

Table of Contents

Pι	ıblic	c Sector Pensions Authority	
Re	epor	rt to Tynwald – June 2016	
		ess and Sustainability of Public Sector Pension Schemes — Revise	-
 1		xecutive Summary	
2	Ва	ackground	3
3	Ad	ddressing The Tynwald Resolution Of December 2014	4
	3.1	Part (a) of the Tynwald Resolution	4
	<i>3.2</i>	Part (b) of the Tynwald Resolution	4
	3.3	Part (c) of the Tynwald Resolution of December 2014	5
	3.4	The concept of a "cost envelope"	5
4	Ag	greements reached with the Pensions Committee for the Unified	Scheme7
	4.1	The recommendations made by TAG	7
	4.2	Effect of the proposed reforms	8
	<i>4.3</i>	What the proposals do not do	9
	4.4	Next steps	10
5	Po	osition on reforms for other Schemes	11
	<i>5.1</i>	Tynwald Members	11
	<i>5.2</i>	Teachers	11
	<i>5.3</i>	Police	12
	5.4	Judicial Pensions	12
6	Su	ummary and conclusions	13

To the Hon Clare Christian MLC, President of Tynwald, and the Hon Council and Keys in Tynwald assembled

1 Executive Summary

The Public Sector Pensions Working Group ("the Working Group") reported to December 2014 Tynwald on the fairness and sustainability of public sector pensions in the Isle of Man. Tynwald noted the report and the resolution arising from the debate requested the Public Sector Pensions Authority (PSPA) to consult on the proposed reforms, to have the actuarial figures independently verified and to negotiate with staff sides if reforms were required. In the July 2015 sitting of Tynwald, it was resolved that the PSPA should conclude the consultation and negotiation process by 31 December 2015 and submit final proposals to Tynwald for approval in February 2016.

Proposals for further reforms to the Unified Scheme have been drawn up by a Technical Advisory Group (of employee and employer pensions and HR specialists) established by the PSPA and have reported back to a PSPA Pensions Committee (comprising representatives of public sector Employers' and Employees') formed to consider the December 2014 Tynwald resolution. The proposals for further reforms to the Unified Scheme have been accepted by the PSPA Pensions Committee with the exception of the unions Prospect and the Prison Officers Association and also accepted by the PSPA (via a majority decision). A summary of the proposed reforms is as follows:

- ➤ An increase in employee pension contributions of 2.5% of pensionable pay across all members, both existing and future new members. The Working Group report proposal was a 3% increase;
- ➤ Benefit reductions for both current members (for future service) and new members (for all service) equivalent to 1.8% of pensionable pay. The Working Group proposal was a benefit reduction equivalent to 1.3% of pensionable pay;
- A future service cost of providing benefits which reduces over the next 15 years, from the current 28.6% of pensionable pay to 26% of pensionable pay (the "cost envelope"), which is in line with the Working Group proposal;
- The Employer's share of the cost of providing benefits reduces from the current 22.5% of pensionable pay to 16.1% of pensionable pay over the next 15 years. Under the Working Group proposal this would have been 15.6% over the next 15 years;
- > The very long term cost of the scheme once all current members have been replaced by new members is 22.5% of pensionable pay with the Employer's share of this cost 15%;
- ➤ The current split of costs between Employees and Employers changes from a 25%/75% split to a 33%/66% split;
- Cost sharing, which is introduced from 2020, will ensure costs remain within the "cost envelope" going forward if future pension costs do increase due to aspects such as continued improvements in longevity.

The above proposals are a significant step to put the Unified Scheme on a more sustainable footing going forward. However, there is still a requirement to address the historic cash flow position i.e. the deficit between income and expenditure for legacy members who have already retired, or will in the medium term be retiring, on higher benefits for their service already completed, where insufficient financial provision has been made in the past. The historic position cannot solely be addressed by penalising current or expected new members. The Treasury has identified options for managing legacy funding issues arising from Public Sector Pensions as part of its medium term financial strategy and it is agreed that continued dialogue will take place between Tynwald Members, the Treasury and the PSPA in order to identify the most appropriate way to manage the issue in the long term.

Recommendations

Tynwald is therefore requested to:

- a) Receive the report of the Public Sector Pensions Authority entitled "Fairness and Sustainability of Public Sector Pension Schemes – Revised Proposals;"
- Endorse the proposals for reform of the Government Unified Scheme through the adoption of a cost envelope approach as recommended by the PSPA's Technical Advisory Group (parts 4.1 and 4.2 of the report);
- c) Endorse the the proposals for reform of the Tynwald Members Scheme (part 5.1 of the report);
- d) Endorse the continued process for negotiating reforms of the Teachers and Police Schemes with a view to consulting on detailed scheme changes and thereafter, preparing formal amendments to be laid before Tynwald for approval (parts 5.2 and 5.3 of the report);
- Request the PSPA to commence reform negotiations with members of the Judicial Pension Scheme once the outcome of the UK judicial review is known (part 5.4 of the report);
- Request the Public Sector Pensions Authority to consult on detailed scheme changes with a view to formal amendments to all schemes being laid before Tynwald for approval by February 2017;
- g) Agree that the options for managing the legacy position in the longer term will be subject to further investigation by the PSPA and the Treasury in conjunction with Tynwald Members and a further report will be submitted to Tynwald for consideration after the General Election.

2 Background

The Public Sector Pensions Working Group ("the Working Group") reported to December 2014 Tynwald on the fairness and sustainability of public sector pensions in the Isle of Man. Tynwald noted the report and the resolution arising from the debate stated that:

"Tynwald takes note of the Public Sector Pensions Joint Working Group report: Public Sector Pensions – Fairness and Sustainability; and calls upon the Public Sector Pensions Authority (a) to undertake a wide and in-depth consultation with all affected staff and staff sides; (b) to commission, in agreement with the staff sides, a suitable person or persons to validate the Hymans Robertson figures contained in the report; and (c) if there are any changes to be made to public sector pension schemes these must be done with consultation and negotiation."

The Public Sector Pensions Authority (PSPA) established a Committee of the PSPA to act upon the resolution in respect of the Government Unified Scheme (GUS). The Committee comprised of representatives of public sector Employers' and Employees' and was jointly chaired by the Minister for Policy and Reform and the Isle of Man Regional Officer of Unite the Union.

Other discussions have also taken place at the same time between the PSPA and employers/staff sides for teachers, police, Tynwald Members and the Judiciary to consider sustainable ongoing pension provisions.

In order to consider the technical pensions aspects of the Working Group proposals, a technical sub-committee (which is now referred to as the Technical Advisory Group or "TAG") was formed by the PSPA Committee, comprising of the employees' side pensions and HR specialists along with representatives of the PSPA, jointly chaired by the Senior Employment Relations Adviser from the Royal College of Nursing and the Executive Director, HR, Isle of Man Cabinet Office. TAG has met on eight occasions and has issued Joint Notices to the Committee and for circulation to affected staff commenting on its work as well as proposing options on further pensions reform to the full Committee.

In the July 2015 sitting of Tynwald, it was resolved that the PSPA should conclude the consultation and negotiation process by 31 December 2015 and submit final proposals to Tynwald for approval in February 2016.

Considerable work has been undertaken by the PSPA Pensions Committee and by TAG to come up with further reform proposals. The purpose of this report from the PSPA (which has been supported by a majority of the PSPA Board) is to confirm those proposals to the June 2016 sitting of Tynwald, in line with the December 2014 and July 2015 Tynwald resolutions.

Jerry Carter – Chair, Public Sector Pensions Authority

3 Addressing The Tynwald Resolution Of December 2014

3.1 Part (a) of the Tynwald Resolution

The PSPA has consulted widely with affected staff and staff sides via the Pensions Committee of Employer and Employee representatives, the issue of Joint Notices from TAG, communication updates to affected staff from the Committee and the provision of website information. Also, separately, there have been some union briefings to their members as well as separate briefings (and workshops) to Members of Tynwald, the Isle of Man Chamber of Commerce and the General Public.

3.2 Part (b) of the Tynwald Resolution

Two actuarial firms were appointed to validate the actuarial figures produced by the PSPA's actuaries, Hymans Robertson, and used as the basis for the recommendations in the Working Group report. The PSPA appointed the Government Actuary's Departments (GAD) to undertake the work and separately, the Employees' Side requested the appointment of another firm (First Actuarial LLP) to undertake the same work and in addition, to provide an opinion on what recommendations they deemed necessary to assist the future sustainability of the Unified Scheme ahead of the first cost sharing review in 2020.

Both firms were content to validate the actuarial figures used by the Working Group in its report. To quote First Actuarial:

"In our opinion, the actuarial figures used in the Joint Working Group report are based on data that is fit for purpose, sound modelling methodology and reasonable assumptions, and can be relied upon to project future cashflows and to determine the "funding gap"."

The reports from GAD and First Actuarial are attached to this report at **Annexes 1 and 2**.

First Actuarial also made the following comments in its report which should be noted by Members:

- ➤ The position of the Isle of Man pension arrangements is unique in that the cashflow position of the Schemes is so important. In other large unfunded schemes, such as in the UK, there is generally much greater flexibility for the Government to meet any shortfalls which may emerge. The Isle of Man does not have this flexibility meaning the Schemes need to be much more self-sufficient. This increases the focus on cashflows;
- ➤ If changes are introduced following the Working Group review, to the extent that these are sufficient to relieve the pressure on the Pensions Reserve, no further contribution changes should be necessary, particularly in the short term and cost sharing need not be introduced before 2020;
- > As we [First Actuarial] have already discussed, any benefit changes are unlikely to have a significant impact on the short-term cost of Schemes. Most of the savings will

come through much later on, once the bulk of the existing members have retired. The intention of the changes here is to ensure the long-term cost of the Schemes is affordable;

- > The only option therefore to meet the short-term funding gap, is to increase contributions to a sufficient level.
- ➤ Benefits should also be reviewed to ensure the long-term cost of Schemes is affordable.

3.3 Part (c) of the Tynwald Resolution of December 2014

At its various meetings, TAG considered in detail the proposals for further reform contained within the First Actuarial and Working Group reports and what changes may be required to the Unified Scheme.

3.4 The concept of a "cost envelope"

It was noted that the Working Group "Fairness and Sustainability" report focused on the cash flow position of the scheme. TAG agreed that the cash flow position is very important and needed to be considered in any reform process. However TAG also noted that it was important to consider the value of benefits that are accrued by members of the schemes, the cost of those future benefits and the share of the cost of providing those benefits between employees and employers/Government. Consideration of both the future cost of benefits and future contributions would then form the basis of considering what was sustainable.

This alternative approach, which has been used in the UK negotiations around public sector pension changes, has led to the implementation of the concept of a "cost envelope" for the schemes.

The "cost envelope" is the value of benefits accrued by scheme members each year expressed as a percentage of their pensionable pay. In the private sector this would be equivalent to the amount of money that has to be paid into the pension scheme each year in order to meet the pension that has been accrued that year when it becomes payable in the future as members retire. The actual value of the benefits will depend on many factors such as members' pay at retirement and how long they live. We cannot be certain what these are in advance, so the figures discussed are estimates based on actuarial assumptions about future experience and those estimates are very sensitive to changes in these assumptions.

Consideration of a "cost envelope" involves a discussion of what a fair and sustainable level of benefits is. Fair and sustainable are also both subjective concepts.

One way of assessing fairness is to look at the "cost envelope" for current arrangements and for equivalent schemes in other jurisdictions though these will only provide broad guidelines rather than objective measures. It had previously been noted by TAG that in comparison with public sector schemes in other jurisdictions, particularly the United Kingdom, the cost of benefits is higher and the share of costs paid by members lower in the Isle of Man, which

reflects the fact that changes made to date have achieved lower cost savings than those made elsewhere. It is also important to look at the "cost envelope" for the proposals in the Working Group "Fairness and Sustainability" report for comparison.

Sustainability can perhaps best be ensured through a mechanism to maintain the "cost envelope" within a certain range no matter what happens in relation to factors such as longevity that might cause the cost of the scheme to rise (i.e. if the cost of providing benefits were to increase, changes to the scheme would be required in order to ensure that the "cost envelope" was not breached).

The "cost envelope" refers to the value of the benefits being accrued. In general, members make a contribution towards the cost of providing benefits through their contribution and employers and/or the taxpayer are responsible for the balance of the cost. A key decision therefore is to identify the ongoing cost envelope that the employers/Government is willing to support as being affordable and sustainable. Then, it is necessary to consider the appropriate means of sharing that cost between members and employers/taxpayers. Whilst such considerations are subjective, the current position and that in other jurisdictions can be used as reference points.

In principle, if a "cost envelope" can be agreed for the various schemes under review then the potential benefit changes that might be required to stay within that "cost envelope" can then be discussed and agreed separately (the "benefit design"). This includes the various recommended changes in the Working Group report. TAG has done a great deal of work on the issue of setting a cost envelope, which has now been used to inform the decisions made by the Committee and by the PSPA on how to move forward on further sustainable changes.

4 Agreements reached with the Pensions Committee for the Unified Scheme

4.1 The recommendations made by TAG

TAG has submitted proposals with regard to future pension reforms under the Unified Scheme within a given cost envelope, which has now been accepted by a majority of the PSPA Board and all of the unions involved in the PSPA Pensions Committee, with the exception of Prospect and the Prison Officers Association. The proposal, which includes a comparison with the previous proposals in the Working Group report, is attached at **Annex** 3. In summary, the proposal recommends:

- ➤ An increase in employee pension contributions of 2.5% of pensionable pay across all members, both existing and future new members. The Working Group report proposal was a 3% increase;
- ➤ Benefit reductions for both current members (for future service) and new members (for all service) equivalent to 1.8% of pensionable pay. The Working Group proposal was a benefit reduction equivalent to 1.3% of pensionable pay;
- A future service cost (the "cost envelope") of providing benefits which reduces over the next 15 years, from the current 28.6% of pensionable pay to 26% of pensionable pay, which is in line with the Working Group proposal;
- ➤ The Employer's share of the cost of providing benefits reduces from the current 22.5% of pensionable pay to 16.1% of pensionable pay over the next 15 years. Under the Working Group proposal this would have been 15.6% over the next 15 years;
- > The very long term cost of the scheme once all current members have been replaced by new members is 22.5% of pensionable pay with the Employer's share of this cost 15%;
- The current split of costs between Employees and Employers changes from a 25%/75% split to a 33%/66% split.

The estimates given above are based on the work and actuarial assumptions used for the 31 March 2013 actuarial valuation of the Unified Scheme.

Additionally, TAG has also included a section on future Cost Sharing in its proposals which recommends that:

- > Future changes in contributions and benefits should only be implemented as a consequence of the operation of an agreed Cost Sharing mechanism;
- ➤ A commitment should be given in the Isle of Man, similar to that given in the UK, whereby any changes that impact on contributions and benefits outside of the

agreed Cost Sharing mechanism could only happen through an affirmative process in Tynwald i.e. via full discussion and agreement in Tynwald.

In summary, the PSPA Pensions Committee has:

- negotiated with the trade unions to move from a position of "no changes at all until 2020" to significant change from an earlier date;
- negotiated to implement both benefit reductions and contribution increases for members which are broadly in line with those recommended in the Working Group report;
- established an ongoing cost envelope for the Unified Scheme of 26.8% of pensionable pay in the short term and 26% in the medium term, against which cost sharing can be introduced and measured from 2020.

4.2 Effect of the proposed reforms

- ➤ The increase in employee contributions of 2.5% improves the short term cash flow into the scheme;
- When this is taken into account with the Employer contribution increases recommended in the Working Group report, agreed by Treasury and being implemented across all Employers' (a 15% employer contribution across all schemes from April 2016 with an increase to 20% in 1% per annum tranches over the subsequent five years), this significantly improves the cash flow position of all schemes. Annex 4 shows the shortfall of projected income against expenditure of public sector schemes over the next 50 years without the Working Group contribution reforms, as prepared by the PSPA Actuaries using the membership and actuarial assumptions from the last formal valuation date (31 March 2013). Annex 5 shows the position after the reforms the solid black line shows the effect of the overall contribution increases, the light-blue line is the Employers' share of the overall contributions and the purple line is the Employees' share. The net shortfall position is therefore much improved after the reforms;
- The Unified Scheme becomes more sustainable going forward: member contributions are increased, the cost of future service benefits is reduced, the cost of benefits to the employer in the medium and long term is reduced whilst the split of future service costs between employees and employers is realigned;
- The further proposed reforms are a move in the right direction cost sharing, which is introduced from 2020, will ensure costs remain within the cost envelope going forward if future pension costs do increase due to aspects such as continued improvements in longevity;
- Benefit reductions are shared by both existing members (for future service) and new members. The original Working Group proposals would have affected new members much more significantly and therefore would have made recruitment of professionals to the Island that much harder. The reforms, which although requiring higher

contributions and lower future benefits, are still comparable in cost and benefit terms with those introduced to UK public sector schemes from April 2015 and therefore should not dissuade professionals from coming to work in the Island.

