Isle of Man Local Government Superannuation Scheme
2013 Actuarial Valuation
Valuation Report

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Contents

1 Executive summary

We have carried out an actuarial valuation of the Isle of Man Local Government Superannuation Scheme as at 31 March 2013. The results are presented in this report and are briefly summarised below.

Funding position

The table below summarises the financial position of the Scheme at 31 March 2013 in respect of benefits earned by members up to this date.

Past Service Position	31 March 2010 (£m)	31 March 2013 (£m)
Past Service Liabilities	49.4	70.0
Market Value of Assets	36.6	50.3
Surplus / (Deficit)	(12.8)	(19.7)
Funding Level	**74.0%**	**71.8%**

The increase in deficit reflects the adverse conditions which the Scheme has had to contend with since the previous valuation. In particular, the decrease in the real gilt yield has increased the value placed on the Scheme’s liabilities.

Contribution rates

The table below summarises the average employer contribution rate that would be required, based on this triennial valuation.

Contribution Rates	31 March 2010 (% of pay)	31 March 2013 (% of pay)
Employer future service rate (incl. expenses)	19.3%	27.6%
Past Service Adjustment (20 year spread)	7.1%	10.6%
Total employer contribution rate (incl. expenses)	26.4%	38.2%
Employee contribution rate	6.0%	6.8%
Expenses	2.2%	2.6%

Again, the increase in the total employer contribution rate is primarily due to the decrease in the real gilt yields which has increased both the employer future service rate and the past service adjustment.

The common contribution rate is a theoretical figure – an average across the whole Scheme. However the Fund undertakes a significant modelling exercise during the valuation process to determine the level of contributions payable such that the Fund will return to a fully funded position within a timeframe and with a probability that is within the Fund’s risk parameters. The minimum contributions to be paid by each employer from 1 April 2014 to 31 March 2017 are shown in the Rates and Adjustment Certificate in **Appendix G**.

2 Introduction

Purpose

We have carried out an actuarial valuation of the Isle of Man Local Government Superannuation Scheme as at 31 March 2013.The main purposes of this valuation are:

- to assess the extent to which the Administering Authority‘s funding objectives were met at 31 March 2013;
- to identify the future contributions payable by the employers that participate in the Fund in order to meet the Administering Authority‘s funding objectives;
- to enable completion of all relevant certificates and statements in connection with all relevant regulations;
- to comment on the main risks to the Fund that may result in future volatility in the funding position or to employers' contributions.

Guide to this report

- This valuation report complies with all of the relevant regulations and professional standards, as set out in **section 7**.
- The figures in this report are based on our understanding of the benefit structure of the Scheme as at 31 March 2013. 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 **section 4**.
- We look at some of the risks the Scheme faces in **section 5** and consider any post valuation events in **Appendix F**.
- The valuation is just one aspect of the operation of the Scheme, and related issues are covered in **section 6.**
- In **Appendix G** we then set out the individual employer contribution requirements from 1 April 2014.

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 7**);
- The Discussion Document (dated 21 October 2013 which outlined the preliminary assumption proposals and whole scheme results;
- A revised Discussion Document (dated 21 November) setting out results based on revised assumptions as agreed at the above meeting.
- The formal agreement by the Administering Authority of the actuarial assumptions to be used at a meeting dated 31 October 2013 ;

- The stabilisation modelling carried out for the whole Scheme, as detailed in our report and presentation to the Administering Authority of 20 November 2013 plus additional scenarios presented to the Pension Committee on 27 November 2013 and 26 February 2014;
- The Funding Strategy Statement, confirming the different contribution rate setting approaches for different types of employer or in different circumstances.

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

3 Assumptions

Actuarial assumptions

Assumptions must be made about the factors affecting the Scheme'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 large members' final salaries will be at retirement and how their pensions will increase over time. In addition, the financial assumptions also help us to estimate how much all these benefits will cost the Scheme in today's money.

Financial assumptions

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

	31 March 2010		31 March 2013	
Financial assumptions	**Nominal**	**Real**	**Nominal**	**Real**
Discount Rate	6.1%	2.8%	4.6%	2.1%
Salary Increases*	5.3%**	2.0%	3.8%	1.3%
Price Inflation / Pension Increases	3.3%	-	2.5%	-

** Plus an allowance for promotional pay increases.*

***1% p.a. for 2010/11 and 2011/12, reverting to long term assumption shown thereafter.*

Discount rate

The funding valuation is effectively a planning exercise, to assess the funds needed to meet the benefits as they fall due. In order to place a current value on the future benefit payments from the Scheme, an assumption about future investment returns is required in order to "discount" future benefit payments back to the valuation date at a suitable rate.

For a funding valuation such as this, the discount rate is set by taking into account the Scheme's current and expected future investment strategy and, in particular, how this strategy is expected to outperform the returns from Government bonds over the long term. The additional margin for returns in excess of that available on Government bonds is called the Asset Outperformance Assumption (AOA).

The selection of an appropriate AOA is a matter of judgement and the degree of risk inherent in the Scheme's investment strategy should always be considered as fully as possible.

Although there has been a downward shift in the expected returns on risky assets since the 2010 valuation, we believe the expected returns in excess of the returns on government bonds to be broadly unchanged since 2010. Therefore, we are satisfied that an AOA of 1.6% p.a. is a prudent assumption for the purposes of this valuation. This results in a discount rate of 4.6% p.a.

Price inflation / pension increases

Due to further analysis of the CPI index since 2010, we expect the average long term difference between RPI and CPI to be 0.8% p.a. compared with 0.5% p.a. at the 2010 valuation.

At the previous valuation, the assumption for RPI was derived 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 a similar approach.

Salary increases

The long term assumption for salary increases is RPI plus 0.5% p.a. This translates to CPI plus 1.3% p.a. This is a change in approach from 2010 where we assumed 1% p.a. for 2 years and RPI plus 1.5% p.a. thereafter.

We have set a lower long term rate of salary growth to reflect both short term pay constraints and the belief that general economic growth and hence pay growth may be at a lower level than historically experienced for a prolonged period of time.

Note that this assumption is made in respect of the general level of salary increases (e.g. as a result of inflation and other macroeconomic factors). We also make a separate allowance for expected pay rises granted in the future as a result of promotion. This assumption takes the form of a set of tables which model the expected promotional pay awards based on each member's age and class. Please see **Appendix E**.

Longevity

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

	Actives & Deferreds		Current Pensioners	
Assumed life expectancy at age 65	**Male**	**Female**	**Male**	**Female**
2010 valuation	22.0	24.8	20.1	22.9
2013 valuation	24.4	27.3	21.9	23.8

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

Assets

We have taken the assets of the Scheme into account at their market value as indicated in the audited accounts for the period ended 31 March 2013.

