is as per our report of 23 July 2014.

### Actuarial Standards

The following Technical Actuarial Standards<sup>1</sup> are applicable in relation to this report and have been complied with where material:

- TAS R – Reporting;
- TAS D – Data;
- TAS M – Modelling; and
- Pensions TAS.

Richard Warden

Fellow of the Institute and Faculty of Actuaries

4 December 2014

Steven Scott

Fellow of the Institute and Faculty of Actuaries

4 December 2014

<sup>1</sup> Technical Actuarial Standards (TASs) are issued by the Financial Reporting Council (FRC) and set standards for certain items of actuarial work, including the information and advice contained in this report.



## Appendix A: About the pension fund

The purpose of the Fund is to provide retirement benefits to its members. It is part of the Local Government Pension Scheme (LGPS) and is a defined benefit pension scheme.

### Defined benefit pension scheme

In a defined benefit scheme such as this, the nature of retirement benefits that members are entitled to is known in advance. For example, it is known that members will receive a pension on retirement that is linked to their salary and pensionable service according to a pre-determined formula.

However, the precise cost to the Fund of providing these benefits is **not** known in advance. The estimated cost of these benefits represents a liability to the Fund and assets must be set aside to meet this. The relationship between the value of the liabilities and the value of the assets must be regularly assessed and monitored to ensure that the Fund can fulfil its core objective of providing its members with the retirement benefits that they have been promised.

### Liabilities

The Fund's liabilities are the benefits that will be paid in the future to its members (and their dependants).

The precise timing and amount of these benefit payments will depend on future experience, such as when members will retire, how long they will live for in retirement and what economic conditions will be like both before and after retirement. Because these factors are not known in advance, assumptions must be made about future experience. The valuation of these liabilities must be regularly updated to reflect the degree to which actual experience has been in line with these assumptions.

### Assets

The Fund's assets arise from the contributions paid and the investment returns that they generate. The way these assets are invested is of fundamental importance to the Fund. The selection, monitoring and evolution of the Fund's investment strategy are key responsibilities of the Administering Authority.

As the estimated cost of the Fund's liabilities is regularly re-assessed, this effectively means that the amount of assets required to meet them is a moving target. As a result, at any given time the Fund may be technically in surplus or in deficit.

A contribution strategy must be put in place which ensures that the Guarantor pays money into the Fund at a rate which will target the cost of the liabilities in respect of benefits already earned by members.

### The long-term nature of the Fund

The pension fund is a long-term commitment. Even though there are no active members, it will still be paying out benefits to existing members and dependants for many decades to come. It is therefore essential that the various funding and investment decisions that are taken now recognise this and come together to form a coherent long-term strategy.

In order to assist with these decisions, the Regulations require the Administering Authority to obtain a formal valuation of the Fund every three years. Along with the Funding Strategy Statement, this valuation will help determine the funding objectives that will apply from 1 April 2015.



## Appendix B: Summary of the Fund's benefits

The non-discretionary Fund benefits that we have taken into account in this valuation for the members are summarised below.