4.3 What the proposals do not do

- ➤ The proposals above cannot fully address the historic position of the current deficiency between income and expenditure. The process was not intended to do this but rather to address the requirements of the December 2014 Tynwald motion;
- The Island's public service schemes are maturing, which means that the mix of members between contributory and retired is shifting towards having more retired members. In general, this means lower future contributions and higher pensions expenditure. This is a change from the historic position (of many schemes, not just the Island's public sector schemes) where unfunded public sector schemes generally "paid their own way". When this was the case, Government would have benefitted, as pensions income would have broadly matched expenditure and therefore Government used its revenue in other ways besides paying for public sector pensions;
- ➤ Addressing the issue of pensions sustainability is therefore a two part process:
 - ▶ Part One: setting an affordable and, in the long term, reducing cost envelope for the funding of future benefits; setting a reasonable level of employee/employer contributions to meet future benefit payments; determining the ongoing share of costs between employees and employers, and establishing a future cost sharing mechanism to address future pension cost increases. These issues are within the remit of the PSPA and are the basis of the negotiations that have taken place within the PSPA Pensions Committee. These changes impact predominantly on current members and future new members.

Part Two: addressing the historic cash flow position i.e. the deficit between income and expenditure for legacy members who have already retired, or will in the medium term be retiring, on higher benefits for their service already completed, where insufficient financial provision has been made in the past. The historic position cannot solely be addressed by penalising current or expected new members. For example, to completely remove the medium term gap between income and expenditure would require an ongoing **additional** level of member contributions of between 10% and of 20% of pay (on top of their current contributions), depending upon cash flow requirements, which is unaffordable to current and future members. The Medium Term Financial Strategy has identified that the Public Sector Employees Pension Reserve will soon be depleted. By controlling expenditure on public services, the Treasury has accommodated the legacy funding requirements within the revenue account. The options for managing the legacy position in the longer term will be subject to further investigation by the

PSPA and the Treasury in conjunction with Tynwald Members and a further report will be submitted to Tynwald for consideration after the General Election.

4.4 Next steps

If Tynwald approves these revised proposals then the benefit design within the agreed cost envelope will be developed by the PSPA and thereafter, turned into secondary legislation, consulted upon (as required by the Public Sector Pensions Act 2011) and implemented.

The following are benefit design options which are likely to be under consideration as part of future discussion on keeping costs within the agreed cost envelope. Some of the options were raised by the Working Group report and some by First Actuarial as part of their report:

- ➤ Linking Normal Pension Age under public sector schemes to State Pension Age (as they have done in the UK);
- Linking, in the future, the earliest age at which retirement from a public sector scheme can take place to "State Pension Age less 10 years";
- > Changing the rate at which future benefits are built up;
- Changing the Final Pensionable Pay (FPP) definition;
- Capping Pensionable Pay and also pay rises close to retirement for pension calculation purposes;
- Capping future pension increases;
- > Changing the lump sum commutation factor;
- > Tiered pension contributions depending upon level of salary.

Some of the above changes would impact on the future service of current members and some only on new members. Further discussions on benefit design are likely to continue within TAG and a future version of the PSPA Committee if Tynwald approval is given to the Cost Envelope proposal.

Negotiations with regard to the introduction of the additional 2.5% employee contribution increase will also now take place, predominantly through the mechanism of the various Joint Negotiating Committees ("JNCs"). The PSPA Pensions Committee has discussed whether contribution increases should take place only once all current members of GUS have transitioned to their Protected rate of contributions, which will not happen for a significant number of members until April 2018. Thereafter, as part of the introduction of GUS, an undertaking was given that further contribution increases would be introduced in tranches of 1% per annum.

5 Position on reforms for other Schemes

5.1 Tynwald Members

A process of informal consultation has already taken place directly with Tynwald Members and it has been agreed in principle that the changes recommended by the Working Group should be implemented in full. In summary, this means:

- > Tynwald Members will join the Unified Scheme and therefore in future will fall under both the administration and management of the PSPA;
- Current members who are re-elected in September will have the option of Protecting broadly their current benefits and retirement age but subject to a contribution, after transition, of 15% of their Annual Sum – the current contribution is 5% of their Annual Sum;
- Newly elected Members in September will move onto a benefit basis which is 20% lower than the current benefits and in return will pay a contribution of 10% of their Annual Sum with immediate effect. They will also have a higher retirement age and lower spouse's benefits;
- Cost sharing will apply to future benefits as it does to all other Unified Scheme members;
- ➤ Other changes made to the Unified Scheme as a result of the TAG proposal, except the further 2.5% contribution increases, will also be applied to Tynwald Members.

The PSPA has drafted the appropriate legislative changes and has commenced formal consultation on the changes with Members, as required under the Public Sector Pensions Act 2011.

5.2 Teachers

A process of discussion and negotiation on pension reform has been undertaken between the PSPA, the teaching unions and the Department over the last year. Teachers' pensions have always been linked to the UK Teachers Pension Scheme, which underwent reforms in April 2015. Teachers in the Island have also been subject to significant contribution increases over the last three years which broadly means they are already paying more for their pensions than many GUS members. Discussions are ongoing with the teaching unions around three reform options:

- Implementing the UK pension reforms in the Island;
- ➤ Teachers joining GUS, with a Protection option offered to existing teachers to broadly maintain their current benefits and retirement age (but subject to any further agreed GUS changes), whilst new teachers would join the Standard section of GUS;
- > A "middle ground" option whereby teachers remain in their own scheme but the UK reforms are not followed in their entirety and instead, sustainability reforms

along the lines of those agreed for GUS are introduced, including cost sharing and lower benefits for new members.

The teaching unions currently favour the third "middle ground" option and a further meeting was attended on the 1^{st} February to progress the discussions with a view to having a formal proposal agreed, consulted upon and ready to be laid before Tynwald for approval by February 2017.

5.3 Police

The position on police pension reform is not dissimilar to that of teachers in that significant contribution increases have also been paid in line with the UK over the last three years and the PSPA has been discussing with the Police Federation and the Department how further sustainable reforms should be put in place. Again, pension reforms were introduced in the UK from April 2015 and the Isle of Man Police Schemes have tended to follow the UK changes historically.

The Federation and the Department also favour the "middle ground" option highlighted above, with a degree of protection of benefits for existing members with reforms being brought in primarily for new members in order to achieve long term cost savings. Cost sharing will also be introduced across all police pensions. The PSPA and the Police Federation are now in the process of working up what the changes for new members will look like and reforms are expected to be drafted, consulted upon and laid before Tynwald for approval by February 2017.

5.4 Judicial Pensions

A dialogue has commenced between the First Deemster and the PSPA on future pension reform. The Isle of Man Judicial Pension Schemes have also historically followed the comparable UK schemes. There is currently a judicial review of judicial pension reform in the UK and until the outcome of the review is known, there has been limited progress on discussing reform of the Judicial Schemes which has only a small membership of 9 members. However, the PSPA is due to meet with the First Deemster shortly to discuss areas where reforms should be made and to seek his initial views.

6 Summary and conclusions

- ➤ The PSPA has been tasked with addressing the Tynwald motions of December 2014 and July 2015 with regard to the Working Group report. That is to:
 - Undertake a wide and in-depth consultation with all affected staff and staff sides;
 - Commission, in agreement with the staff sides, a suitable person or persons to validate the Hymans Robertson figures contained in the report and;
 - ➤ If there are any changes to be made to public sector pension schemes, these must be done with consultation and negotiation;
 - Conclude the consultation and negotiation process in December 2015 and final proposals submitted to Tynwald for approval in February 2016.
- > The PSPA has complied with the requirements of the two motions.
- The PSPA, via the establishment of a Pensions Committee, has agreed a proposal put forward by a Technical Advisory Group of pension and HR specialists which closely accords to the contribution increases and medium-to-long term cost savings recommended in the Working Group report.
- > The proposal has also been endorsed by the ten trade unions involved in the Committee, with the exception of Prospect and the Prison Officers Association;
- ➤ Discussions and negotiations with other groups outside of the Unified Scheme are advanced, with agreements expected for most schemes, perhaps with the exception of the Judicial Scheme, such that scheme changes can be introduced in a similar timescale to those to be introduced for the Unified Scheme.
- However, addressing the historic cash flow and expenditure issues due to the maturity of our schemes and the high levels of historic benefits will require solutions to be considered which may be outside of the remit of the PSPA and will involve wider consideration of possible non-pension solutions via the involvement of Members of Tynwald, the Treasury and the PSPA.
- The PSPA recommends that Tynwald approves the proposals outlined in this report such that detailed scheme design issues can be agreed for the Unified Scheme and thereafter, the PSPA can draft and consult upon the scheme changes with a view to implementation in April 2017.

Annex 1



Isle of Man Public Sector Pensions Authority
Review of September 2014 Cashflow Modelling Report

Date: 10 August 2015

Authors: Joanne Rigby and Stephen Humphrey



Contents

1	Executive Summary	1
2	Introduction	2
	Background	2
	Scope of advice	2
	Information provided	3
	Third party reliance and liability	4
3	Data	5
4	Assumptions	7
	Financial assumptions	7
	Demographic assumptions	8
	Allowance for new entrants	9
	Best estimate or prudent assumptions?	10
5	Methodology	11
	Summary of methodology	11
	Hymans Robertson team structure and process	12
	Checks and validation	12
	Commentary	12
6	Consideration of Hymans Robertson cashflows spreadsheet	13
	Shape of cashflows and resulting graphs	13
	Comparison with accounting figures as at 31 March 2014	14
7	Sensitivities	15
8	Conclusion	16



1 Executive Summary

- 1.1 This report is addressed to the Isle of Man Public Sector Pensions Authority (IoM PSPA).
- 1.2 GAD has been asked by the IoM PSPA to review the Isle of Man Public Sector Pensions Authority cashflow modelling report of 22 September 2014, produced by Hymans Robertson (and relied on by the Isle of Man Public Sector Pensions Joint Working Group report of December 2014 entitled "Public Sector Pensions Fairness and Sustainability".) GAD has carried out a high level review of the cashflow modelling report, without reproducing the cashflows produced.
- 1.3 Section 2 provides some background and discusses the scope of our report. Section 3 comments on the data used for the cashflow modelling. Section 4 discusses the assumptions used and Section 5 discusses the modelling methodology and processes. Section 6 considers the shape of the main cashflow and pensions reserve graphs produced, and whether the initial cashflows are consistent with other available figures relating to the Isle of Man public sector pension schemes. Section 7 comments on the sensitivities considered by Hymans Robertson and Section 8 concludes our commentary and makes some general points about cashflow projections.
- 1.4 We have no major concerns with the areas reviewed and we are content that the data, methodology and assumptions adopted as a whole are reasonable. The shapes of the graphs considered are reasonable and the initial cashflows produced are broadly consistent with the figures in the GAD report entitled "Isle of Man public service pension schemes accounting figures as at 31 March 2014", dated 13 June 2014 and prepared for Isle of Man Treasury.
- 1.5 However we suggest that the IoM might like to consider whether measures can be taken to improve data quality. There are in addition a few minor issues discussed in the report which the IoM PSPA might like to consider. These are summarised in paragraph 8.2.
- 1.6 It should be noted that cashflow projections are projections, not forecasts. Although the results may be reasonable for the purpose of assessing the shape and broad level of expenditure, the absolute values of the cashflows should be treated with caution.



2 Introduction

2.1 This report has been prepared at the request of the Isle of Man Public Sector Pensions Authority (IoM PSPA). The purpose of the report is to provide the required advice in respect of a December 2014 Tynwald motion (see paragraph 2.4).

Background

- 2.2 The Isle of Man Public Sector Pensions Joint Working Group produced a report to Tynwald in December 2014 entitled "Public Sector Pensions Fairness and Sustainability". This report considered the Isle of Man public sector schemes' actuarial valuations as at 31 March 2013 and put forward recommendations for the future of the Isle of Man public sector schemes.
- 2.3 The Joint Working Group report included references to the Isle of Man Public Sector Pensions Authority Cashflow Modelling report ('the cashflow modelling report') dated 22 September 2014 and produced by Hymans Robertson. Various graphs with the results from the cashflow modelling were reproduced in the Appendices of the Joint Working Group's report.
- 2.4 In December 2014, there was a Tynwald motion including the following wording:

Tynwald takes note of the Public Sector Pensions Joint Working Group report: Public Sector Pensions – Fairness and Sustainability; and calls upon the Public Sector Pensions Authority (a) to undertake a wide and in-depth consultation with all affected staff and staff sides; (b) to commission, in agreement with the staff sides, a suitable person or persons to validate the Hymans Robertson figures contained in the report; and (c) if there are any changes to be made to public sector pension schemes these must be done with consultation and negotiation.

2.5 The IoM PSPA has asked GAD to provide advice in respect of part (b) of the Tynwald motion.

Scope of advice

- 2.6 GAD has reviewed the cashflow modelling report with reference to the following aspects:
 - > Reliability of the data as described in Hymans Robertson's data report.
 - Whether the assumptions, as described in the Hymans Robertson assumptions report, are appropriate.
 - > Whether the modelling methodology and process as described by Hymans Robertson to GAD is appropriate.
 - Whether the broad shape of the main cashflows produced looks reasonable, and whether the resulting graph showing the effect on the pensions reserve looks reasonable considering the cashflows produced.



- Whether the initial cashflows are consistent with the most recent accounting figures in respect of the Isle of Man public sector pension schemes.
- 2.7 The following matters were out of scope of GAD's advice and therefore are not covered in this report:
 - SAD has not produced any cashflows in respect of the Isle of Man public sector pension schemes or attempted to reproduce any of the figures or graphs contained in the cashflow modelling report, with the exception of considering the broad shape of the main cashflows and considering whether the initial cashflows are reasonable compared to the accounting figures.
 - SAD has not considered section 7 of the cashflow modelling report in respect of benefit reform of the Police and Teachers' schemes. However, the main cashflow projections (which GAD has considered) include the Police and Teachers' schemes.
 - SAD has not considered the Isle of Man public sector pension schemes' valuations as at 31 March 2013. We note that the cashflow modelling uses the same assumptions as were used for the valuation and we are content that this is a reasonable approach, but we have not carried out a detailed review of how the valuation assumptions were set.
 - > The projections are dependent on the level of employer contributions. GAD has not been asked to review the mechanism for setting employer contributions.
 - > GAD has not been asked to comment on any of the recommendations or conclusions of the report "Public Sector Pensions – Fairness and Sustainability". GAD's advice is restricted to a high level review of the cashflow modelling report as described above.
- 2.8 This advice should only be considered in its entirety, as individual sections, if considered in isolation, may be misleading, and conclusions reached by review of some sections on their own may be incorrect.

Information provided

- 2.9 GAD has been provided with the following information in respect of this review:
 - > The Isle of Man Public Sector Pensions Authority Cashflow Modelling report dated 22 September 2014 by Hymans Robertson.
 - The Public Sector Pensions Joint Working Group report: Public Sector Pensions Fairness and Sustainability, dated December 2014.
 - > The Isle of Man Public Sector Pensions Authority 2013 Actuarial Valuation Report dated 3 September 2014.
 - > The data report produced by Hymans Robertson dated 16 April 2014 in respect of the data used for the 2013 valuations and 2014 cashflow modelling.



- A description of the modelling methodology used by Hymans Robertson, provided during a meeting between Hymans Robertson and GAD on 2 March 2015.
- The assumptions report produced by Hymans Robertson dated 21 March 2014 in respect of the assumptions used for the 2013 valuations and 2014 cashflow modelling.
- A further note on assumptions by Hymans Robertson, dated 7 May 2014, comparing the valuation and cashflow assumptions with the assumptions used for accounting purposes.
- > A spreadsheet from Hymans Robertson providing the figures underlying the cashflow projections on page 6 of the cashflow modelling report.
- > The GAD report entitled Isle of Man public service pension schemes accounting figures as at 31 March 2014, dated 13 June 2014.
- 2.10 This advice does not represent a full independent audit of the documentation supplied. GAD has relied on the general completeness and accuracy of the information supplied without independent verification. However we note that the documentation provided appears reasonable and we have no reason to think that it is incomplete.

Third party reliance and liability

- 2.11 This report has been prepared for the use of the IoM PSPA. We understand that the IoM PSPA may share this report with Tynwald, Hymans Robertson and the relevant IoM public sector unions. The report must not be reproduced, distributed or communicated in whole or in part to any other person without GAD's prior written permission.
- 2.12 Other than the IoM PSPA and Tynwald, no person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein, and GAD has no liability to any person or third party for any act or omission taken, either in whole or part, on the basis of this report.



3 Data

- 3.1 Details of the data used for the cashflow modelling report were found in the data report produced by Hymans Robertson dated 16 April 2014 and the Isle of Man Public Sector Pensions Authority 2013 Actuarial Valuation Report dated 3 September 2014.
- 3.2 It is not unusual for pension schemes to have data issues. Public sector schemes in particular often receive data from large numbers of employers and it can be difficult for them to obtain a full dataset. In our view the data issues faced in the valuation and cashflow calculations are not unusual for this type of exercise.
- 3.3 We have not seen all the details of the adjustments made to ensure the data was fit for purpose. However, from the descriptions provided, the adjustments made seem appropriate. We have no reason to expect that these adjustments would have significantly distorted the shape of the cashflows produced.
- 3.4 There were a number of changes made to the original data supplied before it was considered to be fit for purpose for the 2013 valuations and the subsequent cashflow modelling. These changes include the adjustments listed below, with the proportion of the membership affected by the adjustments also listed. (This was only possible for adjustments for which numbers of members affected were shown in the data report.)
 - For around 1200 members (around 13% of the active membership or 7% of the total membership) with no service details, estimating service by reference to service in previous data sets.
 - > Assigning an average salary to new joiners with no salary details.
 - > Estimating salaries based on previous data sets for other members with no salary details.
 - Adjusting data to ensure that member statuses were correct as at the valuation date of 1 April 2013. This meant that members who joined the scheme after 1 April 2013 were excluded, and members who changed status after the valuation date were restored to their status as at the valuation date, including any estimation of salary or pension details as required. This affected around 2% of the total membership.
 - Various corrections for active members shown as being past their respective schemes' normal retirement ages.
 - Exclusion of 40 deferred members (around 1% of the deferred membership and less than 1% of total membership) with £0 deferred pensions.
 - Adjustment to part-time hours for 111 actives (around 1% of the active membership and less than 1% of the total membership) to reflect these being casual members.