In our opinion, the basis for placing a value on members' benefits is consistent with that for valuing the assets - both are related to market conditions at the valuation date.

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. We have analysed the trends and patterns that are present in the membership of local authority schemes and tailor our demographic assumptions to reflect LGPS experience.

Details of these assumptions are set out in **Appendix E.** Further commentary on these was included in the Discussion Document.

Further comments on the assumptions

As required for Local Government Pension Scheme valuations, our proposed approach to this valuation must include a degree of prudence. This has been achieved by explicitly allowing for a margin of prudence in the AOA.

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 20%, lower than the figures shown here.

4 Results

The Administering Authority has prepared a Funding Strategy Statement which sets out its funding objectives for the Scheme. In broad terms, the main 'past service' objective is to hold sufficient assets in the Scheme to meet the assessed cost of members' past service benefits and the main 'future service' objective is to maintain a relatively stable employer contribution rate. These objectives are potentially conflicting.

Past service

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 2013. The 31 March 2010 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").

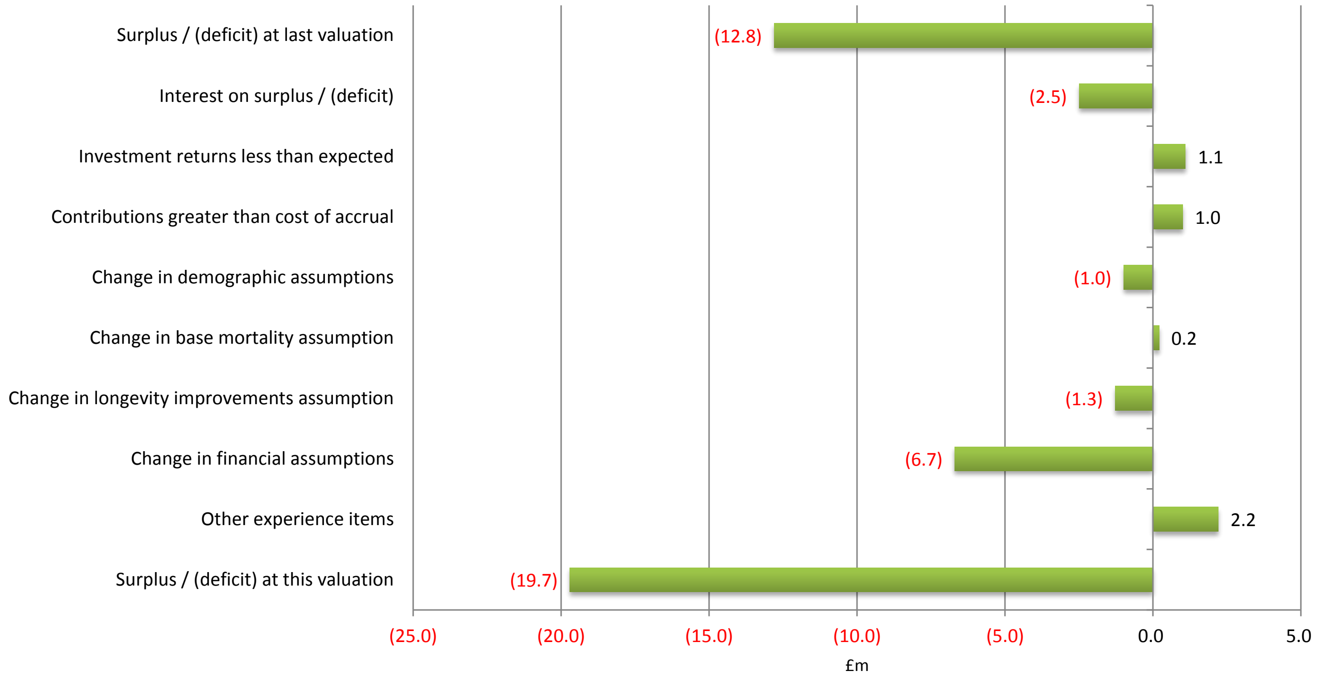
A funding level of 100% would correspond to the funding objective being met at the valuation date.

Valuation Date	31 March 2010	31 March 2013
Past Service Position	***(£m)***	**(£m)**
Past Service Liabilities		
Employees	29.1	40.5
Deferred Pensioners	6.0	10.2
Pensioners	14.3	19.4
Total Liabilities	49.4	70.0
Market Value of Assets	36.6	50.3
Surplus / (Deficit)	**(12.8)**	**(19.7)**
Funding Level	**74.0%**	**71.8%**

The main funding objective was not met: there was a shortfall of assets to the assessed cost of members' benefits of £20m.

Summary of changes to the funding position

The chart below illustrates the factors that caused the funding position to deteriorate between 31 March 2010 and 31 March 2013:



Further comments on some of the items in this chart:

- There is an interest cost of £2.5m. This is broadly three years of compound interest at 6.10% p.a. applied to the previous valuation deficit of £12.8m.
- Investment returns being higher than expected since 2010 lead to a gain of £1.1m. This is roughly the difference between the actual three-year return (roughly 22%) and expected three-year return (roughly 19%) applied to the whole scheme assets from the previous valuation of £36.6m, with a further allowance made for cashflows during the period.
- The overall impact of demographic experience has been a gain of around £1.0m. This includes: contributions paid being greater than benefits accrued, salary growth less than expected and positive ill health experience. There have been small losses on: pension increases being greater than expected, early retirements and withdrawal.
- The change in mortality assumptions (baseline and improvements) has given rise to a loss of £1.1m. This is mainly due to the change in assumed longevity improvements.
- The change in financial conditions between the previous valuation has led to a loss of £6.7m. This is due to a decrease in the real discount rate between 2010 and 2013. This has been partially been offset by the 0.8% p.a. increase in our assumption of the gap between RPI and CPI.
- Other experience items, such as changes in the membership data and introduction of the 2012 Scheme, have served to decrease the deficit at this valuation by around £2.1m.

Future service

We have calculated the average long-term contribution rate that the Scheme employers would need to pay to meet the estimated cost of members' benefits that will be earned after 31 March 2013 (the 'future service contribution rate'). Again, we have used the assumptions set out in the previous section of this report and the method set out in **Appendix C**. The resulting contribution rate is that which should (if the actuarial assumptions about the future are borne out in practice) ensure that the Administering Authority's main future service funding objective is met. The table below details this future service contribution rate for 31 March 2013 and shows the 31 March 2010 for comparison.