Provision	Benefit Structure To 31 March 2009
Normal retirement age (NRA)	Age 65
Earliest retirement age (ERA) on which immediate unreduced benefits can be paid on voluntary retirement	<p>As per NRA (age 65).</p> <p>Protections apply to active members in the scheme immediately prior to 1 December 2006 who would have been entitled to immediate payment of unreduced benefits prior to 65, due to:</p> <p>(a) having previously had an NRA of age 60 (or after age 60 on attaining 25 years of scheme membership), due to being a member of the scheme immediately prior to 1 April 1998; or</p> <p>(b) having the potential to satisfy the rule of 85 prior to age 65 (if the sum of age (whole years) and membership (whole years) is 85 or more).</p> <p>The benefits relating to various segments of scheme membership are protected as follows, which means their benefits are calculated based on the above definitions of earliest retirement age in relation to these protected periods of scheme membership.</p> <p>(a) A member born on 31 March 1960 or earlier – membership up to 31 March 2020 protected;</p> <p>(b) All other members in the scheme immediately prior to 1 December 2006 – membership up to 31 March 2008 protected.</p>
Pensionable pay	<p>All salary, wages, fees and other payments in respect of the employment, excluding non-contractual overtime and some other specified amounts.</p> <p>Some scheme members may be covered by special agreements.</p>
Final pay	The pensionable pay in the year up to the date of leaving the scheme. Alternative methods used in some cases, e.g. where there has been a break in service or a drop in pensionable pay.
Period of scheme membership	Total years and days of service during which a member contributes to the Fund. Additional periods may be granted (e.g. transfers from other pension arrangements, augmentation, or from April 2009 the award of additional pension). For part time members, the membership is proportionate with regard to their contractual hours and a full time equivalent.
Normal retirement benefits at NRA	<p>Annual Retirement Pension - 1/80th of final pay for each year of scheme membership.</p> <p>Lump Sum Retirement Grant - 3/80th of final pay for each year of scheme membership. Additional lump sum can be provided by commutation of pension (within overriding limits) on a basis of £12 additional lump sum for each £1 of pension surrendered.</p>
Option to increase retirement lump sum benefit	At the time that benefits come into payment, members have the option to exchange ('commute') some of the retirement pension into additional lump sum. The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.
Voluntary early retirement benefits (non ill-health)	On retirement after age 60 a pension and lump sum based on actual scheme membership completed may be paid, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).



Provision	Benefit Structure To 31 March 2009
Pension increases	All pensions in payment, deferred pensions and dependant's pensions other than benefits arising from the payment of additional voluntary contributions are increased annually. Pensions are increased partially under the Pensions (Increases) Act and partially in accordance with statutory requirements (depending on the proportions relating to pre 88 GMP, post 88 GMP and excess over GMP).
Death after retirement	A spouse's or civil partner's pension of one half of the member's pension (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners) is payable; plus  If the member dies within five years of retiring and before age 75 the balance of five years' pension payments will be paid in the form of a lump sum; plus  Children's pensions may also be payable.
State pension scheme	The Fund is contracted-out of the State Second Pension and the benefits payable to each member are guaranteed to be not less than those required to enable the Fund to be contracted-out.

Note: Certain categories of members of the Fund are entitled to benefits that differ from those summarised above.

#### **Discretionary benefits**

The LGPS Regulations give employers a number of discretionary powers. The effect on benefits or contributions as a result of the use of these provisions as currently contained within the Local Government Pension Scheme Regulations has been allowed for in this valuation to the extent that this is reflected in the membership data provided. No allowance has been made for future use of discretionary powers.



## Appendix C: About the valuation

It is important to realise that the actual cost of the pension fund (i.e. how much money it will ultimately have to pay out to its members in the form of benefits) is currently unknown. This cost will not be known with certainty until the last benefit is paid to the last pensioner. The core purpose of this valuation is to estimate what this cost will be, so that the Fund can then develop a strategy to meet it.

Such a valuation can only ever be an estimate – as the future cannot be predicted with certainty. However, as actuaries, we can use our understanding of the Fund and the factors that affect it to determine an anticipated cost which is as sensible and realistic as possible. A decision can then be made as to how much is set aside now to meet this anticipated cost. The pace of this funding can vary according to the level of prudence that is built into the valuation method and assumptions.

### Past service

The principal measurement here is the comparison at the valuation date of the assets (taken at market value) and the value placed on the Fund's liabilities (calculated using a market-based approach). By maintaining a link to the market in both cases, this helps ensure that the assets and liabilities are valued in a consistent manner. Our calculation of the Fund's liabilities also explicitly allows for expected future pay and pension increases.

The funding level is the ratio of assets to liabilities at the valuation date. A funding level of less/more than 100% implies that there is a deficit/surplus in the Fund at the valuation date.

The funding target is to eliminate any deficit (or surplus) over a specified period and therefore get back to a funding level of 100%. To do so, additional contributions may be required to be paid into the Fund.