- 3.5 Given that the accuracy of actuarial calculations relating to the scheme depends on the accuracy of the data provided, we suggest that the IoM PSPA considers if there are any actions it can take to improve the quality of the data. This will help to increase confidence in the results of future actuarial calculations.
- 3.6 We understand that the IoM PSPA is aware of the data issues and has made some improvements recently. The IoM PSPA plans to continue working to improve data quality going forward.
- 3.7 We note that many of the UK public service pension schemes are considering how they can improve the quality of their data. Consideration is also being given to how data issues may impact on the operation of the employer cost cap mechanism.



4 Assumptions

4.1 Details of the assumptions used for the cashflow modelling report were found in the assumptions report produced by Hymans Robertson dated 21 March 2014, the further note on assumptions dated 7 May 2014 and the Isle of Man Public Sector Pensions Authority 2013 Actuarial Valuation Report dated 3 September 2014. The GDP growth assumption is described in the cashflow modelling report.

Financial assumptions

4.2 The main financial assumptions affecting the cashflows are the rates of salary growth and pension increases.

Pension increases

4.3 We understand that pension increases are awarded under IoM statute. For the purpose of the cashflow modelling report, pension increases were assumed to be in line with CPI inflation. The assumption for CPI inflation was 2.0% per annum. This is in line with the long term rate of CPI increases assumed for the 2012 valuations of the UK public service schemes (the short term increases were higher to reflect short term market conditions).

Salary growth

4.4 Salary growth was assumed to be 4.5% per annum. This was based on an assumption of salary increases being 1.5% per annum above RPI inflation, and the gap between RPI and CPI inflation being 1.0% per annum. The long term salary growth assumption for the 2012 valuations of the UK public service schemes was 4.75% per annum, but with short term salary increases lower, to reflect short term market conditions.

GDP growth assumption

4.5 The GDP growth assumption for future years was assumed to be 7.5% per annum. This might be considered high, but we note that it is only used for the affordability measure and so does not affect the main cashflow projections themselves. We understand that the IoM PSPA is moving away from the affordability measure as a criterion for evaluating the cashflow requirement and instead focusing on the expected monetary requirements.

Return on the pensions reserve and discount rate

4.6 The assumed return on the pensions reserve is 5% per annum, net of expenses. This is consistent with the valuation discount rate of 3% per annum net of CPI inflation. It is also consistent with the 3% per annum net discount rate used for the 2012 valuations of UK public service pension schemes. However, actual returns on the pensions reserve will depend on how the pensions reserve is invested. These returns may differ significantly from the rate of return assumed for UK public sector valuations.



- 4.7 As noted by Hymans Robertson in their note on assumptions of 7 May 2014, the discount rate assumption does not directly affect the projection of cashflows. However the return on the pensions reserve will obviously affect those projections which involve the pensions reserve.
- 4.8 We have considered the sensitivity of the projected year in which the pensions reserve would be extinguished to the assumed return on the pensions reserve. For the projection in which 30% of the funding gap is met from the pensions reserve, reducing the return on the pensions reserve to 4% per annum (a reduction of 1% per annum) would bring forward the date on which the pensions reserve would be expected to be extinguished by approximately 1 year.
- 4.9 The other projections would be affected differently if the return on the pensions reserve is reduced to 4% per annum. The projection in which 100% of the funding gap is met from the pensions reserve would be affected to a lesser extent i.e. the date on which the pensions reserve would be extinguished would be brought forward by less than a year. The projection in which 15% of the funding gap is met from the pensions reserve would be affected to a greater extent i.e. the date on which the pensions reserve would be extinguished would be brought forward by a number of years.

General comments

- 4.10 While some of the assumptions are similar to those used in the UK for valuing public service pension schemes, it should be noted that economic conditions may differ in the Isle of Man. We suggest that the IoM PSPA could consider:
 - > whether similar assumptions to the UK are appropriate, and
 - if particular emphasis is put on relatively short timescales, whether more allowance should be made for market conditions, for example resulting in lower salary growth.

Demographic assumptions

4.11 The main demographic assumption affecting the cashflows is life expectancy. Retirement rates and member options such as commutation could also have a significant effect, particularly in the short term.

Life expectancy

4.12 The life expectancy used was based on Club Vita tables which reflect features of the PSPA schemes' membership. Future improvements to longevity are allowed for. There is always considerable uncertainty in life expectancy, but the approach taken does not seem unreasonable.

Age retirement

4.13 The age retirement assumption was mostly based on the earliest age at which members are able to retire from the scheme with no reduction to their benefits.



4.14 However, for those members who have a variable accrual rate in the Government Unified Scheme, the age retirement assumption of age 60 was higher than the earliest age at which unreduced benefits can be taken, age 55. Given that the variable accrual rate is significantly less generous at age 55 than age 60, this seems reasonable. We note that page 13 of the 2013 valuation report includes the results of some sensitivity analysis on the active liabilities where the retirement assumption is varied.

Commutation

- 4.15 We understand that the maximum lump sum available from the GUS schemes is normally around 5.8 x the original pension amount (stated in the GUS member booklet). Given the commutation factor is 18, this results in the maximum commutation being around 32% of the original pension amount. The assumption for the cashflow modelling is that 50% of the maximum is commuted, leading to a commutation assumption of around 16% of the original pension.
- 4.16 This is comparable to the assumption set for the 2012 valuations of the UK public service schemes of 15% of the initial pension being commuted. However the usual commutation factor for the UK public service schemes is 12, so you might expect more commutation in the IoM with a more generous commutation factor. We do not have any experience data in order to assess the actual levels of commutation in the IoM schemes.

Member switching options

4.17 We understand that members in the Protected sections of the IoM Government Unified Scheme are able to switch to the Standard section. No allowance has been made for member switching. This seems reasonable given the relatively small impact such switching is likely to have on the cashflows.

Other demographic assumptions

4.18 The other demographic assumptions do not seem unreasonable, although we do not hold any data for the membership experience of Isle of Man public sector employees to compare them with. We note that the 2012 valuations of the UK public service schemes used scheme-specific demographic assumptions and so this is consistent with the approach taken for the IoM PSPA schemes.

Allowance for new entrants

- 4.19 Hymans Robertson have assumed that whenever a member leaves active service they are replaced by another member on the same salary. We understand from our meeting with Hymans Robertson that the age of such new entrants is chosen to be consistent with the ages that members usually join at.
- 4.20 We note that over the timescales considered in this exercise, the cashflows in respect of new entrants are considerably smaller than the cashflows in respect of the current membership. This assumption therefore seems to be reasonable.



Best estimate or prudent assumptions?

- 4.21 The scheme-specific assumptions chosen for the 2012 valuations of the UK public service schemes are expected to be the actuary's "best estimate". Hymans Robertson have confirmed that the assumptions used for this exercise have been set based on the same principles as those underlying the 2012 valuations of the UK public service schemes and therefore do not include significant allowance for prudence. The assumptions might therefore be considered to be broadly consistent with the UK approach.
- 4.22 Based on the documentation provided, in our opinion, the assumptions as a whole are not unreasonable.



5 Methodology

5.1 The methodology used was described in the cashflow modelling report. Hymans Robertson also described their approach to the cashflow work in a meeting between Hymans Robertson and GAD on 2 March 2015.

Summary of methodology

- 5.2 The following items were projected for the combined PSPA schemes based on the membership data, the benefit structure and the actuarial assumptions:
 - > Pensionable pay
 - > Benefit outgo
 - > Contribution income from members and employers
- 5.3 The difference between benefit outgo and contribution income from members and employers was referred to as the "net benefit outgo". This was expressed as a percentage of pensionable pay and is presented graphically on page 3 of the cashflow modelling report. The cashflow modelling report includes on pages 4-5 a reconciliation of the net benefit outgo graphs with the net benefit outgo graphs presented previously.
- 5.4 An amount deemed to be affordable to the IoM Government was also projected. This was based on the 2005/06 benefits outgo (net of employee contributions) and projected forward using actual GDP growth and the GDP growth assumption. This is presented graphically with net benefit outgo in the cashflow modelling report on page 3.
- 5.5 Monetary values of the projected cashflows and projected (employer and employee) contributions are presented graphically on page 6. The difference between the cashflows and contributions was referred to as the "funding gap" which is also presented graphically on page 6, as a percentage of pensionable pay. The funding gap expressed as a percentage of pensionable pay appears to be the same measure as the net benefit outgo.
- 5.6 A further projection was made of the pensions reserve, which stood at £237m as at 31 March 2014. Different proportions of the funding gap were assumed to be met by the pensions reserve, and a graph was produced (shown on page 9 of the report) of the development of the pensions reserve in these different scenarios.
- 5.7 No allowance has been made in the projections for any of the proposed changes to the pension arrangements (as discussed in the Public Sector Pensions Joint Working Group report) or for the proposed employer cost cap.



Hymans Robertson team structure and process

- 5.8 From our discussion with Hymans Robertson we note the following points:
 - > The cashflows were produced on the Hymans Robertson valuation system, alongside the 2013 valuation calculations.
 - The calculations and initial checks were carried out by a Hymans Robertson specialist valuation team, who have experience with UK public and private sector schemes.
 - The IoM PSPA client team at Hymans Robertson then performed their own checks on the cashflows and used Microsoft Excel to produce the graphs shown.
 - The Hymans Robertson valuation system has been used and tested in respect of previous UK public and private sector scheme calculations. It already had all the necessary functionality required for the cashflow modelling and therefore it was not necessary to carry out any bespoke calculations or adjustments.
 - > Hymans Robertson regularly produce cashflows for clients and so have experience in this area.

Checks and validation

- 5.9 The checks performed by Hymans Robertson included the following:
 - Checking whether the discounted values of the cashflows were consistent with the liability values produced in respect of the 2013 valuation of the PSPA schemes.
 - > Checking whether the cashflows during the first year were reasonable.
 - > Checks against the annual accounts.
 - Checking the shapes of the cashflows against what is normally expected for schemes of similar maturity.
 - > Reconciliation against the cashflows produced in 2013.
 - Checks against the cashflows produced prior to the reform of the PSPA arrangements.

Commentary

- 5.10 The general projection methodology seems reasonable and the processes used appear to be appropriate. The level of checking also seems to be appropriate.
- 5.11 We note that the UK public service pension schemes cashflow projections also include allowance for employer contributions to be treated as income, so the approach taken for the cashflow modelling report is consistent with the UK approach.



6 Consideration of Hymans Robertson cashflows spreadsheet

- 6.1 In this section we have considered the spreadsheet from Hymans Robertson providing the figures underlying the cashflow projections on page 6 of the cashflow modelling report. We have considered whether the broad shape of the cashflows looks reasonable, and whether the resulting graph showing the effect on the pensions reserve looks reasonable, considering those cashflows.
- 6.2 We have also compared the initial cashflows to those estimated from the GAD report entitled Isle of Man public service pension schemes accounting figures as at 31 March 2014, dated 13 June 2014.

Shape of cashflows and resulting graphs

- 6.3 We have considered the shape of the cashflows for the different categories of membership (active, deferred, pensioners, new entrants). These cashflows are illustrated on page 6 of the cashflow report. Hymans Robertson has also provided us with a breakdown of the active cashflows split between past service and future service, and split between pension and lump sum.
- 6.4 We note that there is a high level of cashflows due to active members in the early years of the scheme. This can be explained by some active members in the data being above the age at which they would be assumed to retire according to the assumptions chosen. These members are therefore assumed to retire as at the valuation date in 2013, whereas in practice they might decide to stay in employment slightly longer. Another contributing effect to the relatively high initial active cashflows is the relatively high commutation factor compared to the main UK public service schemes.
- 6.5 In our opinion, the overall shape of the cashflows seems broadly reasonable considering the membership of and maturity of the scheme.
- 6.6 We have also considered the shape of the graph on page 9 of the cashflow report. The lines which illustrate how the pensions reserve might change over time in different scenarios seem broadly reasonable considering the cashflows we have been provided with.

Affordability measure applied to pensions reserve

6.7 We note that the line illustrating projected affordability (in the graph on page 9) assumes that benefits net of <u>member</u> contributions in excess of the affordability measure are met from the pensions reserve. This contrasts to the approach taken for the other lines on this graph, where benefit outgo is considered to be net of <u>member and employer</u> contributions.



6.8 This means the affordability pensions reserve projection is not directly comparable to the other lines on this graph. However, we understand that this is due to the affordability measure implicitly allowing for the amount which the IoM can afford to pay in the form of employer contributions. When considering these projections of the pensions reserve, the approach taken regarding employer contributions should be noted.

Comparison with accounting figures as at 31 March 2014

6.9 The below table compares cashflows estimated from the GAD accounting report with the initial cashflows from the cashflow modelling spreadsheet. The GAD accounting report covers the financial year 2013/14, whereas the initial cashflows are in respect of the financial year 2014/15, and so we would not expect the amounts to match up precisely. However this provides a rough check that the initial cashflows are of the order we would expect.

	GAD estimate 2013/14 £m	Hymans Robertson cashflows 2014/15 £m
Benefit outgo	77	74.6
Total employer and employee contributions	34.9	35.2
Payroll	277.2	269.6
Funding gap	42.1	39.4
Net benefit outgo (as % of payroll)	15.2%	14.6%

- 6.10 The GAD estimates use the benefit outgo and employee contributions from Table A5 of the GAD accounting report and the payroll from Table A6 of the GAD accounting report. The employer contributions are estimated using the relative rates of employer and employee contributions on page 5 of the Joint Working Party report, 6% and 6.4% respectively.
- 6.11 The results above provide reassurance that the initial cashflows are reasonable compared to the accounting figures.



7 Sensitivities

- 7.1 The sensitivities discussed on pages 10-11 of the cashflow modelling report were proposed by Hymans Robertson, and agreed by their client. The sensitivities considered are as follows:
 - > Higher future inflation
 - > Restricted pensionable pay increases
 - > Longer life expectancy
 - > Reduction in new entrants
- 7.2 The sensitivity of the cashflows to changes in the retirement pattern is considered in section 6 of the cashflow modelling report. Members retiring earlier can bring forward cashflows, as (lower levels of) benefits are paid earlier, although the overall cost of benefits expected to be paid may be similar.
- 7.3 The possibility of a change in the rate of employer contributions is not considered, and no allowance is made for the effect of the proposed cost cap (or any other of the proposed changes).
- 7.4 We agree that the choice of sensitivities is appropriate, and the resulting graph on page 11 does not look unreasonable. We agree that over the timescales considered for this exercise, long term variations in life expectancy would only have a small impact.
- 7.5 We note that the actual cashflows would be expected to differ from those projected due to variation in financial and demographic factors. Member options (including age of retirement and amount commuted) may also have an impact on the cashflows in the short term. While the IoM Government may have an influence on options such as age of retirement, an option like commutation is clearly outside government control.



8 Conclusion

- 8.1 We have no major concerns with the areas reviewed and we are content that the data, methodology and assumptions adopted as a whole are reasonable. The shapes of the main graphs produced are reasonable and the initial cashflows produced are broadly consistent with the accounting figures produced by GAD as at 31 March 2014.
- 8.2 We would also like to highlight the following general issues:

Projections, not forecasts

- 8.3 The shape and broad level of the cashflows produced can be helpful when considering the approximate long term cashflow requirements and affordability of the schemes. It should however be noted that cashflow projections are projections, not forecasts. While cashflow projections can provide useful information about the shape of the cashflow distribution, the absolute values of the cashflows need to be interpreted with caution.
- 8.4 Although the results may be reasonable for the purpose of assessing the shape and broad level of expenditure, they might not be appropriate for other purposes. In practice, the cashflows would be expected to differ from those projected due to variation in financial and demographic factors and rate of uptake of member options.

Areas for possible future consideration

- 8.5 The IoM PSPA might like to consider the following points:
 - Whether measures can be taken to improve data quality.
 - Whether particular features of the economy on the Isle of Man are fully reflected in the assumptions.
 - > Whether the assumption for assumed returns on the pensions reserve (5% pa) is appropriate.
 - The assumption for GDP growth (7.5% pa), used for the affordability measure, could be considered to be rather high. This should be taken into account when considering the affordability projections.
 - When considering the projections in the cashflow modelling report, the approach taken regarding employer contributions should be noted, as this varies between different projections. In particular, the affordability projection of the pensions reserve (dotted line in graph on page 9 of cashflow modelling report) is not directly comparable to the other pensions reserve projections in the same graph.



Sensitivity to benefit changes

8.6 Given the long term nature of pension promises, it can take many years before benefits being built up impact a scheme's cashflows. This means that the cashflows in the short to medium term are not very sensitive to benefit changes, particularly if benefit changes are only introduced for new entrants. The main assumptions affecting the cashflows are discussed in Section 4 and the sensitivities are discussed in Section 7.