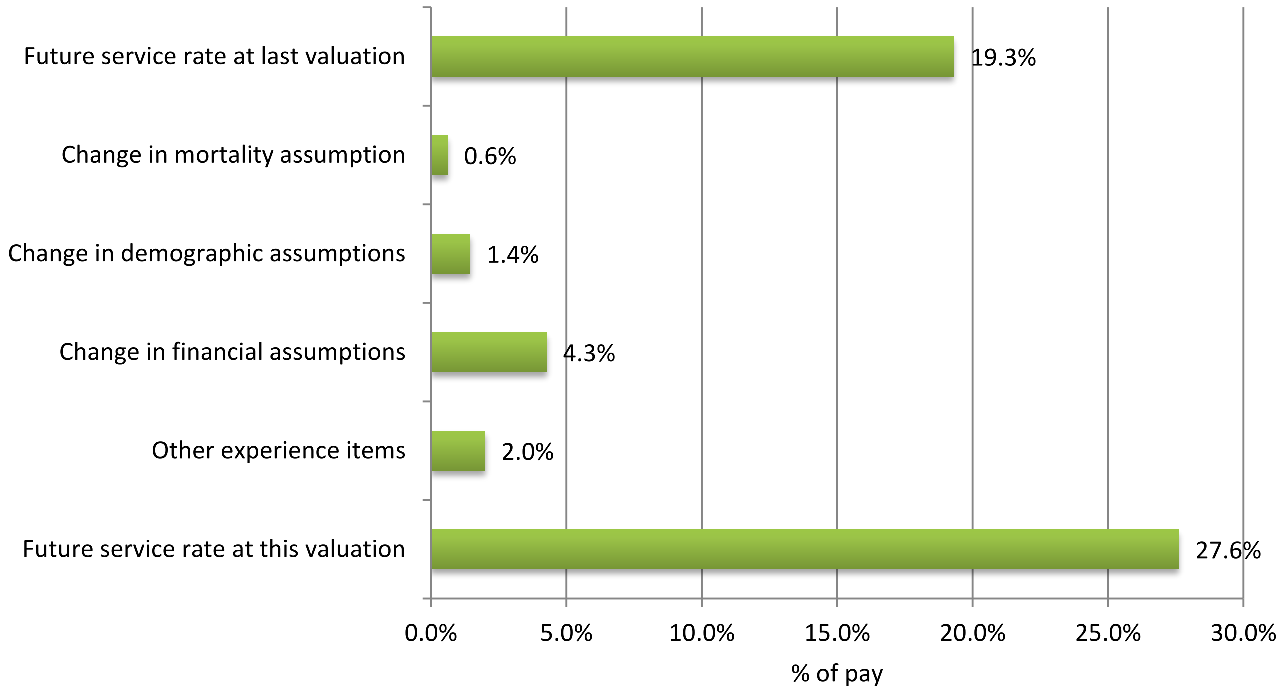
Valuation Date	31 March 2010	31 March 2013
Future service rate	**% of pay**	**% of pay**
Employer future service rate (excl. expenses)	17.1%	25.0%
Expenses	2.2%	2.6%
Total employer future service rate (incl. expenses)	**19.3%**	**27.6%**
Employee contribution rate	6.0%	6.8%

Note that the employee contribution rate includes any additional contributions being paid by employees as at 31 March 2013. This future service contribution rate makes no allowance for the past service deficit in the Scheme described above.

The average future service rate for Scheme employers is 27.6% of pay. However the contributions payable by the Fund's employers are determined by stabilisation modelling.

Summary of changes to the future service rate

The chart below illustrates the factors that caused the future service rate to increase between 31 March 2010 and 31 March 2013:



As can be seen from this chart, the factors that have had the biggest impact on the future service rate between 2010 and 2013 are broadly similar to those discussed for the past service position.

Total common contribution rate payable

The total (or “common”) contribution rate payable is the average future service rate for Scheme employers plus an additional amount to recover the deficit and bring the funding level back to 100% over a period of 20 years, as set out in the Funding Strategy Statement. This additional amount is referred to as the past service adjustment.

The common contribution rate based on the funding position as at 31 March 2013 is detailed below along with the results for 31 March 2010:

Valuation Date	31 March 2010	31 March 2013
Total contribution rate	**% of pay**	**% of pay**
Future service rate (incl. expenses)	19.3%	27.6%
Past service adjustment (20 year spread)	7.1%	10.6%
Total employer contribution rate	**26.4%**	**38.2%**

5 Risk Assessment

The valuation results depend critically on the actuarial assumptions that are made about the future of the Scheme. 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 Scheme as it currently stands at 31 March 2013.

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 Scheme and these should be considered as part of the valuation process. In particular:

- The main risks to the financial health of the Scheme 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

The table below gives an indication of the sensitivity of the valuation results to small changes in some of the main assumptions used.

		Impact	
Assumption	**Change**	**Deficit (£m)**	**Future service rate (% of pay)**
Discount rate	Increases by 0.5%	Falls by £7m	Falls by 4%
Salary increases	Increases by 0.5%	Rises by £3m	Rises by 2%
Price inflation / pension increases	Increases by 0.5%	Rises by £5m	Rises by 2%
Life expectancy	Increases by 1 year	Rises by £2m	Rises by 1%

This is not an exhaustive list of the assumptions used in the valuation. For example, changes to the assumed level of withdrawals and ill health retirements will also have an effect on the valuation results. However, the table contains those assumptions that typically are of most interest and have the biggest impact.

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 Scheme to deviate from more than one of our assumptions simultaneously and so the precise effect on the funding position is therefore more complex.

Investment risk

Sensitivity of valuation results to market conditions and investment performance

As the assets of the Scheme 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 particularly relevant because the Scheme is invested predominantly 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 Scheme, which may seem obvious.

Less obvious is the effect of anticipated investment performance on the Scheme's liabilities (and future service cost). 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 Scheme's liabilities is based on gilt yields at the valuation date plus a margin of 1.6% p.a.

The table below shows how the funding level (top), deficit (middle, in £m) and total contribution rate (bottom, as % of pay) would vary if investment conditions at 31 March 2013 had been different. 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	FTSE 100 Price Index: 5912	6412	6912
-0.10%	70.3% (20.0) 37.0%	74.7% (18.6) 36.3%	79.1% (14.1) 33.8%
-0.30%	67.6% (22.7) 39.8%	71.8% (19.7) 38.2%	76.0% (16.8) 36.6%
-0.50%	65.0% (25.5) 42.6%	68.8% (22.8) 41.3%	73.1% (19.6) 39.5%

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 Scheme (e.g. overseas equities, property, bonds, cash etc.) 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. The discount rate assumption adopted at this valuation is expected to be appropriate over the long term. Short term volatility of equity markets does not invalidate this assumption.

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 employer contribution rates will increase.

Recent medical advances, changes in lifestyle and a greater awareness of health-related matters have resulted in life expectancy amongst pension scheme 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 Scheme since the previous valuation. It is however possible that further allowances for increasing life expectancy may be required at the next formal valuation.