### The sensitivity of valuation results

The aim of this valuation is not only to determine these important figures but also to demonstrate their sensitivity to a number of key influences. This will promote an understanding of how the expected cost of the Fund may change in response to uncertain future events (e.g. changes in life expectancy or investment returns).



## Appendix D: Data

This section contains a summary of the membership, investment and accounting data provided by the Administering Authority for the purposes of this valuation (the corresponding membership and investment data from the previous valuation is also shown for reference). For further details of the data, and the checks and amendments performed in the course of this valuation, please refer to our separate report.

### Membership data

#### Deferred pensioners

	31 March 2011		31 March 2014	
	Number	Deferred pension (£000)	Number	Deferred pension (£000)
<b>Total deferred membership</b>	690	1,615	598	1,353

The deferred pension shown includes revaluation up to and including the 2014 Pension Increase Order.

#### Current pensioners, spouses and children

	31 March 2011		31 March 2014	
	Number	Pension (£000)	Number	Pension (£000)
Members	991	6,104	953	6,225
Dependants	302	704	314	805
Children	4	5	3	3
<b>Total pensioner members</b>	<b>1,297</b>	<b>6,813</b>	<b>1,270</b>	<b>7,033</b>

Note that the membership numbers in the table above refer to the number of records provided to us and so will include an element of double-counting in respect of any members who are in receipt (or potentially in receipt of) more than one benefit.

Membership Profile	Average Age (years)	
	2011	2014
Deferred Pensioners	52.4	53.5
Pensioners	69.7	71.6

The average ages are weighted by liability.

### Assets at 31 March 2014

A summary of the Fund's assets as at 31 March 2011 and 31 March 2014 is as follows:

Asset class	Market Value at 31 March 2011 (£000)	Allocation %	Market Value at 31 March 2014 (£000)	Allocation %
UK equities	10,774	9%	8,777	6%
UK fixed interest gilts	11,909	10%	17,336	13%
UK index-linked gilts	49,049	39%	69,498	51%
Overseas equities	38,670	31%	31,189	23%
Property	12,193	10%	6,960	5%
Cash and net current assets	1,713	1%	2,544	2%
<b>Total</b>	<b>124,308</b>	<b>100%</b>	<b>136,305</b>	<b>100%</b>



### Accounting data – revenue account for the three years to 31 March 2014

Consolidated accounts (£000)	Year to			Total
	31 March 2012	31 March 2013	31 March 2014	
<b>Income</b>				
Employer - normal contributions	100	771	771	1,642
Employer - additional contributions	0	0	0	0
Employer - early retirement and augmentation strain contributions	0	23	20	44
Employee - normal contributions	0	0	0	0
Employee - additional contributions	0	0	0	0
Transfers In Received (including group and individual)	0	0	0	0
Other Income	0	0	0	0
<b>Total Income</b>	<b>100</b>	<b>794</b>	<b>791</b>	<b>1,686</b>
<b>Expenditure</b>				
Gross Retirement Pensions	6,912	7,070	7,082	21,065
Lump Sum Retirement Benefits	683	488	329	1,501
Death in Service Lump sum	9	2	15	26
Death in Deferment Lump Sum	0	0	0	0
Death in Retirement Lump Sum	0	0	0	0
Gross Refund of Contributions	0	0	0	0
Transfers out (including bulk and individual)	209	82	9	300
Fees and Expenses	98	61	57	216
<b>Total Expenditure</b>	<b>7,912</b>	<b>7,703</b>	<b>7,493</b>	<b>23,107</b>
<b>Net Cashflow</b>	<b>-7,812</b>	<b>-6,909</b>	<b>-6,701</b>	<b>-21,422</b>
<b>Assets at start of year</b>	<b>124,308</b>	<b>131,418</b>	<b>140,116</b>	<b>124,308</b>
Net cashflow	-7,812	-6,909	-6,701	-21,422
Change in value	14,922	15,606	2,890	33,419
<b>Assets at end of year</b>	<b>131,418</b>	<b>140,116</b>	<b>136,305</b>	<b>136,305</b>
<b>Approximate rate of return on assets</b>	<b>12.4%</b>	<b>12.2%</b>	<b>2.1%</b>	<b>28.7%</b>

Note that the figures above are based on the Fund accounts provided to us for the purposes of this valuation, which were fully audited at the time of our valuation calculations.