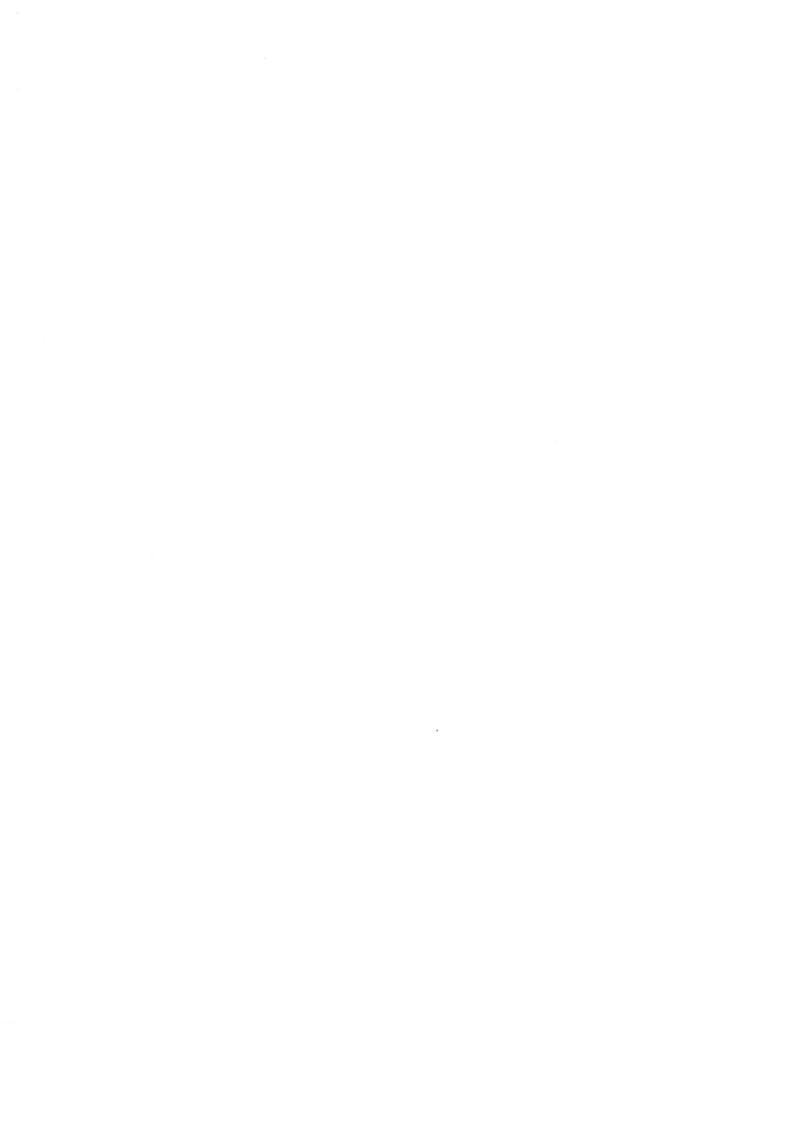
Use of funding gap measure

- 8.7 In our opinion, the funding gap is not necessarily the most useful measure to assess liabilities. For a mature scheme, it is not surprising that benefit outgo is greater than contribution income. While the scheme clearly needs to manage its cash requirements, it is important also to consider the cost of benefits being earned. However, in conjunction with an understanding of the cost of benefits being earned the funding gap measure can be appropriate and helpful when considering cashflow requirements.
- 8.8 We have discussed this point with the IoM PSPA and understand that the IoM PSPA is using a combination of approaches to assess the sustainability of the scheme, including the funding gap and the cost of benefits accruing. While we have not reviewed the Joint Working Group report, we note that various options are under consideration for the PSPA schemes.

Joanne Rigby FIA

Stephen Humphrey FIA

10 August 2015



Pension Review

Rob Hammond FIA 1 September 2015



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Isle of Man Public Sector Pension Authority Pension Review

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Contents

Chapter	Title	Page	
1	Executive Summary	4	
2	Introduction	8	
	Part 1		
3	Development of the Scheme	10	
4	Data	14	
5	Cashflow Modelling - Methodology		
6	Assumptions		
7	Pension Reserve	27	
	Part 2		
8	What Does Sustainability Mean?	34	
9	Changes Suggested in the Tynwald Report 42		
10	Other Options 55		
11	Other Considerations 59		
Appendix A	Documents and Data	62	



1. Executive Summary

This report has been prepared for the Isle of Man Public Sector Pension Authority ("PSPA") to provide a review of actuarial work carried out for the PSPA in relation to the pension arrangements on the Isle of Man. The aim of this report is to review the actuarial work carried out by Hymans Robertson, as well as to provide our opinion on what changes, if any, could or should be introduced. A summary of our conclusions and recommendations is provided in the table below.

Chapter	Conclusions and Recommendations		
2. Introduction	The pension arrangements on the Isle of Man consist of several different pension schemes, the most prominent being the Government Unified Scheme (GUS).		
	Part One		
3. Development of the Scheme	 Whilst we haven't done any detailed analysis of our own into the reasons for the anticipated savings not being realised, we can comment on the suggestions put forward in the JWG report. For example, an extra 35% (85% compared to 50%) of members taking up protection than expected, will have had an adverse impact on the cost of the Scheme. Employer contributions don't appear to be rigorously imposed and so a large portion of the funding (excluding employee contributions comes directly from Government. The "funding gap", which represents the difference between the contributions received and the benefits paid out, has been modelled to be around 23% in the long-term. In the following chapters we seek to validate or dispel the existence of the long-term "funding gap", commenting on the data used, the methodology, the assumptions, and finally the modelling of the Pensions Reserve. 		
4. Data	 In our opinion, the data used for the original projections had some shortcomings. However, in conclusion, we believe that this data was fit for the purpose of producing cashflow projections for the initial review, particularly given the limitations of the data available at the time. The data which has been used in the 2014 (most recent) modelling appears to be vastly improved from that previously used. The revised data has been through a validation process, and some deficiencies in the previous data have been corrected. There are still some uncertainties within the data, but having discussed these with Hymans Robertson, we do not believe these are significant. Without having undertaken our own data validation, we conclude that the data used in the revised projections appears to be a reliable and appropriate data-set for the modelling exercise undertaken. 		
5. Cashflow Modelling - Methodology	 The modelling undertaken by Hymans Robertson prior to 2013 was based on net benefit outgo, alongside an affordability measure to determine the "affordability gap". Under this approach, employer contributions were not clearly defined. The 2013 modelling approach built employer contributions into the projection of net benefit outgo to determine the "funding gap". This results in a much clearer picture of what is required in the future and in our view, is a much more appropriate measure of affordability. In conclusion, we believe the modelling methodology approach adopted in the 2013 modelling together with the concept of the "funding gap" as a measure of affordability to be appropriate. 		

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Chapter	Conclusions and Recommendations
6. Assumptions	 The assumptions used by Hymans Robertson for the revised cashflow projections are those which were used for the actuarial valuation as at 31 March 2013. In our view, this is a reasonable approach. We have reviewed each of the assumptions in turn and believe these to be appropriate for use in the cashflow modelling. We comment further on the investment return assumption for the Pension Reserve in chapter 7.
7. Pension Reserve	 We have been able to broadly replicate the projections carried out by Hymans Robertson and believe the predictions of when the Reserve might run out under different scenarios to be reasonable based on the assumptions adopted. One of the key assumptions is the expected investment return of the Reserve. We have estimated what we believe to be an appropriate return on the Reserve as at 31 March 2013 and this is equal to the return assumed by Hymans Robertson. However, we recommend that this assumption is reviewed with each future projection, as this should be a market related assumption consistent with the expected returns of the investment strategy. We also recommend that, following the outcome of this review, further consideration is given to the investment strategy of the Reserve. This is so that the investment aims of the Reserve can be met and so that the Reserve is managed effectively. Our own sensitivity estimates show that the biggest factor in maintaining the Reserve is reducing the disinvestments required. Finally, we recommend that a formal process is put in place for managing the use of the Reserve.
CONCLUSION	In our opinion, the actuarial figures in the JWG report are based on data that is fit-for-purpose, sound modelling methodology and reasonable assumptions, and can be relied upon to project future cashflows and to determine the "funding gap".

Chapter	Conclusions and Recommendations		
	Part Two		
8. What does sustainability mean?	 The position of the Isle of Man pension arrangements is unique in that the cashflow position is so important. In other large unfunded schemes, such as in the UK, there is generally much greater flexibility for the Government to meet any shortfalls which may emerge. The Isle of Man does not have this flexibility, meaning the Schemes need to be much more self-sufficient. This increases the focus on cashflows. Any changes which are brought in should be fair to the current members of the Schemes. Instead future accrual should be designed to give members an adequate retirement income when taken together with state pension. Member contributions should then be a reasonable proportion of the cost of these benefits. The role of the Pension Reserve must be clarified. We have reviewed the proposed cost sharing mechanism and propose two alternative approaches. The current agreement is that cost sharing will not be introduced until 2020. Depending on the approach taken, earlier introduction may be needed. 		
9. Changes suggested in the Tynwald report	The suggested changes can be broken down into; 1. changes to the contributions designed to improve the short- 2. changes to the benefits designed to improve the long-term of these are summarised below, where green indicates a proposal wamber indicates a fairly material effect, and red indicates a proposal JWG report to Tynwald Increasing employee contributions Increasing employer contributions Reviewing growth rates Removing inflationary increases within Final Pensionable Salary Restricting early retirement Reviewing terms applying to large retirement lump sums Cap pension increases on future benefits	cost of the Schemes. e believe would have a material effe	ect on the cost of the Schemes
10. Other options	Of the changes already considered by the JWG, the only benefit cha some sort of link between pension and longevity. This would serve to recommendation is that this is done by linking NRA to SPA. In order to reduce the level of risk in the Scheme, other key benefit concorded to a capping the level of increases to pensions in deferment. Capping annual salary increases or reviewing the definition of the Reviewing the commutation factors of the Scheme to influential Review the benefits payable upon death or ill-health retiremental throducing a new section of GUS which provides a lower level.	o protect the Scheme from the cost or protect the Scheme from the cost or protect the Scheme from the cost of Final Pensionable Salary. The contract of cash commutation is protected as the commutation.	f improving longevity. Our

Chapter	Conclusions and Recommendations
11. Other considerations	 The new terms for new starters should be incorporated into the cost projections. The future reductions in the size of Government may also have a material effect on the Schemes and should be built into the projections. The effect of the level of transfer out of the Schemes should be considered and incorporated in the projections if appropriate. Transfers to DC Schemes should be stopped. The cost impact of the cessation of contracting-out should be borne in mind when setting contribution rates.
CONCLUSION	 Our key recommendations to assist the future sustainability of GUS ahead of the 2020 cost sharing review are as follows: Formalise the purpose of the Pension Reserve going forwards. In particular; 1. set a target funding gap, which may or may not be 0% 2. establish when the Reserve can be called on and how much can be drawn 3. set the investment strategy of the Reserve aligned to its purpose Agree the approach to cost sharing from 2020, which should take the Pension Reserve into account. Unless cost-sharing is brought forwards contributions from employees and employers need to be increased to ensure the short-term viability of the Schemes. Benefits should be reviewed to ensure the long-term cost of the Schemes is affordable. We recommend the following changes are considered: Change the structure of the Schemes so that the accrual rate and NRA is fixed, thereby giving greater flexibility in determining the cost of members retiring early. The accrual rate should be set such that the expected level of income in retirement is at an appropriate level. Review the definition of Final Pensionable Salary so that it provides an appropriate benefit at retirement. Cap the increases to pensions, both in deferment and in retirement. Increase the Normal Retirement Age and consider linking this to State Pension Age to protect against increases in cost due to longevity improvements.
A. Documents and data	A summary of information used to produce this report.

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2. Introduction

The Government Unified Scheme ("GUS") was introduced on 1 April 2012 and brought together 15 existing public service schemes into one new scheme, introducing a number of significant changes to public service pensions.

As well as GUS, there are several other pension arrangements on the Isle of Man, collectively referred to in this report as "the Schemes". These include the following:

- Police Pension Scheme;
- Teachers' Pension Scheme;
- Non GUS Small Schemes the Tynwald, Judicial 2004 and Manual Workers (No.1) Schemes.

The reform of the Police and Teachers schemes is currently ongoing and the new arrangements are expected to be implemented in April 2016. We understand that consideration is being given to the UK Police and Teachers Schemes, which were introduced in April 2015, although discussions are ongoing.

Of these schemes, GUS is by far the most prominent, accounting for 76% of the past service liabilities and around 82% of the full-time equivalent salaries of the combined Schemes.

The actuarial valuation of the Schemes (the first of GUS) took place as at 31 March 2013. Projections of future cash flows into and out of the Schemes (and out of the Pension Reserve which is used to partially fund the Schemes) suggest that further reforms are required to ensure the Schemes are affordable in both the short and long-term.

The Public Sector Pensions Joint Working Group ("the JWG") provided a report to Tynwald dated December 2014, titled "Public Sector Pensions – fairness and sustainability". That report covered the following:

- Actuarial valuation feedback;
- Feasibility of introducing further cost sharing measures to schemes;
- Feasibility of introducing other measures to schemes to reduce the long term liabilities and to provide for sustainable and fair public service pension schemes;
- Consideration of the report laid before October 2013 Tynwald by the Public Sector Pensions Authority.

We have been asked by the Isle of Man Public Sector Pensions Authority ("PSPA") to do the following:

Part 1 – to validate the actuarial figures used in the Working Group report in line with the Tynwald motion and to investigate, query, validate or dispel those figures in line with the trade unions' request.

Part 2 – First Actuarial are also to provide an opinion on what recommendations they deem necessary to assist the future sustainability of GUS ahead of the 2020 cost sharing review date.

This report addresses both of the above parts. A summary table is provided at the start of each chapter, giving a brief overview, a list of the information reviewed, and our conclusions and recommendations.



PART ONE

3. Development of the Scheme

	This chapter summarises the reforms made in 2012, and sets
Brief overview	out the current position of the Schemes. This includes: A summary of the changes implemented in 2012. A summary of the experience of GUS since it began. The current position of the Schemes.
Information reviewed	 The following documents were reviewed in this chapter: Cashflow Modelling report, dated September 2014. Cashflow Modelling report, draft, dated July 2013. 'Independent Review of Public Servants' Pensions' report by Hymans Robertson, dated May 2008. 'Unified Pension Scheme Design for Public Servants – The Way Forward' report by Hymans Robertson, dated November 2009. 'Variations on cashflow projections' draft paper by Hymans Robertson, dated March 2010. The Public Sector Pensions Joint Working Group Report to Tynwald, dated December 2014.
Conclusions and recommendations	 Whilst we haven't done any detailed analysis of our own into the reasons for the anticipated savings not being realised, we can comment on the suggestions put forward in the JWG report. For example, an extra 35% (85% compared to 50%) of members taking up protection than expected, will have had an adverse impact on the cost of the Scheme. Employer contributions don't appear to be rigorously imposed and so a large portion of the funding (excluding employee contributions) comes directly from Government. The "funding gap", which represents the difference between the contributions received and the benefits paid out, has been modelled to be around 23% in the long-term. In the following chapters we seek to validate or dispel the existence of the long-term "funding gap", commenting on the data used, the methodology, the assumptions, and finally the modelling of the Pensions Reserve.

Summary of changes implemented in 2012

GUS was introduced on 1 April 2012 following a reform process which lasted many years. Hymans Robertson assisted with this process, carrying out a review of the existing arrangements and estimating the cost of various different benefit packages.

It is our understanding that the bulk of this work was carried out in 2008 and 2009, and we have been provided with two reports produced by Hymans Robertson:

- 'Independent Review of Public Servants' Pensions', dated May 2008.
- 'Unified Pension Scheme Design for Public Servants The Way Forward', dated November 2009.

Following this initial review, we understand there were further discussions between the relevant parties, as well as further costings and projections. The current benefit arrangements were agreed upon and broadly the reforms introduced:

- Lower future benefits for new members post April 2012;
- Higher member contributions;
- A protection option whereby members could choose to protect the rate of accrual and pension age under their previous scheme for a higher rate of contribution;
- A higher lump sum/lower ongoing pension option;
- Averaging of final pensionable pay over the last 13 years (rather than the last 3 years);
- Revised ill-health pension with a more stringent test;
- Proposed cost sharing mechanism to be introduced from 2020;
- Concessions for the lower paid and those within 7 years of their current scheme's normal pension age.



Scheme experience since inception

The actuarial valuation of the Schemes as at 31 March 2013 has been completed, and this is the first formal valuation of GUS.

Since the inception of GUS, Hymans Robertson have also undertaken some further cashflow modelling based in 2012. The purpose of the 2012 modelling was to examine how the actual cost of the Schemes compares to the original estimated cost in light of actual experience since the inception of GUS.

The results of the 2012 modelling suggested that the emerging cashflow position of GUS is leading to higher shortfalls than originally anticipated.

We understand that the initial intention of the introduction of GUS was not to bring net benefit outgo below the 'affordability measure', but was to bring about savings that would reduce the gap over time so that in the meantime, any shortfall could be funded by the Pension Reserve.

The Public Sector Pensions Joint Working Group Report to Tynwald dated December 2014 states that some of the anticipated savings from GUS have not been realised for the following reasons:

- "Lower than expected growth in the economy and therefore in expected pension contributions."
- "The new member contribution rate of 5%, in light of subsequent evidence for typical final salary schemes, was too low."
- "More members with secondary pensionable employments than anticipated thus giving rise to higher than expected overall pension liabilities."

- "More members taking up the protection option than anticipated (85% rather than the assumed 50%). This has led to payment of higher benefits in the long term and with insufficient contribution rates."
- "Members have tended to retire at younger ages than expected.
 This has led to an increased expenditure in the last 2 years,
 adversely affecting cashflows."
- "The strain on the Scheme from members within 7 years of retirement has been greater than expected."