The table below shows how the valuation results at 31 March 2013 are affected by adopting different longevity assumptions.

	Impact	
Longevity assumption	**Deficit (£m)**	**Future service rate**
2010 valuation	(12.8)	19.3%
2013 valuation (with improvements)	(19.7)	27.6%
2013 valuation (further improvements)	(22.8)	29.1%
1 year extra	(25.0)	30.1%

The shaded box contains the results for this valuation.

Full details of the longevity improvements adopted at this valuation are set out in **Appendix E**.

The "further improvements" are a more cautious set of improvements that, in the short term, assume the 'cohort effect' of strong improvements in life expectancy currently being observed amongst a generation born around the early and mid 1930s will continue to strengthen for a few more years before tailing off. This is known as "non-peaked".

The "1 year extra" figures relative to a further year of life expectancies beyond those assumed in "further improvements".

Again, the range of assumptions shown here is by no means exhaustive and should not be considered as the limits of how extreme future longevity experience could be.

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 have a large financial impact on the Scheme and therefore the analysis is qualitative rather than quantitative.

	Impact	
Factor	**Funding level**	**Future service rate**
Greater level of ill health retirement	Decreases	Marginal
Reduced level of withdrawals	Decreases	Marginal
Rise in average age of employee members	Marginal effect	Increases

One further risk to consider is the possibility of future changes to Regulations that could materially affect the benefits that members become entitled to. It is difficult to predict the nature of any such changes but it is not inconceivable that they could affect not just the cost of benefits earned after the change but could also have a retrospective effect on the past service position (as the move from RPI to CPI-based pension increases already has).

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 Superannuation Scheme, 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:

- Monitor the funding position of the Scheme more regularly to allow planning and budgeting for potential future contribution rate increases.
- Set aside a specific reserve to act as a cushion against adverse future experience (possibly by selecting a set of actuarial assumptions that are deliberately more prudent).
- Take steps internally to monitor the decisions taken by members and employers (e.g. relating to early / ill health retirements or salary increases) in a bid to curtail any adverse impact on the Scheme.
- Carrying out a review of the future security of the Scheme's employers (i.e. assessing the strength of employer covenants).
- Carry out a bespoke analysis of the longevity of Scheme members and monitor how this changes over time, so that the longevity assumptions at the valuation provide as close as fit as possible to the particular experience of the Scheme. This is effectively what Club Vita does.
- Undertake an asset-liability modelling exercise that investigates the effect on the Scheme of thousands of possible investment scenarios that may arise in the future. An assessment can then be made as to whether long term, secure employers in the Scheme can stabilise their future contribution rates (thus introducing more certainty into their future budgets) without jeopardising the long-term health of the Scheme. This is exactly what our comPASS tool does.
- Purchasing ill health liability insurance to mitigate the risk of an ill health retirement impacting on solvency and funding level of an individual employer where appropriate.
- Monitoring different employer characteristics in order to build up a picture of the risks posed. Examples include membership movements, cash flow positions and employer events such as cessations.

Adopting one or more of these measures can assist with the management of risk within the Superannuation Scheme.

6 Related issues

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

- the Funding Strategy Statement, which in particular highlights how the contributions are calculated;
- the Statement of Investment Principles (e.g. the discount rate must be consistent with the Scheme's asset strategy);
- the general governance of the Scheme, such as meetings of the Pensions Committee, decisions delegated to officers, the Scheme's business plan, etc;
- the Scheme's risk register;
- the register of Scheme employers.

Further recommendations

Valuation frequency

Under the provisions of the Regulations, the next formal valuation of the Scheme is due to be carried out as at 31 March 2016. In light of the uncertainty of future financial conditions, we recommend that the financial position of the Scheme 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.

Additional payments

Sums should be paid to the Scheme by employers to meet the capital costs of any unreduced early retirements, reduced early retirements before age 60 and/or augmentation (i.e. additional membership or additional pension) using the methods and factors issued by us from time to time or as otherwise agreed.

In addition, payments may be required to be made to the Scheme by employers to meet the capital costs of any ill-health retirements that exceed those allowed for within our assumptions.

Cessations and bulk transfers

Any Admission Body who ceases to participate in the Scheme should be referred to us in accordance with the Regulations.

Any bulk movement of scheme members involving 2 or more members being transferred from or to another pension arrangement should be referred to me to consider the impact on the Scheme.

7 Reliances and limitations

Scope

This document has been requested by and is provided to Borough of Douglas in its capacity as Administering Authority to the Isle of Man Local Government Superannuation Scheme. It has been prepared by Hymans Robertson LLP to fulfil the statutory obligations in accordance the Regulations. None of the figures should be used for accounting purposes (e.g. under FRS17 or IAS19) or for any other purpose (e.g. a termination valuation).

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 12 November 2013.

Actuarial Standards

The following Technical Actuarial Standards[1] 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.

Julie West

Julie West

Fellow of the Institute and Faculty of Actuaries

27 March 2014

[1] 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 Superannuation Scheme

For more details please refer to the Scheme's Funding Strategy Statement.

The purpose of the Scheme is to provide retirement and death benefits to its members. It is a multi-employer defined benefit scheme which largely mirrors the national Local Government Pension Scheme (LGPS) applicable in England and Wales with some local differences.

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 Scheme of providing these benefits is **not** known in advance. The estimated cost of these benefits represents a liability to the Scheme 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 Scheme can fulfil its core objective of providing its members with the retirement benefits that they have been promised.

Liabilities

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

As the estimated cost of the Scheme'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 Scheme may be technically in surplus or in deficit.

A contribution strategy must be put in place which ensures that each of the Scheme's employers pays money into the Scheme at a rate which will target the cost of its share of the liabilities in respect of benefits already earned by members and those that will be earned in the future.

The long-term nature of the Scheme

The Superannuation Scheme is a long-term commitment. Even if it were to stop admitting new members today, it would 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 Scheme every three years. Along with the Funding Strategy Statement, this valuation will help determine the funding objectives that will apply from 1 April 2014.

Appendix B: Summary of the Scheme's benefits

Provided below is a brief summary of the non-discretionary benefits that we have taken into account for active members at this valuation. This shouldn't be taken as a comprehensive statement of the exact benefits to be paid. For further details please see the Regulations.