## Appendix E: Assumptions

### Financial assumptions

Assumption	Description
Price Inflation (CPI) (deferreds and pensioners)	Bank of England implied inflation (RPI) curve less 0.8% p.a
Discount rate (deferreds and pensioners)	Bank of England nominal yield curve

### Mortality assumptions

Longevity assumptions	31 March 2014
<b>Longevity - baseline</b>	Vita curves
<b>Longevity - improvements</b>	
CMI Model version used	CMI_2012
Starting rates	CMI calibration based on data from Club Vita using the latest available data as at December 2012.
Long term rate of improvement	Period effects: 1.25% p.a. for men and women. Cohort effects: 0% p.a. for men and for women.
Period of convergence	Period effects:  10 years for ages 45 and below with linear transition to 40 years for those aged 75 and over.  Cohort effects:  40 years for those born in 1949 or later declining linearly to 5 years for those born in 1914 or earlier.
Proportion of convergence remaining at mid point	75%

We have suggested a longevity improvement assumption based on the industry standard model and combined information from our longevity experts in Club Vita. The start point for the improvements has been based on observed death rates in the Club Vita data bank.

In the short term we have assumed that improvements in life expectancy will continue to strengthen for a few more years before tailing off. We describe this as 'not peaked', as opposed to the alternative assumption that improvements have 'peaked' and will immediately tail off.

In the long term (for ages up to age 90) we have assumed that increases in life expectancy will stabilise at a rate of increase of 1 year per decade for men and women. This is equivalent to assuming that longer term mortality rates will fall at a rate of 1.25% p.a. for men and women.

However, we have assumed that post age 90 improvements in mortality will be hard to achieve, and so have assumed that the long term rate of improvement will decline between ages 90 and 120 so that no improvements are seen at ages 120 and over.



### Other demographic valuation assumptions

**Family details** A varying proportion of members are assumed to be married (or have an adult dependant) at retirement or on earlier death. For example, at age 60 this is assumed to be 90% for males and 85% for females. Husbands are assumed to be 3 years older than wives.

**Commutation** Future pensioners are assumed to elect to exchange pension for additional tax-free cash up to 50% of HMRC limits.

Sample rates of the incidence of death from deferred status are shown in the table below.

Age	Death in Deferment Rates	
	Incidence per 1000 members per annum	
	All Males	All Females
30	0.36	0.24
35	0.42	0.40
40	0.72	0.64
45	1.20	1.04
50	1.92	1.52
55	3.00	2.00
60	5.40	2.56



## Appendix F: Rates and adjustments certificate

In accordance with regulation 32(1) of the Administration Regulations we have made an assessment of the contributions that should be paid into the Fund by the Guarantor for the period 1 April 2015 to 31 March 2018 in order to maintain the solvency of the Fund.

The required minimum contribution rates are set out in the attached table.

Richard Warden

Fellow of the Institute and Faculty of Actuaries

4 December 2014

Steven Scott

Fellow of the Institute and Faculty of Actuaries

4 December 2014



## Statement to the Rates and Adjustments Certificate

The Minimum Total Contribution Rate payable by the Guarantor is set out below.

Period	Guarantor's Minimum Contribution Rate
1 April 2015 to 31 March 2016	£675,000
1 April 2016 to 31 March 2017	£675,000
1 April 2017 to 31 March 2018	£675,000

### Notes

Contributions should be paid into the Scottish Homes Pension Fund ('the Fund') at a frequency in accordance with the requirements of the Regulations.

The certified contribution rates represent the minimum level of contributions to be paid. Further amounts may be paid at any time.