Whilst we haven't done any detailed analysis of our own into the possible reasons for the anticipated savings not being realised, we can comment on the suggestions put forward in the JWG report.

For example, the average net cost to the Government (weighted by salary across each Section) of accrual in the protected sections is around 3% of salary. This is chiefly due to the more generous benefits offered in the protected sections. This means that an extra 35% (85% compared to 50% assumed) of members taking up protection more than expected, will have had an adverse impact on the cost of the Scheme.

We understand that the assumption of a 50% take-up of protection reflected the feedback received from discussions the PSPA had with members during the initial review process. The PSPA claims that a significant proportion of members communicated at the time that they did not intend to take up the option of protection. If this was the case, and as the assumption could only be based on information available at the time, then in our opinion this was not an unreasonable assumption to make.



Members within 7 years of the previous scheme's Normal Retirement Age as at 1 April 2012 were able to join a protected section without paying more than the standard contribution rate of 5% pa (or their current contribution rate if higher). So, for this group, the higher than expected take-up rate for protection means that more members than expected opted for better benefits and did not have to pay anything extra to get them.

Under the existing structure, employer contributions don't appear to be rigorously imposed and so a large portion of the funding (excluding employee contributions) comes directly from the Government. The funds available for this funding will depend on the performance of the economy, and so a low level of growth will have impacted on the money going towards the Scheme.

Finally, we understand that member data regarding secondary pensionable employments has historically been very poor. Although we understand that recent improvements in administration systems has greatly improved the quality of this data. However, as a result, additional liabilities have been uncovered which will have worsened the cashflow position of the Schemes.

Current position

The pension arrangements on the Isle of Man are unfunded pension schemes.

This means there is no fund of assets (aside from the Pension Reserve which we discuss later) with which to pay pensions, and so current contributions are used to pay the pensions of those members who have already retired. Therefore, there are two aspects to the ongoing cost of the Schemes:

- 1. The future service cost. This represents the value of the benefits which are currently being built up and which will be paid in the future.
- 2. The cashflows required to pay the immediate benefit obligations of the Schemes. This represents the payment of the benefits already accrued.

So in this sense there is a disconnect. The contributions currently being paid are used to pay for the current benefit obligations in respect of other members, rather than the benefits the members themselves are currently building up. That is, members are paying for the previous generation's benefits, rather than their own.

This can be considered in another way:

- 1. Contributions need to be sufficient to meet the ongoing benefit payments. This makes cashflow one of the most important aspects of the funding arrangements of the Schemes.
- 2. The value of benefits currently being built up (i.e. the future service cost) needs to be low enough so that the cost burden on the next generation, who will be paying for these benefits, is affordable.

Changes which are made to future benefits will reduce the future service cost, but the actual saving will not come through until much further into the future. In the meantime, contributions need to be sufficient to meet the ongoing benefit payments.



Future service costs

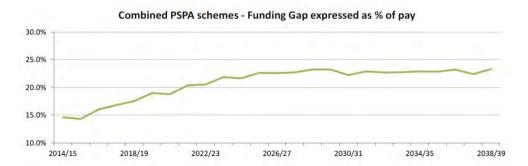
The actuarial valuation of the Schemes as at 31 March 2013 showed that the future service cost of the Schemes, as a whole, was 28.8% of payroll. The future service cost of GUS was 28.6%.

These costs have actually reduced compared to the future service costs calculated as at 31 March 2012, which were 32.6% for the Scheme as a whole and 32.0% for GUS. This reduction is primarily due to changes in actuarial assumptions between 2012 and 2013.

We have been provided with summary data as at 31 March 2014, as provided to GAD for the purpose of the Government's accounts. Using this, we have been able to independently validate the future service costs and can confirm they look reasonable.

Cashflow projections

Whilst the future service cost of the Schemes appears to have reduced, the cashflow projections of the Schemes – which take account of ongoing benefit payments – show a very different story. The graph below shows the projected net benefit outgo of the Schemes as a whole, net of employee and employer contributions.



The graph above is taken from the 2013 modelling carried out by Hymans Robertson and suggests there is a "funding gap" (in terms of the Schemes' cashflows) which levels out at around 23% of payroll in the long-term.

The theoretical cost of the Schemes is the future service cost which was calculated to be 28.8% as at 31 March 2013 for the Schemes as a whole. The average employer contribution rate is currently around 6% (across all Schemes), whilst members are currently paying around 6.4% on average, giving a total of 12.4%. Therefore, the "theoretical gap" between the future service cost (28.8%) and the total ongoing contributions (12.4%) amounts to around 16.4% of payroll.

However, the "funding gap" referred to in the 2013 modelling, represents the difference between the contributions received and the benefits currently being paid out, which has been modelled to be around 23% of payroll in the long-term.

A number of suggestions have been made as to how to deal with this "funding gap" and these are considered in Part 2 of this report.

Firstly, however, in the following chapters we seek to validate or dispel the existence of the long-term "funding gap" and the actuarial figures behind it, commenting in turn on the data used (chapter 4), the modelling methodology (chapter 5), the assumptions (chapter 6), and finally the modelling of the Pensions Reserve (chapter 7).



4. Data

Brief overview	 This chapter examines the data used in the cashflow modelling and costings referred to in the JWG report. This includes: Comments on the data used in the original costings when the new scheme was first set-up. Comments on the data used in the revised costings carried out in 2014.
Information reviewed	 The following documents were reviewed in this chapter: Cashflow Modelling report, dated September 2014. Data report for the 2013 valuations, dated April 2014. Report titled 'Independent Review of Public Servants' Pensions' by Hymans Robertson, dated May 2008. Report titled 'Unified Pension Scheme Design for Public Servants – The Way Forward' by Hymans Robertson, dated November 2009.
Conclusions and recommendations	 In our opinion, the data used for the original projections had some shortcomings. However, in conclusion, we believe that this data was fit for the purpose of producing cashflow projections for the initial review, particularly given the limitations of the data available at the time. The data which has been used in the 2014 (most recent) modelling appears to be vastly improved from that previously used. The revised data has been through a validation process, and some deficiencies in the previous data have been corrected. There are still some uncertainties within the data, but having discussed these with Hymans Robertson, we do not believe these are significant. Without having undertaken our own data validation, we conclude that the data used in the revised projections appears to be a reliable and appropriate data-set for the modelling exercise undertaken.

Cashflow projections

In May 2008, Hymans Robertson undertook a review of the pension arrangements for the Isle of Man Government. They presented their findings in a report dated May 2008. A further report dated November 2009 examined an appropriate design for GUS. We understand these two reports formed the basis of the review going forwards.

In September 2014, Hymans Robertson undertook some revised cashflow modelling for the PSPA to examine the position of the Schemes following its implementation. This is detailed in their report titled 'Cashflow Modelling', which was used in the JWG report to Tynwald dated December 2014.

Original cashflow projections - data

Appendix F and Appendix I of Hymans Robertson's report of May 2008 summarised the data used in their initial review of the pension arrangements. It is our understanding from discussions with Hymans Robertson, that this data was used throughout the review process.

The data used included individual member data as at 31 March 2006, which was provided by the superannuation team of the Isle of Man Government. We understand that, due to the number of different arrangements, and ongoing changes to the administration system, as well as the problems inherent in managing such large public sector arrangements, it was difficult to collate the required data.

However a data-set was used which, having discussed this with Hymans Robertson, we believe was sufficient for the purpose of generating cashflow projections to be used in evaluating the relative merits of different scheme design options.

first actuaria

A full validation of the data was not carried out, although a number of issues were identified. These are summarised below, together with our assessment of the significance using the following key:

Significance of uncertainty	
Impact could be significant	
Impact not likely to be significant	
Impact insignificant	

Description of uncertainty	Action taken	
ACTIVES		
Part-time hours histories incomplete or inconsistent	None	
Salary information missing for 331 members	Salaries approximated by using approximate average salary.	
DEFERREDS		
Files for some scheme leavers were incomplete	None	
ALL MEMBERS		
Have not reconciled membership changes to the previous actuarial review	None	
Assumed active members of the Police, Fire and Judiciary schemes accrue benefits in line with the UK civil service scheme	This is a simplification applying to a small proportion (around 4%) of the total membership.	

Hymans Robertson used a number of estimates and approximations for some of the data, although from our discussions with them, we understand these are not thought to have had a significant impact on the cashflow projections.

In summary, in our opinion, the data used for the original projections had some shortcomings for the following reasons:

- The data used was as at 31 March 2006, and was used to determine the cost of a scheme which was not set-up until 1 April 2012. Therefore it is likely that the data used may have been out-of-date, and more up-to-date data would have given a more accurate representation of the future cost of GUS.
- A full validation of the data was not carried out. Therefore, there
 could have been gaps or errors in the data which were not
 identified, which may have been identified if full validation had been
 carried out. It would have been preferable to use fully validated
 valuation data.
- Several uncertainties in the data have been identified (see table above), some of which have the potential to impact on the cashflow projections.

However, in conclusion, we believe that this data was fit for the purpose of producing cashflow projections for the initial review, particularly given the limitations of the data available at the time.

Revised cashflow projections - data

The revised modelling as at September 2014 was based on the membership data used for the 2013 actuarial valuation of the Schemes. This data is summarised in Hymans Robertson's report, 'Data report for 2013 valuations', dated 16 April 2014.



This data was collected from the new administration system and is considerably improved. This data-set also has the advantage over the original data-set in that it is valuation data which has been fully validated, which provides comfort over its reliability. Indeed the data report states data validation was carried out on individual records and any queries were sent to the PSPA.

Further validation was performed which resulted in the following changes and assumptions being made about the valuation data (again, shown with our assessment of the significance):

Description of uncertainty	Action taken	
ACTIVES		
1,190 active members (13% of active membership) had no service on their records.	Added one year to the 2012 data set, or assumed that part-time hours had continued since date of joining.	
250 active members (3% of active membership) who joined recently had no salary information.	Salaries approximated by using approximate average salary.	
75 members joined after the valuation date.	Members were removed from the data set.	
Several members were missing up-to-date salary data.	Old salary information was sourced and updated in line with pension increase orders.	
A number of members were over their Normal Retirement Age and some were found to be no longer in service.	Pensions were estimated for those now deferred or retired. Deceased members were removed from the data.	

111 members (1% of active These were casual workers and were membership) were allocated given a 2% part-time percentage. 0% part-time percentages. **DEFERREDS** 40 members (1% of deferred Insufficient data meant these members membership) had zero were excluded from the data. deferred pensions. **ALL MEMBERS** 388 members (2% of total membership) changed Status changed back to status at status after the valuation valuation date. date.

In summary, in our opinion, the data used for the revised projections was much improved over the data originally used. This is for two reasons:

- 1. The data was up-to-date
- 2. Data validation was carried out

Therefore, the data as a whole appears to be reliable. Indeed, most of the data gaps from the original projections appear to have been rectified. There are still some uncertainties within the data, as identified by Hymans Robertson and as detailed in the table above. However, these are less significant than those in the previous dataset and we don't believe these will have a material impact on the modelling.

Without having undertaken our own data validation, we conclude that the data used in the revised projections appears to be a reliable and appropriate data-set for the modelling exercise undertaken.



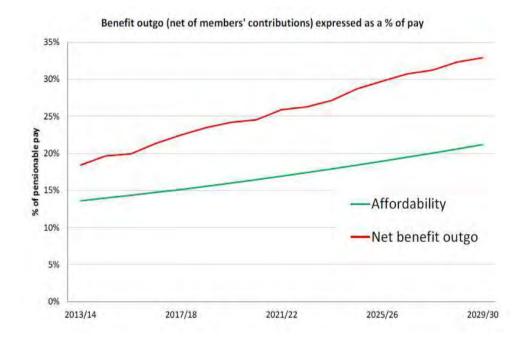
5. Cashflow Modelling – Methodology

Brief overview	This chapter examines the cashflow modelling methodology which has been undertaken so far by Hymans Robertson. This includes: A summary of the cashflow modelling undertaken. Our views on the modelling methodology undertaken.
Information reviewed	 The following documents were reviewed in this chapter: Cashflow Modelling report, dated September 2014. 'Variations on cashflow projections' draft paper by Hymans Robertson, dated March 2010. Joint Working Group report, dated December 2014.
Conclusions and recommendations	 The modelling undertaken by Hymans Robertson prior to 2013 was based on net benefit outgo, alongside an affordability measure to determine the "affordability gap". Under this approach, employer contributions were not clearly defined. The 2013 modelling approach built employer contributions into the projection of net benefit outgo to determine the "funding gap". This results in a much clearer picture of what is required in the future and in our view, is a much more appropriate measure of affordability. In conclusion, we believe the modelling methodology approach adopted in the 2013 modelling together with the concept of the "funding gap" as a measure of affordability to be appropriate.

Cashflow modelling – 2012 projections

It is our understanding that Hymans Robertson produced a cashflow analysis as at 1 April 2012 and presented this in a report dated July 2013.

The purpose of that analysis was to assess whether the reform of the Schemes had led to these being more affordable in the long term. The cashflow projection produced as at 31 March 2012 is shown below.





This modelling was based on the following method:

- Benefit outgo and contribution income for all Schemes was projected using membership data as at 31 March 2012, using assumptions that were adopted for the 2005 actuarial valuation of the Isle of Man pension arrangements.
- The difference between benefit outgo and member contribution income was calculated as the "net benefit outgo", and has been expressed in the above graph as a percentage of pay (red line).
- Employer contributions were not recognised in this projection and were instead included within the "Affordability" projection (see below).
- An 'affordability measure' was derived which represented the level of employer and Government contribution deemed affordable by the Treasury.
- This affordability measure was initially set as part of the affordability analysis carried out for the reform purposes. It was derived from the 2005/06 net benefit outgo and projected forwards based on actual and assumed (7.5% pa) GDP growth. This was assumed to be a proxy for the level of contributions employers and Government would be able to afford in the future. This 'affordability measure' was also expressed in the above graph as a percentage of pay (green line).
- The difference between "net benefit outgo" and the "affordability measure" represents the "affordability gap", or the additional funds which need to be found.

Sensitivities were also produced to analyse the effect of GDP growth being lower than 7.5%, and these were considered as part of the review. Hymans Robertson have since carried out revised cashflow projections based on more recent data, which we discuss below.

Cashflow modelling – 2013 projections

The revised projections produced by Hymans Robertson as at 31 March 2013 are based on the 2013 valuation data (as discussed in the previous chapter), and the 2013 actuarial valuation assumptions (which are discussed in the next chapter).

The 2013 projections take a different approach to expressing net benefit outgo and affordability. Most notably, employer contributions are now included within the net benefit outgo projection. The additional funds which need to be met are represented by the "net benefit outgo". This measure is now referred to as the "funding gap".

The 'affordability measure' which had been used previously, was used partly because of the lack of employer contribution data available at the time. In the absence of this information, this measure was a reasonable proxy for the level of affordability, and the assumption of 7.5% pa growth was not unreasonable given the high levels of GDP growth that had been experienced in the past.

However, now that further data is available, it is our opinion that the 'funding gap' measure is a much clearer representation of the cost requirements. The new projections account more accurately for the employer contributions which are to be paid into the Schemes, and are forward-looking rather than being based on historic benefit outgo.

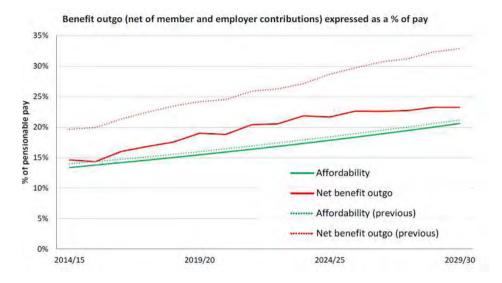
Separating the employer contributions and Government contributions in this way means that the Schemes can be designed to be self-sufficient, without the need for additional government funding.

A detailed analysis of the progression from the 2012 projections to the 2013 projections was carried out by Hymans Robertson, and we describe this below.



Cashflow modelling – analysis of 2012 versus 2013 projections

The cashflow projection produced across all Schemes as at 31 March 2013 is shown in the graph below.



The previous affordability measure is included as a dotted green line for comparison purposes. This shows that the net benefit outgo which needs to be met by **government alone** (employer contributions having already been taken into account in the net benefit outgo) exceeds the previous measure of affordability in every year between 2014/15 and 2029/30.

The key aspects of this graph are the two red lines as these represent the 2012 and 2013 net benefit outgo projections. In their 2014 report, Hymans Robertson explained the difference between the two projections, and we examine these explanations below.

The difference between the 2013 net benefit outgo (solid **red** line) and the 2012 net benefit outgo (dotted **red** line) was broken down into three parts:

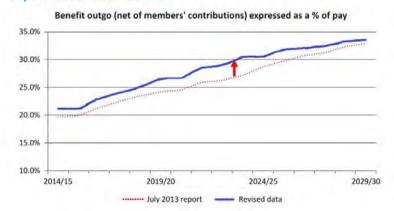
- 1. Impact of 2013 valuation data
- 2. Impact of changing the inflation assumptions
- 3. Impact of allowing for employer contributions

1. Impact of 2013 valuation data

The 2012 projections were based on membership data as at 31 March 2012, whereas the 2013 projections were based on the valuation data as at 31 March 2013.

From discussions with Hymans Robertson, we understand there were some significant issues with the data provided in 2012, and using the more up-to-date data had the effect of increasing the net benefit outgo as shown by the **blue** line in the graph below. We have already commented in the previous chapter on the suitability of the data used in the most recent modelling.