Provision	Benefit Structure To 31 March 2012	Benefit Structure From 1 April 2012
Normal retirement age (NRA)	Age 65.	Age 65.
Earliest retirement age (ERA) on which immediate unreduced benefits can be paid on voluntary retirement	As per NRA (age 65) or, if earlier, the rule of 85 date (when years of age plus years of scheme membership total to 85). Limitations on payment of benefits prior to age 60.	
Member contributions	Officers - 6% of pensionable pay Manual Workers – 5% of pensionable pay if has protected lower rates rights or 6% for post 31 March 1998 entrants or former entrants with no protected rights.	Banded rates (5.5%-7.5%) depending upon level of full-time equivalent pay.
Pensionable pay	All salary, wages, fees and other payments in respect of the employment, excluding non-contractual overtime and some other specified amounts. Some scheme members may be covered by special agreements.	
Final pay	The pensionable pay in the year up to the date of leaving the scheme, or last 2 years if higher. May also be determined using a Certificate of Protection.	
Period of scheme membership	Total years and days of service during which a member contributes to the Scheme. (e.g. transfers from other pension arrangements, augmentation, or from April 2012 the award of additional pension). For part time members, the membership is proportionate with regard to their contractual hours and a full time equivalent). Additional periods may be granted dependent on member circumstances.	
Normal retirement benefits at NRA	Annual Retirement Pension - 1/80th of final pay for each year of scheme membership. 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.	Scheme membership from 1 April 2012: Annual Retirement Pension - 1/60th of final pay for each year of scheme membership. Lump Sum Retirement Grant – none except by commutation of pension.

Provision	Benefit Structure To 31 March 2012	Benefit Structure From 1 April 2012
Option to increase retirement lump sum benefit	In addition to the standard retirement grant any lump sum is to be provided by commutation of pension (within overriding HMRC limits). The terms for the conversion of pension in to lump sum is £12 of lump sum for every £1 of annual pension surrendered.	No automatic lump sum. Any lump sum is to be provided by commutation of pension (within overriding HMRC limits). 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, subject to reduction on account of early payment in some circumstances (in accordance with ERA protections).	
Employer's consent early retirement benefits (non ill-health)	Benefits paid on redundancy or efficiency grounds are paid with no actuarial reduction. Otherwise, benefits are subject to reduction on account of early payment, unless this is waived by the employer.	
	On retirement after age 50 with employer's consent.	On retirement after age 55 with employer's consent.
Ill-health benefits	As a result of permanent ill-health or incapacity. Immediate payment of unreduced benefits. Enhancement to scheme membership, dependent on actual membership. Enhancement seldom more than 6 years 243 days.	As a result of permanent ill-health or incapacity and a reduced likelihood of obtaining gainful employment (local government or otherwise) before age 65. Immediate payment of unreduced benefits. Enhanced to scheme membership, dependent on severity of ill health. 100% of prospective membership to age 65 where no likelihood of undertaking any gainful employment prior to age 65; 25% of prospective membership to age 65 where likelihood of obtaining gainful employment after 3 years of leaving, but before age 65; or 0% of prospective membership where there is a likelihood of undertaking gainful employment within 3 years of leaving employment
Flexible retirement	None	A member who has attained the age of 55 and who, with his employer's consent, reduces the hours he works, or the grade in which he is employed, may take a request in writing to the appropriate administering authority to receive all or part of his benefits. Benefits are paid immediately and subject to actuarial reduction unless reduction is waived by the employer.

Provision	Benefit Structure To 31 March 2012	Benefit Structure From 1 April 2012
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.	A spouse's, civil partner's or nominated cohabiting partner's pension payable at a rate of 1/160th of the member's total membership multiplied by final pay (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners) is payable; plus If the member dies within ten years of retiring and before age 75 the balance of ten years' pension payments will be paid in the form of a lump sum; plus Children's pensions may also be payable.
Death in service	A lump sum of two times final pay; plus A spouse's or civil partner's pension of one half of the ill-health retirement pension that would have been paid to the scheme member if he had retired on the day of death (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners); plus Children's pensions may also be payable	A lump sum of three times final pay; plus A spouse's, civil partner's or cohabiting partner's pension payable at a rate of 1/160th of the member's total (augmented to age 65) membership (generally post 1 April 1972 service for widowers' pension and post 6 April 1988 for civil partners and nominated cohabiting partners), multiplied by final pay; plus Children's pensions may also be payable.
Leaving service options	If the member has completed three months' or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions ; or A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or If the member has completed less than three months' scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.	If the member has completed 2 years' or more scheme membership, deferred benefits with calculation and payment conditions similar to general retirement provisions ; or A transfer payment to either a new employer's scheme or a suitable insurance policy, equivalent in value to the deferred pension; or If the member has completed less than two years' scheme membership, a return of the member's contributions with interest, less a State Scheme premium deduction and less tax at the rate of 20%.

<table>
<tr><th>Provision</th><th>Benefit Structure To 31 March 2012</th><th>Benefit Structure From 1 April 2012</th></tr>
<tr><td>State pension scheme</td><td colspan="2">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).</td></tr>
</table>

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

Discretionary benefits

The 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 Regulations has been allowed for in this valuation to the extent that this is reflected in the membership data provided.

Appendix C: About the valuation

For more details please refer the Scheme's Funding Strategy Statement.

It is important to realise that the actual cost of the Superannuation Scheme (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 Scheme 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 Scheme 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.

For this valuation, as for the previous valuation, our calculations identify separately the expected cost of members' benefits in respect of scheme membership completed before the valuation date ("past service") and that which is expected to be completed after the valuation date ("future service").

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 Scheme'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 Scheme'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 Scheme 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 Scheme, either via lump sums or by increasing the employer's contribution rate. These additional contributions are known as the past service adjustment.

Future service

In addition to benefits that have already been earned by members prior to the valuation date, employee members will continue to earn new benefits in the future. The cost of these new benefits must be met by both employers and employees. The employers' share of this cost is known as the future service contribution rate.

For the valuation results for the Scheme as a whole, we have calculated the future service rate as the cost of benefits being earned by members over the year following the valuation, taking account of expected future salary increases until retirement. If new entrants are admitted to the Scheme to the extent that the overall membership profile remains broadly unchanged (and if the actuarial assumptions are unchanged) then the future service rate should be reasonably stable.

This funding method we have used is known as the Projected Unit Method. As well as the whole scheme, it is appropriate for individual employers that continue to admit new entrants to the Scheme.

However, some participating employers may have a policy of not admitting new entrants. In this case, the membership profile will inevitably begin to age. Under these circumstances, the Projected Unit Method is arguably no longer appropriate and will not promote sufficient stability in the future service rate. For these employers, we will adopt a funding method known as the Attained Age Method, which effectively looks at the cost of benefits that members will earn over the entirety of their remaining working lifetime (rather than just the year following the valuation).

Combining this future service rate with any past service adjustment required to repay a deficit (or reduce a surplus) gives us the total contribution rate. The total rate for the Scheme as a whole is known as the common contribution rate. This is really just a notional figure. In practice, each individual employer will have a contribution rate which reflects their own particular circumstances.

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 Scheme may change in response to uncertain future events (e.g. changes in life expectancy or investment returns). Please refer to **section 5** for details of the sensitivity analysis.

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 – whole scheme

Employee members

	31 March 2010		31 March 2013	
	Number	Pensionable Pay* (£000)	Number	Pensionable Pay* (£000)
Total employee membership	443	10,493	403	10,084

*actual pay (not full-time equivalent)

Deferred pensioners

	31 March 2010		31 March 2013	
	Number	Deferred pension (£000)	Number	Deferred pension (£000)
Total deferred membership	183	372	225	532

Current pensioners, spouses and children

	31 March 2010		31 March 2013	
	Number	Pension (£000)	Number	Pension (£000)
Members	167	886	201	1,132
Dependants	43	127	45	129
Children	2	2	2	2
Total pensioner members	**212**	**1,015**	**248**	**1,263**

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)		FWL (years)	
	2010	2013	2010	2013
Employees	51.3	52.8	8.2	8.6
Deferred Pensioners	49.5	50.5	-	-
Pensioners	68.3	69.1	-	-

The average ages are weighted by liability.

The expected future working lifetime (FWL) indicates the anticipated length of time that the average employee member will remain as a contributor to the Scheme. Note that it allows for the possibility of members leaving, retiring early or dying before retirement. This has increased due to the new demographic assumptions adopted for the 2013 valuation.

Membership data – individual employers

Employer code	Employer name	Employees		Deferreds		Pensioners	
		Number	Actual Pay (£000)	Number	Pension (£000)	Number	Pension (£000)
1	Braddan Parish Commissioners	6	231	0	0	0	0
2	Braddan Church, Vicar and Wardens	2	43	1	1	0	0
3	Bride Parish Commissioners	1	4	0	0	0	0
4	Castletown Commissioners	12	250	5	21	9	70
5	Crossroad Caring for Careers	0	0	2	4	2	6
6	Douglas Borough Council	218	5,768	126	283	132	715
7	Leonard Cheshire Foundation	1	9	1	1	2	4
8	Malew Parish Commissioners	6	161	3	12	2	15
9	Manx Foundation for Physically Disabled	0	0	2	9	1	1
10	Marashen Crescent Housing Committee	5	85	0	0	1	5
11	Manx Churches Adoption and Welfare Society	7	236	4	21	6	54
12	Michael Commissioners	1	21	1	0	0	0
13	Northern Local Authorities Swimming Pool Board	6	83	4	10	1	6
14	Onchan District Commissioners	38	949	23	64	36	150
15	Peel Town Commissioners	19	502	6	22	9	42
16	Port Erin Commissioners	13	305	9	8	3	8
17	Port St Mary Commissioners	5	97	11	26	10	28
18	Ramsey Town Commissioners	40	935	16	37	17	106
19	Ramsey and Northern District Housing Committee	5	67	0	0	5	16
20	Southern Civic Amenity Site Board	4	74	2	2	1	1
21	Southern Local Authorities Swimming Pool Board	9	180	9	11	7	31
22	St Peters Church Vicar and Wardens	1	16	0	0	0	0
23	Manx Blind Welfare	0	0	0	0	1	2
24	Peel and Western District Housing Committee	0	0	0	0	1	1
25	Department of Tourism and Leisure (Villa Marina)	0	0	0	0	2	4
66	Laxey Village Commissioners	2	40	0	0	0	0
77	Marown Parish Commissioners	1	9	0	0	0	0
78	Castletown & Malew Elderly Persons Housing Board	1	19	0	0	0	0

Assets at 31 March 2013

A summary of the Scheme's assets (excluding members' money-purchase Additional Voluntary Contributions) as at 31 March 2013 and 31 March 2010 is as follows:

Asset class	Market Value at 31 March 2010 (£000)	Allocation %	Market Value at 31 March 2013 (£000)	Allocation %
UK equities	25,452	70%	12,500	25%
UK fixed interest gilts	5,333	15%	9,005	18%
UK corporate bonds	0	0%	636	1%
UK index-linked gilts	1,709	5%	271	1%
Overseas equities	0	0%	19,776	39%
Overseas bonds	0	0%	1,268	3%
Property	3,019	8%	5,521	11%
Cash and net current assets	1,067	3%	1,306	3%
Total	**36,580**	100%	**50,283**	100%

Accounting data – revenue account for the three years to 31 March 2013

Consolidated accounts (£000)	Year to			
	31 March 2011	31 March 2012	31 March 2013	Total
Income				
Employer - normal contributions	2,430	2,486	2,453	7,369
Employer - additional contributions	0	0	0	0
Employer - early retirement and augmentation strain contributions	24	5	0	29
Employee - normal contributions	619	636	683	1,937
Employee - additional contributions	19	20	20	58
Transfers In Received (including group and individual)	557	59	477	1,093
Other Income	0	0	0	0
Total Income	**3,648**	**3,205**	**3,633**	**10,486**
Expenditure				
Gross Retirement Pensions	1,064	1,098	1,210	3,371
Lump Sum Retirement Benefits	260	263	271	794
Death in Service Lump sum	37	120	126	282
Death in Deferment Lump Sum	0	0	0	0
Death in Retirement Lump Sum	0	0	0	0
Gross Refund of Contributions	4	11	0	14
Transfers out (including bulk and individual)	9	26	171	206
Fees and Expenses	239	327	285	852
Total Expenditure	**1,612**	**1,845**	**2,062**	**5,519**
Net Cashflow	**2,036**	**1,360**	**1,570**	**4,967**
Assets at start of year	**36,580**	**41,430**	**43,772**	**36,580**
Net cashflow	2,036	1,361	1,570	4,968
Change in value	2,814	981	4,941	8,736
Assets at end of year	**41,430**	**43,772**	**50,283**	**50,283**
Approximate rate of return on assets	**7.5%**	**2.3%**	**11.1%**	**22.2%**

Note that the figures above are based on the Scheme 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

Financial assumptions	31 March 2010 (% p.a.)	31 March 2013 (% p.a.)
Discount rate	6.1%	4.6%
Price inflation	3.8%	3.3%
Pay increases*	5.3%	3.8%
Pension increases:		
pension in excess of GMP	3.3%	3.3%
post-88 GMP	2.8%	2.5%
pre-88 GMP	0.0%	0.0%
Revaluation of deferred pension	3.3%	3.3%
Expenses	2.2%	2.6%

*An allowance is also made for promotional pay increases (see table below). Note that the assumption at 31 March 2010 is actually 1% p.a. for 2010/11 and 2011/12, reverting to the long term assumption thereafter.