Impact of 2013 valuation data



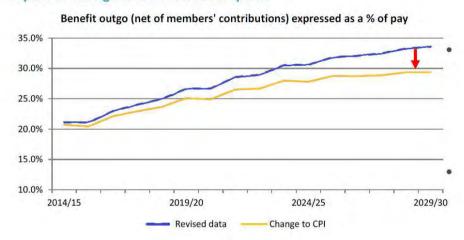


2. Impact of changing the inflation assumption

The initial assumption during the reform process was that the measure of inflation would be the increase in the RPI, which was assumed to be 3% pa in the long term. Therefore, the 2012 projections reflected this approach. The Government's measure of inflation was changed from RPI to CPI during the reform process and the 2013 modelling reflected this change, adopting an assumed rate of inflation of 2% pa.

The result of this change is that future benefits are projected to be lower, and so net benefit outgo has decreased. This is shown in the graph below, and in our opinion the impact looks reasonable.

Impact of change to inflation assumption



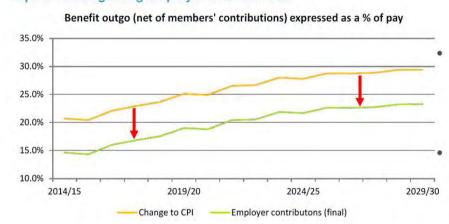
Note: the graph above shows the change as a result of the different inflation assumption, from a starting point of the projections using the new data (blue line) to the **yellow** line.

3. Impact of allowing for employer contributions

As we have already discussed, the 2012 projections made no allowance for employer contributions in the net benefit outgo projection. Instead, there were accounted for implicitly in the affordability measure.

The 2013 projections do make allowance for employer contributions in the net benefit outgo projection. Details of the employer contributions which have been allowed for, are set out in Hymans Robertson's 2014 'Cashflow Modelling' report. The effect of these changes is shown in the graph below, starting from the projections using the new inflation assumption.

Impact of recognising employer contributions

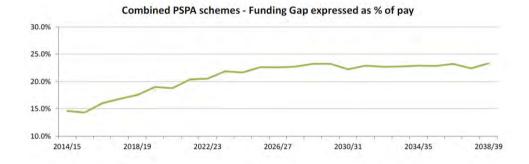


As a quick check, given the average employer contribution is broadly around 6% pa, this is consistent with the reduction shown in the graph above.



"Funding gap"

The **green** line in the graph above represents the projected net benefit outgo under the 2013 projections. This is shown more clearly in the graph below (with all other lines removed).



The graphs above represents the projected net benefit outgo in monetary terms, but expressed as a percentage of payroll. This is the "funding gap" which has been identified as needing to be addressed as part of the proposed reforms.

The graph above shows that the "funding gap" is expected to level off at around 23% of payroll in the long term.

Conclusion

In conclusion, we believe the modelling methodology approach adopted in the 2013 modelling together with the concept of the "funding gap" as a measure of affordability to be appropriate.

This is subject to any issues we have raised in chapters 4 and 6 in relation to the data and assumptions used in the projections.

6. Assumptions

Brief overview	 This chapter examines the assumptions which have been used in deriving the cashflow projections used in the JWG report. This includes: A summary of the assumptions used in the cashflow projections prior to 2013, and the revised subsequent 2013 cashflow projections. A critique of the assumptions used and their appropriateness for the cashflow modelling.
Information reviewed	 The following documents were reviewed in this chapter: Cashflow Modelling report, dated September 2014. Report '2013 Actuarial Valuation – Assumptions', dated 21 March 2014. Report '2013 Actuarial Valuation – Assumptions', dated 7 May 2014. 'Independent Review of Public Servants' Pensions' report by Hymans Robertson, dated May 2008. 'Unified Pension Scheme Design for Public Servants – The Way Forward' report by Hymans Robertson, dated November 2009. Actuarial Valuation Report as at 31 March 2013, dated September 2014.
Conclusions and recommendations	 The assumptions used by Hymans Robertson for the revised cashflow projections are those which were used for the actuarial valuation as at 31 March 2013. In our view, this is a reasonable approach. We have reviewed each of the assumptions in turn and believe these to be appropriate for use in the cashflow modelling. We comment further on the investment return assumption for the Pension Reserve in chapter 7.

Cashflow projections - assumptions

Appendix I of Hymans Robertson's report of May 2008 sets out the assumptions used in their initial review of the Schemes. Further information is provided in Appendix F of the November 2009 report.

It is our understanding from discussions with Hymans Robertson, that these assumptions were used throughout the review process. These assumptions were also those used by the UK Government Actuary's Department ("GAD") for the actuarial valuations as at 31 March 2005 of the public service schemes.

The assumptions used for the revised cashflow projections are those which were used for the 2013 actuarial valuation. Details are provided in the report '2013 Actuarial Valuation – Assumptions', dated 21 March 2014. A summary of the two sets of assumptions is provided below.

Assumption	Initial projections: 2005 assumptions	Revised projections: 2013 assumptions
Discount rate	5.8%	5.0%
Inflation (RPI)	3.0%	3.0%
Inflation (CPI)	-	2.0%
Salary increases	4.5%	4.5%
Pension increases	3.0%	2.0%
Mortality assumptions	PA92 long cohort improvements and age adjustments as appropriate	Club Vita tables, improvements of 1.25% pa

We first consider what we believe would be an appropriate basis for the cashflow projections, before examining each of the key assumptions in more detail.

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Appropriate projection basis

When projecting future cashflows for the purposes of modelling future net income and scheme design, it is important that the assumptions represent a "best estimate" of future experience. That is the cashflows projected are just as likely to overstate as understate the actual cashflows experienced.

Ordinarily when carrying out an actuarial valuation of a funded scheme, the assumptions are required to be "prudent", i.e. to purposely overstate the value of the liabilities in order to give a margin for prudence. Here, the Schemes are unfunded so there are no reserves (prudent or best estimate) and the promised benefits are instead backed by government guarantee.

Therefore, it is appropriate to use best estimate assumptions for the valuation of accruing benefits. Using the same assumptions for the valuation basis and to project future cashflows for modelling purposes is therefore a reasonable approach.

We now consider each of the key assumptions in turn.

Discount rate

In a funded scheme, the discount rate is one of the most important assumptions in the valuation basis. This places a value on the expected future benefits in today's terms, and effectively takes advance credit for the expected investment returns on the assets.

An unfunded scheme does not have a fund of assets and so the discount rate assumption is not relevant in the same way. However, it is still important as it is used to determine the cost of future benefits, although it does not have any connection to the assets of the scheme.

The financial assumptions for the 2012 valuations of the UK unfunded schemes were set in line with guidance from UK Treasury, and this includes the 'Superannuation Contributions Adjusted for Past Experience' ("SCAPE") real discount rate of 3% pa. This real discount rate is the difference between the discount rate and the Consumer Prices Index ("CPI").

This assumption broadly reflects the level of real growth expected in the economy. It was agreed for the 2013 valuation that this assumption was appropriate for the Schemes.

The previous affordability measure used in cashflow modelling was based on future GDP growth of 7.5% pa. This would correspond to a real discount rate of 4.5% pa which would serve to reduce the value placed on the liabilities of the Schemes as at 31 March 2013. In light of the real return agreed with the Isle of Man Government for the 2013 valuation, with hindsight the previous assumption of GDP growth used in the affordability measure looks optimistic.

The key area where the discount rate assumption is used in the cashflow projections is in projecting the future returns on the Pension Reserve. Here, it is very important that the assumption reflects the current and future investment strategy of the Reserve. We consider this in detail in chapter 7.

Inflation - CPI

The inflation assumption is key to projecting the future benefit outgo of the Schemes. Other assumptions such as the level of salary increases and pension increases are based on this assumption.



The report '2013 Actuarial Valuation – Assumptions' confirms that the assumption used is a best estimate of long-term future inflation. The assumption of 2% pa represents the UK Government's long-term expectation for CPI inflation.

This is a different approach to that taken in 2005, where the inflation assumption was derived by looking at the difference between fixed interest and index linked UK gilt yields (i.e. a market estimate of future inflation). Market data as at 31 March 2013 shows a long term estimate for RPI inflation using this approach is 3.7% pa.

We understand that this assumption was discussed with Treasury and it was decided to use the long-term estimate rather than a market based assumption.

Inflation - RPI

Hymans Robertson give their 'best estimate' of the long-term gap between RPI and CPI as 1% pa. This results in an RPI assumption of 3% pa, based on the CPI assumption of 2% pa.

Historic and future expected differences between RPI and CPI imply:

- Historic difference is 0.75% pa;
- The Office for National Statistics ("ONS") suggests the "formula effect" currently explains 1.0% of the difference. That is, the difference due to the different way RPI and CPI are calculated;
- The Office for Budget Responsibility ("OBR") forecast to 2016 shows a difference of 1.3%.

Given the historic and future evidence above, an assumption that the gap between RPI and CPI is 1% pa appears to be reasonable.

The CPI assumption of 2% pa is lower than the market is currently predicting (which would be 2.7%, derived as 3.7% for RPI as at 31 March 2013 less 1%).

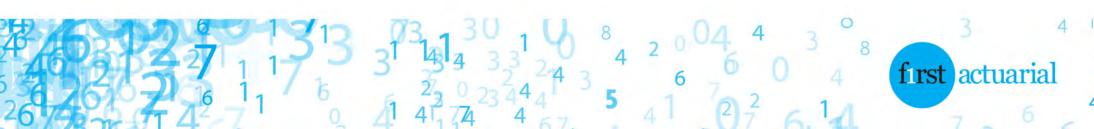
Whilst an assumption in line with the UK Government's long-term expectation is entirely reasonable, an increase in this assumption could be justified. This would serve to increase the value placed on the liabilities, as well as the expected future cashflows.

Salary increases

Both the 2005 and 2013 valuation assumptions set the assumed level of salary increases as 1.5% above the RPI inflation assumption. The PSPA may have a view on whether this is a reasonable level, but in our experience, this does not seem unreasonable in the long-term.

There is also an allowance for promotional increase to salaries in addition, and the combined effect of these may be to overstate total salary increases, and therefore this may merit further investigation. Also UK public sector salary increases are currently restricted. If similar restrictions apply in the Isle of Man in the next few years these could be reflected in the costings.

However, neither of these potential adjustments is likely to significantly affect the funding gap because it affects both the income and benefit outgo. Indeed, sensitivities produced by Hymans Robertson as part of their 2013 cashflow modelling indicate that limiting salary increases to 2% pa, has a negligible effect in the short to medium term, and only a small reduction in net benefit outgo in the long-term.



Longevity

The assumptions for future longevity are another key assumption in projecting future cashflows and the length of time a member will live in retirement can have a material impact.

The 2005 valuation assumption was in line with the PA92 base tables, with a +1 year age adjustment. Mortality improvements were in line with the long cohort mortality projections.

The 2013 valuation assumption is based on the Club Vita tables. This is a fund-specific longevity table based on the specific characteristics of the Schemes' membership. Therefore, in theory, this should give a more accurate estimate of the longevity of the Schemes provided that there is sufficient data on which to draw credible analysis.

The assumptions for future improvements to longevity are based on the CMI 2013 Model. In basic terms, the assumption is:

- The rate of improvements has not yet peaked and so will continue to rise;
- The rate of improvements will stabilise at around 1.25% pa;
- Improvements decline after age 90, and no improvements are seen at ages 120 and over.

Broadly this seems to be a reasonable approach to take. Estimates produced by ONS use a central (best estimate) assumption of 1.2% pa improvements in longevity, and so an assumption of 1.25% pa seems a sensible level.

Cash Commutation

Of the remaining demographic assumptions, perhaps they key one is the allowance for cash commutation. The current assumption is that future pensioners are assumed to elect to exchange pension for additional tax-free cash up to 50% of the maximum amount permitted.

The current cash commutation factor is 18:1. That is, for every £1 given up at retirement, a member receives £18 of tax free cash. Very approximately this might be reasonable for a member aged between 60 and 65, on the 2013 actuarial valuation basis. For anyone younger than this, a factor of 18:1 is penal.

It is common for cash commutation factors to be set on a basis which means that each time a member commutes pension for cash, there will be a saving (on the actuarial funding basis) to the scheme. Having an allowance for cash commutation in the funding basis should reduce the value of the liabilities. Depending on the cash commutation factors, this can have a significant effect.

The factor of 18:1 looks to be broadly cost neutral for a member retiring between age 60 and 65. Therefore for GUS, where sections 1-6 are assumed to retire at age 60, the assumption for commutation should not have a significant impact on the cost of the Scheme.

For those assumed to retire at younger ages, perhaps in the non-GUS Schemes, an assumption for commutation reduces the cost, as the commutation rate is more penal here.



With regards to the cashflows of the Schemes, commutation can have a significant effect as it moves some of the cashflows forwards into one lump sum payment. Therefore, it may be useful to examine the actual experience of the Schemes to determine whether 50% is a reasonable assumption to make for the proportion of pension exchanged for cash at retirement, to ensure that this effect is not underestimated.

Other assumptions

The Scheme Actuary has also made an allowance for withdrawals and ill health retirements.

Allowing for withdrawals reduces the value of the liabilities as pensions increase in deferment in line with CPI which is lower than the salary growth assumption. This will also serve to reduce the long-term cashflow requirements.

The effect on short-term cashflows depends on the assumption for new entrants to the Schemes as this will influence the contributions coming into the Schemes. We understand it is assumed that any leavers are replaced by another member on the same salary and so contributions are assumed to be unaffected. Therefore, it is important the withdrawal decrement is not too high, to ensure long-term cashflows are not underestimated.

Allowing for ill health retirements should increase the value of the liabilities as the value of pension is enhanced in such cases. Cashflow requirements will also increase through paying the pension earlier than expected. It is important this assumption is accurate to ensure cashflows are as good an estimate as possible.

For the assumptions on family details, a varying proportion of members are assumed to be married at retirement or on earlier death. For example, at age 60 this is assumed to be 80% for males and 75% for females. This seems a reasonable assumption, given our experience in advising private sector pension schemes.

The analysis of surplus in the 2013 Actuarial Valuation Report, dated September 2014, shows that variations from the demographic assumptions have had a relatively small effect on the Schemes. However, it may be worth investigating these assumptions further if there is reason to expect a significant shift in future - for example an increase or decrease in the rate of ill health early retirement.

Conclusion

Considering each of the assumptions separately, and then as a whole, we believe the basis used to calculate the cashflow projections is reasonable.



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7. Pension Reserve

Brief overview	 This chapter considers the Pension Reserve in greater depth. This includes: A discussion of the Reserve itself and its intended purpose. Consideration of the projections of the Reserve, and the assumption for expected investment return. A discussion on the investment strategy of the Reserve.
Information reviewed	 The following documents were reviewed in this chapter: Pension Reserve information, provided by Ian Murray. Cashflow Modelling report, dated September 2014.
Conclusions and recommendations	 We have been able to broadly replicate the projections carried out by Hymans Robertson and believe the predictions of when the Reserve might run out under different scenarios to be reasonable based on the assumptions adopted. One of the key assumptions is the expected investment return of the Reserve. We have estimated what we believe to be an appropriate return on the Reserve as at 31 March 2013 and this is equal to the return assumed by Hymans Robertson. However, we recommend that this assumption is reviewed with each future projection, as this should be a market related assumption consistent with the expected returns of the investment strategy. We also recommend that, following the outcome of this review, further consideration is given to the investment strategy of the Reserve. This is so that the investment aims of the Reserve can be met and so that the Reserve is managed effectively. Our own sensitivity estimates, show that the biggest factor in maintaining the Reserve is reducing the disinvestments required. Finally, we recommend that a formal process is put in place for managing the use of the Reserve.

The Pension Reserve

The Schemes operate alongside a Pension Reserve fund ("the Reserve") which is controlled by Treasury. The intention of this Reserve is that it meets any part of the funding gap in any year which cannot be met from the Isle of Man Treasury's general reserves.

One of the key aims should be that calls on the Reserve are minimised so that it is maintained for as long as possible. This is acknowledged in the JWG report which says:

"It should be noted that contribution income under GUS was never expected to rise to such a level that it exactly matched benefit outgo, hence the existence of the Public Sector Employees Pension Reserve Fund ("the Pensions Reserve") which was expected to be used on an ongoing basis to meet any shortfall between pensions income and expenditure, albeit that contribution increases and future lower benefits were designed to prolong the life of the Pensions Reserve."

If repeated calls are made on the Reserve which exceed its investment income, then it will run out, and the funding gap will need to be managed by another method. Either the Reserve will need to be topped up by the Government, or contributions will need to be increased so that they meet benefit outgo.

There appears to be no formal process determining how much should be disinvested from the Reserve to fund pension benefit outgo in any year. We understand the fund is operated at the discretion of Treasury.



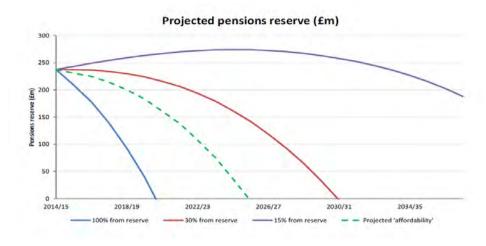
We recommend that a formal process for managing use of the Reserve is put in place. In particular:

- The long term funding aim of the Schemes needs to be agreed.
 I.e. are contributions intended to meet benefit costs, or is the Reserve intended to meet part of this cost on a regular basis?
- The intended long-term purpose of the Reserve should be explicitly stated. I.e. is it formal part of the funding of the Schemes, or is it effectively a backstop to meet volatility in cashflows?
- The scenarios in which the Reserve can be called upon need to be clearly defined and the process for deciding how much can be drawn needs to be formalised.
- The proportion or amount of any "funding gap" to be met by the Reserve needs to be agreed (or at least minimum and maximum parameters should be formally established), with the remainder coming from the Government.