Mortality assumptions

Longevity assumptions	31 March 2013
Longevity - baseline	Vita curves
Longevity - improvements	
CMI Model version used	CMI_2010
Starting rates	CMI calibration based on data from Club Vita using the latest available data as at December 2011.
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: CMI model core values i.e. 10 years for ages 50 and below and 5 years for those aged 95 and above, with linear transition to 20 years for those aged between 60 and 80. Cohort effects: CMI core i.e. 40 years for those born in 1947 or later declining linearly to 5 years for those born in 1912 or earlier.
Proportion of convergence remaining at mid point	50%

We have suggested a longevity improvement assumption based on the latest industry standard 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 over the period.

In the short term we have assumed that the ‘cohort effect’ of strong improvements in life expectancy currently being observed amongst a generation born around the early and mid 1930s will start to tail off, resulting in life expectancy increasing less rapidly than has been seen over the last decade or two. This is known as ‘peaked’.

In the long term (post age 70) 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 are hard to achieve, declining between ages 90 and 120 so that no improvements are seen at ages 120 and over. The initial rate of mortality is assumed to decline steadily above age 98.

Various scaling factors have been applied to the mortality tables to reflect the predicted longevity for each class of member and their dependants. Full details of these are available on request.

As a member of Club Vita, the longevity assumptions that have been adopted at this valuation are a bespoke set of VitaCurves that are specifically tailored to fit the membership profile of the Scheme. These curves are based on the data you have provided us with for the purposes of this valuation. Full details of these are available on request.

Other demographic valuation assumptions

Retirements in ill health	Allowance has been made for ill-health retirements before Normal Pension Age (see table below).
Withdrawals	Allowance has been made for withdrawals from service (see table below).
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	25% of future retirements elect to exchange pension for additional tax free cash up to Treasury limits.

The tables below show details of the assumptions actually used for specimen ages. The promotional pay scale is an annual average for all employees at each age. It is in addition to the allowance for general pay inflation described above. For membership movements, the percentages represent the probability that an individual at each age leaves service within the following twelve months.

Death in Service tables:

Age	Incidence per 1000 active members per annum			
	Male officers and Post 98	Male Manuals	Female officers and Post 98	Female Manuals
	Death	Death	Death	Death
20	0.26	0.32	0.14	0.17
25	0.26	0.32	0.14	0.17
30	0.31	0.38	0.20	0.26
35	0.36	0.45	0.34	0.43
40	0.61	0.77	0.54	0.68
45	1.02	1.28	0.88	1.11
50	1.63	2.04	1.29	1.62
55	2.55	3.19	1.70	2.13
60	4.59	5.74	2.18	2.72
65	7.65	9.56	2.79	3.49

Ill Health Early Retirements tables

Tier 1

Age	Incidence for 1000 active members per annum							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.76	0.60	0.19	0.15	0.99	0.79
30	0.00	0.00	1.39	1.11	0.25	0.20	1.44	1.15
35	0.19	0.15	2.08	1.66	0.50	0.40	1.98	1.58
40	0.32	0.25	3.02	2.42	0.76	0.60	2.88	2.30
45	0.69	0.55	4.16	3.33	1.01	0.81	3.78	3.02
50	1.76	1.41	6.17	4.94	1.89	1.51	5.04	4.03
55	6.91	5.53	14.61	11.69	7.01	5.61	13.54	10.83
60	12.16	9.73	23.42	18.74	14.86	11.89	23.81	19.05
65	23.10	18.48	45.15	36.12	26.71	21.37	45.15	36.12

Tier 2

Age	Incidence for 1000 active members per annum							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.80	0.64	0.20	0.16	1.05	0.84
30	0.00	0.00	1.47	1.18	0.27	0.21	1.53	1.22
35	0.20	0.16	2.21	1.77	0.54	0.43	2.10	1.68
40	0.33	0.27	3.21	2.57	0.80	0.64	3.06	2.45
45	0.74	0.59	4.42	3.53	1.07	0.86	4.02	3.21
50	2.37	1.90	8.31	6.65	2.54	2.03	6.78	5.43
55	5.34	4.27	11.29	9.03	5.42	4.33	10.47	8.37
60	4.58	3.66	8.82	7.05	5.60	4.48	8.96	7.17
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Tier 3

Age	Incidence for 1000 active members per annum							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	Ill Health		Ill Health		Ill Health		Ill Health	
	FT	PT	FT	PT	FT	PT	FT	PT
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	0.00	0.48	0.38	0.09	0.07	0.55	0.44
30	0.09	0.07	0.77	0.62	0.15	0.12	0.77	0.61
35	0.12	0.10	1.16	0.93	0.30	0.24	1.11	0.88
40	0.21	0.17	1.61	1.29	0.39	0.31	1.53	1.22
45	0.48	0.38	2.32	1.86	0.62	0.50	1.96	1.56
50	0.26	0.21	0.68	0.54	0.24	0.20	0.58	0.46
55	0.37	0.30	0.77	0.61	0.45	0.36	0.76	0.61
60	0.21	0.17	0.42	0.33	0.25	0.20	0.42	0.33
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Withdrawal

Less than 2 years' service

Age	Incidence for 1000 active members per annum											
	Male Officers Withdrawals		Male Manuals Withdrawals		Female Officers Withdrawals		Female Manuals Withdrawals		Post 98 Males Withdrawals		Post 98 Females Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
20	304.04	506.74	304.04	506.74	288.39	400.55	288.39	400.55	557.41	1000.00	384.52	640.87
25	200.83	334.72	201.20	335.01	194.07	269.50	194.43	269.79	368.19	736.38	258.74	431.17
30	142.53	237.46	143.05	237.91	162.69	225.89	163.17	226.27	261.24	522.40	216.89	361.38
35	111.38	185.51	112.17	186.19	140.45	194.94	141.07	195.43	204.11	408.11	187.19	311.79
40	89.71	149.31	90.77	150.23	116.92	162.22	117.80	162.92	164.33	328.47	155.80	259.40
45	73.64	122.28	75.03	123.55	96.49	133.73	97.50	134.54	134.71	268.98	128.49	213.73
50	56.96	94.68	57.28	95.02	73.34	101.75	73.60	101.96	104.26	208.28	97.73	162.71
55	49.47	82.09	49.77	82.44	56.73	78.59	56.97	78.78	90.46	180.57	75.53	125.58
60	29.97	49.75	30.13	49.94	26.40	36.55	26.52	36.65	54.81	109.43	35.13	58.39

More than 2 years' service

Age	Incidence for 1000 active members per annum											
	Male Officers Withdrawals		Male Manuals Withdrawals		Female Officers Withdrawals		Female Manuals Withdrawals		Post 98 Males Withdrawals		Post 98 Females Withdrawals	
	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
20	119.85	199.76	119.85	199.76	113.69	157.90	113.69	157.90	219.73	439.46	151.58	252.63
25	79.17	131.95	79.31	132.06	76.50	106.24	76.64	106.35	145.14	290.28	101.99	169.97
30	56.18	93.60	56.39	93.78	64.13	89.05	64.32	89.20	102.98	205.93	85.50	142.46
35	43.90	73.12	44.22	73.40	55.37	76.84	55.61	77.04	80.46	160.88	73.79	122.91
40	35.36	58.85	35.79	59.22	46.09	63.95	46.44	64.22	64.78	129.48	61.42	102.26
45	29.03	48.18	29.59	48.71	38.04	52.72	38.44	53.04	53.10	106.03	50.65	84.25
50	22.45	37.31	22.58	37.46	28.91	40.11	29.01	40.19	41.10	82.10	38.52	64.14
55	19.50	32.35	19.62	32.50	22.36	30.98	22.46	31.06	35.66	71.18	29.77	49.50
60	11.82	19.60	11.88	19.69	10.41	14.41	10.46	14.45	21.61	43.14	13.85	23.02

Promotional salary scale

Age	Promotional Salary Scales							
	Male Officers & Post 98 Males		Male Manuals		Female Officers & Post 98 Females		Female Manuals	
	FT	PT	FT	PT	FT	PT	FT	PT
20	100	100	100	100	100	100	100	100
25	135	116	100	100	118	105	100	100
30	169	134	100	100	137	111	100	100
35	192	146	100	100	151	116	100	100
40	208	153	100	100	163	121	100	100
45	222	154	100	100	166	122	100	100
50	236	154	100	100	166	122	100	100
55	239	154	100	100	166	122	100	100
60	239	154	100	100	166	122	100	100
65	239	154	100	100	166	122	100	100

Appendix F: Events since valuation date

Post-valuation events

These valuation results are in effect a snapshot of the Scheme as at 31 March 2013. Since that date, various events have had an effect on the financial position of the Scheme. Whilst we have not explicitly altered the valuation results to allow for these events, a short discussion of these “post-valuation events” can still be beneficial in understanding the variability of pension funding.

Investment conditions since 31 March 2013

In the period from the valuation date to early March 2014, investment markets moved in the following manner:

- asset returns have been c. 7%
- long term Government bond yields have risen by more than long term expected price inflation, which is likely to have reduced past service liabilities by c. 5%

It should be noted that the above is for information only: the figures in this report have all been prepared using membership data, audited asset information and market-based assumptions all as at 31 March 2013. In particular, we do not propose amending any of the contribution rates listed in the Rates & Adjustments Certificate on the basis of these market changes as all employer contribution rates are based on the results of the comPASS modelling which builds in an allowance for future improvements to market conditions. In addition, these rates are finalised within a risk-measured framework as laid out in the Scheme’s Funding Strategy Statement (FSS).

Other events

Other than investment conditions changes above, I am not aware of any material changes or events occurring since the valuation date.

Appendix G: Rates and adjustments certificate

In accordance with regulation 36(1) of the Administration Regulations we have made an assessment of the contributions that should be paid into the Scheme by participating employers for the period 1 April 2014 to 31 March 2018 in order to maintain the solvency of the Scheme.

The method and assumptions used to calculate the contributions set out in the Rates and Adjustments certificate are detailed in the Funding Strategy Statement dated 27 February 2014 and our report on the actuarial valuation dated 27 March 2014.

The required minimum contribution rates are set out in the table below,

Signature:	Julie West
Date:	27 March 2014
Name:	Julie West
Qualification:	Fellow of the Institute and Faculty of Actuaries
Firm:	Hymans Robertson LLP
	20 Waterloo Street
	Glasgow
	G2 6DB

Statement to the rates and adjustments certificate

The Common Rate of Contribution payable by each employing authority under the Regulations for the period 1 April 2014 to 31 March 2018 is 38.2% of pensionable pay (as defined in Appendix B).

Individual Adjustments are required under the Regulations for the 3 year period 1 April 2014 to 31 March 2017 resulting in Minimum Total Contribution Rates expressed as a percentage of pensionable pay are as set out below. As contributions have been agreed for the year ending 31 March 2018, these are also included below.

The contributions shown include expenses and the expected cost of lump sum death benefits but exclude early retirement strain and augmentation costs which are payable by Scheme employers in addition.

Employer code	Employer name	Minimum Contributions for the Year Ending			
		31 March 2015	31 March 2016	31 March 2017	31 March 2018
1	Braddan Parish Commissioners	23.0%	24.0%	25.0%	26.0%
2	Braddan Church, Vicar and Wardens	23.0%	24.0%	25.0%	26.0%
3	Bride Parish Commissioners	23.0%	24.0%	25.0%	26.0%
4	Castletown Commissioners	23.0%	24.0%	25.0%	26.0%
6	Douglas Borough Council	23.0%	24.0%	25.0%	26.0%
7	Leonard Cheshire Foundation	23.0%	24.0%	25.0%	26.0%
8	Malew Parish Commissioners	23.0%	24.0%	25.0%	26.0%
10	Marashen Crescent Housing Committee	23.0%	24.0%	25.0%	26.0%
12	Michael Commissioners	23.0%	24.0%	25.0%	26.0%
13	Northern Local Authorities Swimming Pool Board	23.0%	24.0%	25.0%	26.0%
14	Onchan District Commissioners	23.0%	24.0%	25.0%	26.0%
15	Peel Town Commissioners	23.0%	24.0%	25.0%	26.0%
16	Port Erin Commissioners	23.0%	24.0%	25.0%	26.0%
17	Port St Mary Commissioners	23.0%	24.0%	25.0%	26.0%
18	Ramsey Town Commissioners	23.0%	24.0%	25.0%	26.0%
19	Ramsey and Northern District Housing Committee	23.0%	24.0%	25.0%	26.0%
20	Southern Civic Amenity Site Board	23.0%	24.0%	25.0%	26.0%
21	Southern Local Authorities Swimming Pool Board	23.0%	24.0%	25.0%	26.0%
22	St Peters Church Vicar and Wardens	23.0%	24.0%	25.0%	26.0%
66	Laxey Village Commissioners	23.0%	24.0%	25.0%	26.0%
77	Marown Parish Commissioners	23.0%	24.0%	25.0%	26.0%
78	Castletown & Malew Elderly Persons Housing Board	23.0%	24.0%	25.0%	26.0%
	Non Contributing Members				
5	Crossroad Caring for Careers				
9	Manx Foundation for Physically Disabled				
23	Manx Blind Welfare				
24	Peel and Western District Housing Committee				
25	Department of Tourism and Leisure (Villa Marina)				