The above will enable the JWG to form a clear plan for the future of the Schemes and ensure that an adequate and rigorous funding plan can be implemented.

The Pension Reserve - Projections

As part of the cashflow projections carried out by Hymans Robertson, they have projected the rundown of the Pension Reserve. The following graph shows the results of these projections as at 31 March 2013 on the 2013 actuarial valuation assumptions.



The **green** dotted line shows the projected Pension Reserve on the assumption that benefits in excess of the assumed affordability measure are met from the Reserve, i.e. assuming the Government will contribute an amount equal to the total employer and Government contribution in 2005/6 increased by 7.5% pa each year. This is in addition to the employers continuing contributions at their current level.

The solid lines are based on alternative scenarios, where a fixed percentage of the projected funding gap is met from the Pension Reserve each year. The remainder of the funding gap is assumed to be met from the Isle of Man Treasury general reserves.

The chart shows that if more than 30% of the projected funding gap is met from the Reserve, then it is expected to be extinguished by no later than 2029.



The projection of the Reserve is effectively a function of the cashflow projections, which we have already discussed. Once the cashflows, and therefore funding gap, has been projected, all that is left to do is calculate how quickly the Reserve will be used in each scenario.

We have been able to broadly replicate the projections carried out by Hymans Robertson and believe the predictions of when the Reserve might run out under different scenarios to be reasonable based on the assumptions adopted.

The Pension Reserve – Investment return assumption

As at 31 March 2015, the value of the Pension Reserve was £226.4 million. The speed at which this fund is expected to be used up will depend on:

- The projected funding gap of the Schemes;
- The assumed investment return on the Reserve.

We have already considered the projected funding gap and so here we consider the assumed investment return on the Reserve. The Reserve is currently invested across two investment managers, and is invested in the following asset classes:

Asset class	Value as at 31 March 2015 (£)	Proportion of Reserve Fund
UK Equities	66,051,255	29%
Overseas Equities	46,976,908	21%
UK Fixed Interest	32,836,221	15%
Overseas Fixed Interest	18,766,116	8%
Cash	49,802,827	22%
Other investments	11,205,275	5%
Total	225,638,602	100%

In their projections, Hymans Robertson have assumed an investment return of 5% pa. This is in line with the 2013 actuarial valuation discount rate, but was not set with reference to the expected return on the individual investments of the Reserve.

A similar approach was adopted in the projections prior to 2013, which assumed an investment return of 5.8% (the 2005 actuarial valuation discount rate).

To consider an appropriate assumption for the expected investment return on the Reserve, we first need to consider sensible assumptions for each asset class.

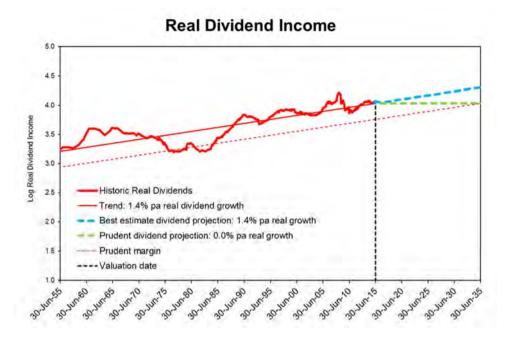
Equities

A best estimate expected return on UK equities can be set by compounding the dividend yield with the RPI assumption, and adding an allowance for future real dividend growth. This method values the expected income on UK equities at their market value.

The adjusted net dividend yield as at 31 March 2013 was 3.21%. The RPI assumption is 3% pa (see chapter 6).

The graph below shows the UK equity dividends from 30 June 1955 to date, and projects them forward to 2035. (For ease of interpretation, the graph is shown on a logarithmic scale.) The solid **red** line represents the overall trend, which suggests a long term average real dividend growth of 1.4% pa above RPI.





Compounding the above factors, together with an expense allowance of 0.5%, generates a best estimate expected return on equities, as at 31 March 2013, of 7.4% pa.

A best estimate return on overseas equities can be assumed to be broadly the same as that on UK equities.

Fixed interest assets

Fixed interest assets usually comprise of gilts, index-linked gilts, and corporate bonds. I consider each of these in turn below.

Gilts and index-linked gilts

The gilt yield is a very low risk rate as it represents a government backed bond. An appropriate, market related assumption may be the Bank of England spot rate less 0.1% for passive management expenses. As we are considering a long term investment, a duration of say 25 years may be appropriate (durations in excess of this are not common in the market).

As at 31 March 2013, the 25 year Bank of England spot rate less 0.1% was 3.3% pa. The expected return on index-linked gilts can be assumed to be broadly in line with the return on gilts.

Corporate bonds

Corporate bonds are considered to be slightly more risky than gilts, as they are backed by corporate debt rather than the government.

A reasonable assumption for the return on corporate bonds is set by reference to the yield on the iBoxx Sterling non-gilt investment grade over 15 years corporate bond index. The yield on this index was 4.1% pa as at 31 March 2013.

To reflect the risk of default (or downgrade below investment grade and consequent sale at a loss) a deduction of 0.3% pa is appropriate. A further deduction of 0.1% pa can also be made to allow for passive management expenses. This gives an assumed return of 3.7% pa.

Cash

A reasonable assumption for assets held as cash is that they will achieve a return in line with the Bank of England's base rate. This was 0.5% as at 31 March 2013.



Expected investment return

We can now use the above assumptions for asset returns and apply them to the current investment strategy to generate an expected return on the Reserve.

In the absence of further information I will assume the following:

- UK fixed interest assets are split 50/50 between gilts and corporate bonds;
- Overseas fixed interest assets will achieve a return similar to that of corporate bonds. This is to allow for the additional risk from investing overseas;
- We understand that 'other investments' include derivatives and structured notes, which are held as part of a Diversified Growth Fund ("DGF"). The aim of a DGF is to achieve equity-like returns but with reduced volatility. Therefore, we will assume that 'other investments' will achieve a return in line with equities.

Applying the assumed investment returns to the investment strategy of the Reserve gives an expected overall return at 31 March 2013 of 5% pa. This is equal to the expected return assumed by Hymans Robertson in their projections. Therefore, we conclude that the assumption adopted for the investment return of the Return is reasonable, and consequently the projections are validated.

However, it is important that if the projections are updated in the future, the assumed investment return on the Reserve should reflect current market conditions. It should also reflect the expected future investment strategy. Therefore, this assumption should be updated for each set of future projections.

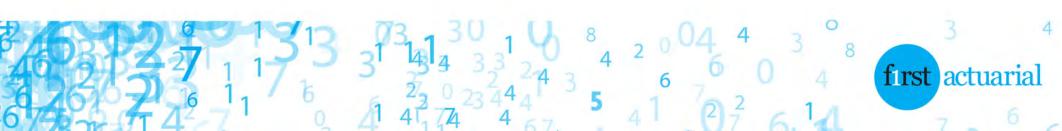
The Pension Reserve – Investment strategy

It is important that the Reserve lasts as long as possible and is managed effectively. The investment strategy forms part of this and we recommend that investment advice is sought on how best to invest the assets held in the Reserve. What follows should not be construed as investment advice, but we have provided our view on the key issues to consider when setting the investment strategy of the Reserve.

Maximising the investment return on the Reserve will ensure that it lasts for as long as possible. From this point of the view, the greater proportion of growth assets that the Reserve holds (such as equities and property) then the higher expected future return. Low growth assets, and in particular cash, will not help to achieve high returns. We note that around 22% of the Reserve is currently invested in cash which will be earning very low returns.

However, whilst it is desirable to maximise the investment returns on the Reserve, it is possible that significant and repeated disinvestments will need to be made from the Reserve. Therefore, it is also important that the return on the Reserve is not overly volatile, and so disinvestments will not 'lock-in' poor returns. Therefore, less volatile assets such as gilts and corporate bonds are desirable from this point of view. It is also important to maintain enough liquid assets so that disinvestments can be made as necessary. In this sense, cash and other readily realisable assets are desirable.

A formal policy on how and when the Pension Reserve will be used will help to align investment strategy more closely with cashflow requirements. The current investment policy may be biased towards lower yielding but more readily realisable assets because of the ad hoc nature of calls on the Reserve.



The Pension Reserve – Sensitivities

The two key factors in the projection of the Reserve are the projected funding gap and the assumed investment return. It is important that the sensitivity of the projected Reserve to these factors is understood.

Whilst sensitivities of the projected funding gap have been provided, for example the effect of inflation being different to that assumed, there are no explicit sensitivities for the projected Reserve. It would be useful to know how these sensitivities translate to the Reserve and the effect on the period over which it is expected to last.

Sensitivities on the proportion of the funding gap to be met have been provided. However, it would be helpful to show some more explicit examples of the sensitivity to alternative conditions.

Using the information provided we have replicated the Pension Reserve projections, and carried out some approximate sensitivities on the investment return. We first considered the position if the Reserve were invested fully in equities, and then if the Reserve were invested in gilts. The table below shows the year in which the Pension Reserve is expected to be used up, under these sensitivities.

	Assumed investment return		
Proportion of funding gap met by the Reserve	3.3% pa (i.e. 100% invested in gilts)	5% pa	7.4% pa (i.e. 100% invested in equities)
100%	2019	2019	2019
50%	2024	2024	2025
30%	2029	2030	2033
15%	2038	2038+	2038+
Reserve remaining at 31 March 2039 (15%)	Nil	£90m	£460m

The following conclusions can be drawn from these figures:

- When the entire funding gap is met by the Reserve, the disinvestments are so significant that the investment return has very little effect on the life of the Reserve, and it is expected it will be used up by 2019 regardless of the investment strategy.
- Disinvestments from the Reserve have to be relatively small for the investment return to have a significant impact on the life of the Reserve. Even when just 30% of the gap is met by the Reserve, around a 4% increase in investment return adds just 4 years to the life of the Reserve.
- Once disinvestments reach a low enough level (around 15% of the funding gap), investment returns begin to exceed disinvestments from the Reserve, and the Reserve continues to grow. This can be seen where 15% of the gap is met by the Reserve, and returns are estimated to be 7.4% pa.

These conclusions imply that the biggest factor in maintaining the Reserve is reducing the disinvestments required, rather than the investment return on the Reserve.

This is not to say the investment strategy of the Reserve is not important. The volatility and liquidity of the Reserve should be managed appropriately, and it is important the Reserve is invested to make best use of the funds.



PART TWO

8. What Does Sustainability Mean?

Brief overview	 This chapter considers the future of the Schemes and the issues which need to be considered to ensure they are sustainable going forwards. This includes: A discussion of the savings which are required. How these savings may be met within the Schemes. Comments on our understanding of the cost sharing mechanism being introduced from 2020. A description of two alternative approaches for how the cost sharing mechanism could operate.
Information reviewed	 The following documents were reviewed in this chapter: Joint Working Group report, dated December 2014. Cashflow Modelling report, dated September 2014.
Conclusions and recommendations	 The position of the Isle of Man pension arrangements is unique in that the cashflow position is so important. In other large unfunded schemes, such as in the UK, there is generally much greater flexibility for the Government to meet any shortfalls which may emerge. The Isle of Man does not have this flexibility, meaning the Schemes need to be much more self-sufficient. This increases the focus on cashflows. Any changes which are brought in should be fair to the current members of the Schemes. Instead future accrual should be designed to give members an adequate retirement income when taken together with state pension. Member contributions should then be a reasonable proportion of the cost of these benefits. The role of the Pension Reserve must be clarified. We have reviewed the proposed cost sharing mechanism and propose two alternative approaches. The current agreement is that cost sharing will not be introduced until 2020. Depending on the approach taken earlier introduction may be needed.

In Part 1 of this report we reviewed the current position of the Schemes and the "funding gap" which has been identified by Hymans Robertson. This was shown to be currently around 15% of pensionable pay, but is projected to eventually rise to 23% of pensionable pay.

In Part 2 of this report we now move on to consider how the identified "funding gap" may be closed.

The required savings

As we have already discussed, the public sector pension provision on the Isle of Man is a collection of unfunded pension schemes.

This means there is no fund of assets with which to pay pensions, and so current contributions are used to pay the pensions of those members who have already retired.

Therefore, there are two aspects to the ongoing cost of the Schemes:

- 1. The future service cost. This represents the cost of the benefits which are currently being built up.
- 2. The cashflows which are required to pay the benefits of the Schemes. This represents the cost of the benefits already accrued.

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The mechanics of the Schemes means that members are paying for the previous generation's benefits, rather than their own. Therefore, in determining the long-term affordability of the Schemes, two things need to be considered:

- 1. That contributions being paid now are sufficient to meet the short-term benefit obligations which have already been accrued. In this sense this is a legacy issue and contributions need to be sufficient to meet these past service benefits.
- 2. The cost of future service benefits, i.e. those that are currently being built up need to be at an appropriate level so that they are both adequate and affordable in the future. So, when benefits are in payment in 30 years' time, say, contribution levels at that time don't have to be set at an unreasonable level to pay for them.

The position of the Isle of Man pension arrangements is unique in that the cashflow position of the Schemes is so important. In other large unfunded schemes, such as in the UK, there is generally much greater flexibility for the Government to meet any shortfalls which may emerge.

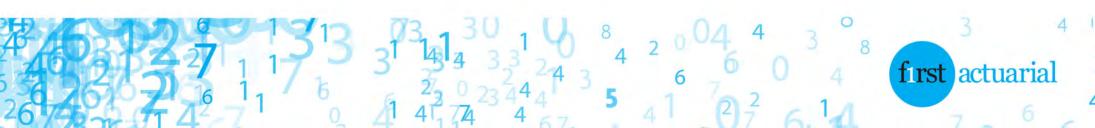
The Isle of Man does not have this flexibility meaning the Schemes need to be much more self-sufficient. This increases the focus on cashflows.

Addressing the problem

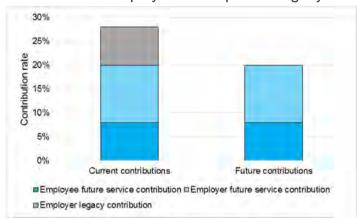
A number of suggestions have been made as to how to deal with the "funding gap" which has been identified and these are considered individually in the following chapters.

Our assessment is based on the following principles:

- The benefits members have accrued should not be cut back. So, for instance, any change to accrual rates, definitions of pensionable pay, taxation treatment of pension commencement lump sums, etc., should apply only to benefits built up in the future.
- Similarly the exercise of member options in respect of accrued benefits (such as the age at which early retirement can be taken) should not be restricted. Restrictions are likely only to delay cashflows rather than reduce the long term cost and can have unpredictable results (such as a rush to retire before new restrictions are imposed).
- The above principles mean that over the short and medium term, the funding gap can only be covered by additional contribution income.
- The role of the Pension Reserve must be clarified. For example, will it make a regular contribution or will it be used only to cover volatility in cashflows so that schemes need to be broadly self-sufficient? This will influence the level of contributions required.
- Employers will underestimate the true cost of employment of new staff if employer and employee contributions do not cover the cost of future accrual. Although ultimately additional employer contribution may have to be supported by the Government, the discipline of having to make realistic contributions will help employers remember these costs.
- Realistic contributions should be far fairer amongst employers than the current system where contribution rates differ greatly in a way which is not necessarily related to the benefits offered.



- The benefits granted for future accrual will largely determine the eventual cost in the longer term. These should be designed to give members an adequate retirement income when taken together with state pension.
- Member contributions should then be a reasonable proportion of the cost of these benefits. It does not seem fair to ask members to pay a contribution which is much higher than value of the benefits they will be receiving themselves. This would effectively be asking them to pay for legacy issues. Therefore, the gap between the current contribution rate and the future service cost needs to be as close as possible, within the objective that contributions meet benefit outgo.
- Member communication will also be crucial. For example, consider members paying 8% pa, while employers pay 20% pa (total of 28% pa). If the future service cost is say 20%, members may feel hard done by if they perceive their contribution is going towards paying current pensions. Instead, this can be viewed as an 8% contribution from the member and a 12% contribution from employers in respect of future service benefits, plus an 8% contribution from employers in respect of legacy benefits.



Cost sharing – proposed mechanism

The rules of GUS set out the broad principles of a cost sharing mechanism (although the Scheme Actuary has considerable discretion in how this operates).

This is the mechanism for sharing any change in the cost of benefits between members and employers. Cost sharing is intended to protect the future sustainability of the Schemes. It was agreed that this mechanism will not be introduced until 2020. In summary the broad principles are:

- The cost of GUS will be examined following each actuarial report, or cost sharing review;
- The Scheme Actuary must produce a recommended contribution rate, to derive a "Cost Change Amount";
- The PSPA will determine which part of this additional cost is met by employers and by members, and this is then split 25%/75% between employers and members.

Crucially, the JWG report states that "...Cost sharing is not therefore an assessment of future cash flow requirements..." Indeed, as part of the detailed design of the Scheme, it was agreed:

- Cost changes would be reflected primarily through contribution rates rather than benefit changes;
- Measurement would be against the underlying cost of benefits (not cash contributions);
- The measurement of factors impacting on cost sharing should be as objective as possible, and not be capable of being influenced by the Government.
- Early action should be taken to ensure costs do not get out of hand.

We now consider some of the key aspects of the mechanism in more detail.

Method for determining the Cost Change Amount

The agreed approach is that measurement of the cost will be against the underlying cost of benefits, rather than cashflow requirements. This might be taken to imply that it is the future service cost which will be used as the cost measure.

The rules of GUS do not specify whether or not past service is to be included in deriving the cost change amount. However, the JWG report states that all service since 1 April 2012 (and any transferred in service) should be included in this cost measure, and the PSPA's sharing proposal suggests that all past service should be included.

There was no evidence of this in the 2013 actuarial valuation report as costs were split into Past Service Liability and Future Service Cost. The mechanism for arriving at the cost change amount, and the extent to which past service is included, should be agreed and documented so that the cost sharing process is clear.

We have already discussed at length in this report the importance of contributions meeting the cashflow requirements of the Schemes. Therefore, it might seem sensible that the "Cost Change Amount" determined as part of the cost sharing mechanism should allow for past service as this will provide a better link to the cashflow requirements compared to solely looking at the future service cost.

However, inclusion of past service in the calculation is likely to greatly increase the volatility of the recommended contribution rate and therefore the "Cost Change Amount".

For example, consider the impact of a pay rise to active members of 10% more than expected in a single year. This has absolutely no effect on the contribution rate needed for future service benefits because the contributions on the additional salary will match the increased benefits due to the extra pay rise.

However, if past service benefits are included within the "Cost Change Amount", then there will be a cost as past service benefits will now be 10% higher than expected and extra contributions will be needed to cover this.

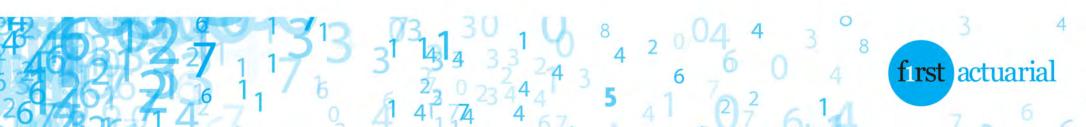
Factors to be covered by the cost sharing mechanism

The following factors have been agreed to be included in the cost sharing mechanism: mortality assumption changes, pay increases, benefit changes, demographic experience and member options.

We would extend this to cover changes in the inflation assumption and inflation experience. Broadly the cost sharing mechanism should cover most changes to the cost of the benefits, except for the change in the discount rate used which does not impact on the actual cost of benefits. To ensure this is the case, at each valuation two costs will need to be derived: the future service cost on the new discount rate and the future service cost on the previous discount rate.

Method for dealing with cost changes

The agreed approach for dealing with cost changes is through contributions rather than benefit changes. We agree with this in principle, as it is not desirable to be persistently changing the benefits of the Schemes. However, it is also not desirable to be continually increasing contributions, or to increase them by large amounts.



Therefore, perhaps it may be appropriate to deal with short-term variations (e.g. higher than expected inflation) in cost through contributions, and long-term shifts (e.g. changes in longevity) through benefit changes.

The key here is to put in place a benefit structure which is designed to reduce the risk of escalating costs. We consider this in later chapters.

Finally, it has been agreed that early action should be taken to avoid an escalation in costs. We agree this to be a sensible approach and that any changes should be implemented as soon as possible following a cost sharing review. We also agree it is sensible to phase in any contribution changes, to avoid excessive pressure on members and to avoid an increase in member opt-outs.

When to introduce cost sharing

The current agreement is that cost sharing will not be introduced until 2020. However, the current JWG review could be viewed as introducing cost sharing earlier if contributions are increased and/or benefits are reduced.

If changes are introduced following the JWG review, to the extent that these are sufficient to relieve the pressure on the Pension Reserve, no further contribution changes should be necessary, particularly in the short term and cost sharing need not be introduced before 2020.

Conversely, if no changes are made as a result of the JWG review, in order to protect the future sustainability of the Schemes, the PSPA might want to consider introducing cost sharing before 2020. As a compromise, it could be agreed that for any cost reviews carried out prior to 2020, only significant cost changes are acted upon. Depending on the approach taken to cost sharing, it may be possible to agree that additional costs arising in this period are met by the Pension Reserve.

Cost sharing – two alternative approaches

The current proposed approach that cost sharing will include some allowance for past service does seem to have introduced some confusion. A clear plan for dealing with changes in both the future service cost and cashflow requirements needs to be made.

We outline below two alternative approaches to cost sharing that attempt to address changes in both the future service costs and cashflow requirements. These are merely intended to provide high-level ideas on how the cost sharing mechanism could operate, and warrant further development and discussion.

Approach 1 – Cost sharing based on future service cost.

This approach assumes that the current JWG review will result in contributions and benefits to be set at a level such that cashflow requirements, both in the short and long-term, should be met in full without the need to draw on the Pension Reserve. That is, the Schemes become self-sufficient.

In doing so, the contribution rate and the future service cost should ideally be as close to each other as possible to ensure the contribution rate is fair to members, but this should be within the remit that contributions are sufficient to meet the cashflow requirements of the Schemes.

With regards to future changes in cost, these can be dealt with in two ways:

- Firstly, any changes in the future service cost (as measured at each actuarial valuation) should be dealt with through cost sharing.
- Secondly, any additional cashflow requirements which arise on an annual basis through volatility of cashflows should be drawn from the Pension Reserve.



To address the disconnect between the change in the cost of future service benefits and actual cashflow requirements from year-to-year, the Reserve can be used to regulate the cashflow requirements.

For example, if the cost sharing review suggested that the future service cost has increased and therefore contributions must also increase, but this occurs at a time when the cashflows do not require it, then the "surplus" cashflow could be used to "top up" the Reserve.

Conversely, if the cost sharing review suggested that the future service cost has reduced and therefore contributions should also reduce, but this occurs at a time when the cashflows do require it, then the Reserve can be used to meet the benefit outgo.

Provided that sufficient changes are made during the JWG review, calls on the Reserve should be limited and it should last long into the future. Eventually, assuming calls are only minor, the investment returns on the Reserve should be enough to meet any net cashflow requirements. The Reserve should eventually grow and grow, merely acting as a buffer for volatility in cashflows.

Cashflow requirements can also be managed by considering the cashflow position when deciding whether to increase (or reduce) contributions or reduce (or increase) benefits.

For example, if the future service cost has reduced but the cashflow position is negative (that is, benefit outgo currently exceeds contribution income), then instead of reducing contributions, future service benefits could be improved – perhaps using the accrual rate as a lever.

This alternative approach is not dissimilar to the current suggested cost sharing mechanism. The key points being:

- Following the JWG review, the Schemes should be set up to be self-sufficient;
- Calls on the Pension Reserve should be limited to short-term volatility;
- Fundamental changes in the cost of future benefits are met through cost-sharing;
- If the cost sharing review suggests contributions need to increase but the cashflow position of the Schemes don't require it, then either the "surplus" cashflow can be used to "top up" the Reserve or the future service benefits are reduced (rather than increasing contributions).

This approach relies on the existence of the Pension Reserve, which we understand is under the control of Treasury. Therefore, assurances would need to be sought that the Reserve would not be taken away.

This approach places greater emphasis on the cashflow requirements of the Schemes, and ensures these can be met whilst maintaining the proposed mechanism for cost sharing to be based on the future service cost of benefits.



Approach 2 – Cost sharing based on cashflow requirements.

Here, cost sharing is based on the cashflow requirements of the Schemes rather than the future service cost.

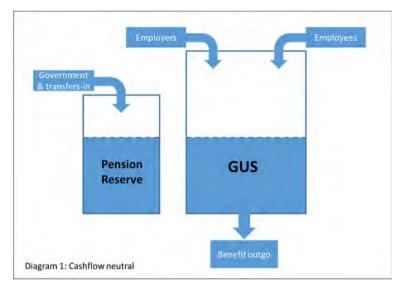
At each actuarial valuation or cost sharing review, cashflow projections should be performed and the Cost Change Amount measured as the additional amount required to meet short-term cashflows (say the period until the next actuarial valuation).

This approach removes the need to consider which factors are included in the measure and which aren't, as the only factor to be considered is the projected cashflow requirement. Any experience to salary increases, mortality, etc., will come through in the cashflow projections.

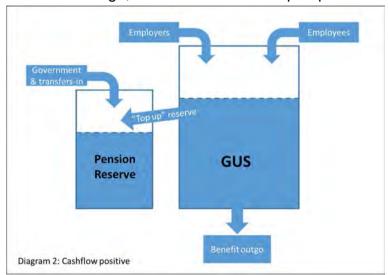
The role of the Pension Reserve under this approach is limited, but it may be agreed that cashflow requirements below a certain level are met by the Reserve. Any requirements above this level can be met through cost sharing. This would cap the calls on the Reserve, ensuring it should grow in the future, and would avoid excessive volatility in the contribution rate.

A further enhancement to this approach would be to direct all Government contributions (including any future transfers-in received) towards the Reserve. This would be with the purpose of establishing the GUS as a semi-funded pension arrangement, so that the Reserve is used to regulate the cashflow requirements of the Schemes.

The diagram below shows the cashflow **neutral** position, where contributions received from employers and employees perfectly matches the benefit outgo. In this scenario, the Reserve is not needed to meet any benefit outgo, but a Government contribution may still be received and/or any transfers-in will be paid into the Reserve.

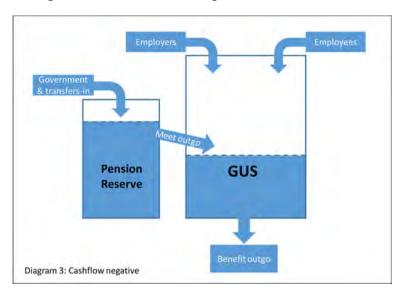


In the diagram below cashflow is **positive**, i.e. contributions received exceed the benefit outgo, and so the excess "tops-up" the Reserve.





Conversely, if cashflow is **negative**, then the Reserve is used to help meet the outgo, as shown in the diagram below.



The key points of this approach are:

- The Schemes should be set up to be self-sufficient;
- Cost sharing is used to address cashflow requirements;
- Calls on the Pension Reserve should be limited, but it may be agreed that it is used to meet deviations below a certain level;
- Government contributions and transfers-in received are directed into the Reserve;
- The extent to which the Reserve is called on and the amount that the Government contributes to the Reserve each year, will be determined by some pre-determined rules;
- Fundamental changes in the cost of future benefits are not directly considered, but should be monitored to ensure this remains appropriate.

This approach does have its limitations.

- **Timing:** In practice, due to the time it may take to produce the projections and introduce contribution increases, it is likely the Pension Reserve will meet the immediate requirements, which will then be reimbursed once the higher contributions kick-in.
- Self-sufficiency: For this approach, the current JWG review takes on an even greater significance, as the projected net benefit outgo needs to be as close to zero as possible to reduce the projected volatility and therefore the need for any future changes to contributions.
- Communication to members: Focussing this heavily on cashflows may also be difficult to communicate to members, and they may be unhappy at being asked to meet the additional cost of funding past service benefits.
- Short-term view: This approach also takes a relatively short term view, with little focus on the long-term cost of benefits. It is important that this is still monitored to ensure the cost of benefits is not deviating from the expected cost too much. If the cost diverges by a certain amount, it may then be appropriate to review benefits again.

9. Changes Suggested in the Tynwald Report

Brief overview	This chapter considers the suggested changes to the Schemes. This includes a discussion of each of the changes in turn as well as our opinion on the merits of each.						
Information reviewed	 The following documents were reviewed in this chapter: Joint Working Group report, dated December 2014. Cashflow Modelling report, dated September 2014. GUS Consolidated rules dated July 2013 						
	The suggested changes can be a change to the contribute short-term cashflow performed as to the benefits term cost of the Scheme These are summarised below proposal we believe would have of the Schemes, amber indicated indicates a proposal which material effect on the cost. JWG report to Tynwald	tions designed osition of the S designed to imposes. The symmetric designed to impose the symmetric designed to the symme	to improve the chemes prove the long- en indicates a fect on the cost erial effect, and				
Conclusions and recommendations	Increasing employee contributions	✓	✓				
recommendations	Increasing employer contributions	✓	✓				
	Reviewing growth rates	×	✓				
	Removing inflationary increases within Final Pensionable Salary	×	✓				
	Restricting early retirement	✓	✓				
	Reviewing terms applying to large retirement lump sums	✓	✓				
	Cap pension increases on future benefits	Cap pension increases on					

As we discussed in the previous chapter, when considering the sustainability of the arrangements two things need to be considered:

- 1. That contributions being paid now are sufficient to meet the **short-term** benefit obligations which have already been accrued.
- 2. The cost of future service benefits need to be at an appropriate level so that they are affordable in the **long-term**.

We now consider the changes that were suggested in the JWG report to Tynwald and separate these into changes which will aim to meet these two issues. The table below summarises and splits these out.

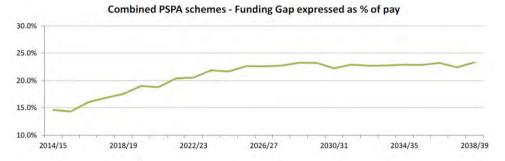
JWG report to Tynwald	Short term	Long term
Increasing employee contributions	\checkmark	\checkmark
Increasing employer contributions	✓	✓
Reviewing growth rates	×	✓
Removing inflationary increases within Final Pensionable Salary	×	✓
Restricting early retirement	✓	✓
Reviewing terms applying to large retirement lump sums	✓	✓
Cap pension increases on future benefits	×	✓

We recommend cashflows are projected allowing for the proposed changes to assess the effect on the "funding gap". In particular, it would be useful to see the effect on cashflows of each of the suggested changes to deem how material each of these are.



Meeting short-term benefit obligations

The projected funding gap, expressed as a proportion of pensionable pay, is shown below:



The current gap (as at 2014/15) is around 15% of pensionable pay, but this soon increases to around 20% by 2021, before levelling off at around 23% in 2025.

Current combined employee and employer contributions are on average around 12.4% of pensionable pay, implying the current cost of paying benefits is around 27.4% (12.4% + 15%). The long term cost would then be 35.4% of pensionable pay (12.4% + 23%). If you compare this to the future service cost identified in the actuarial valuation of the Schemes as at 31 March 2013 (28.8%), then you can see that the cost of the more expensive benefits already accrued is expected to remain a factor in the scheme cashflow for a long time into the future.

Eventually, when the only benefits in the Schemes are those on the current benefit structures, all other things being equal we would expect the Schemes to reach a steady state and the cost of benefit outgo to be somewhere between 24% (the future service rate for Section 1 of GUS) and 28.8% (the future service rate for the current mix of GUS)

Sections plus the other Schemes). On the current contribution rates, this implies a "funding gap" of between 11.6% and 16.4% (24% and 28.8% - 12.4%). Therefore, if you project the above graph even further into the future, we would expect the gap to eventually come down from 23% to somewhere in this range.

For now though the cost of accrued benefits remain and these need to be funded. Any changes to the benefits will not have an immediate material effect, as they will not come into payment until sometime in the future. The only option therefore to meet the short-term funding gap, is to increase contributions to a sufficient level.

Contribution increases

If contributions are to be increased, then the aim of this process should be to determine adequate contributions to meet the ongoing benefit obligations of the Schemes so that further changes to contributions are not required in the future.

That is, the cashflow requirements of the Schemes should be addressed now to ensure their short-term future, with changes to the benefits ensuring that their long-term future is also secured.

The key suggestions in the JWG report are as follows:

- 1. Increase employee contributions by 3% of pensionable pay.
- 2. Set employer contributions at 20% of pensionable pay.

We understand the average employer contribution rate is currently 6% of pensionable pay, so the above changes would bring in an extra 17% of pensionable pay each year. These changes would likely be phased in (see below) and so would not be immediate. This would appear to broadly address the short term "funding gap" of 15-20% and make a substantial contribution to the longer term 23% gap.



We now consider each of the above recommendations in turn.

Is increasing employee contributions by a flat 3% of pensionable pay fair?

We have considered only GUS in detail in this section because benefit and contribution changes are still under discussion for the other Schemes.

There are currently seven sections of GUS. The first of these is the standard scheme which is where new members enter. The remaining six sections are for those members who have retained protected benefits from their previous schemes. Each section pays a different rate of contributions, as shown below:

Section	Number	Contribution
Standard	1	5.0%
	2	7.75%
	3	9.75%
Protected	4	6.60%
Protected	5	9.50%
	6	8.40%
	7	11.0%

New members currently pay a contribution of 5% of pensionable pay. The suggestion is that new members should begin paying contributions immediately at 8% of pensionable pay. Existing members will also see an increase of 3% on their existing contribution rates, with the increase to be phased in over 3 years in 1% increments.

These changes are proposed to be replicated across the Police, Teachers and Judicial Schemes. Alternative contribution increases are proposed for the Tynwald Members Scheme, although we do not consider these further here as these changes are far less material to the funding requirements of the Schemes as a whole.

A 3% increase across the board would increase the average employee contribution rate from 6.4% to 9.4%. Coupling this with an employer contribution rate of 20%, gives a total contribution of 29.4%. This compares to the cost of future service benefits identified in the actuarial valuation of 28.8% and so does not seem unreasonable. That is the total contributions being paid in are reasonably comparable to the benefits currently being built up, but have been designed to meet the current benefit obligation too.

Looking at the individual sections of GUS members, the current scale of member contributions is (very) broadly fair with an average member paying between 21% (Section 1) and 32% (Section 5) of the total cost of their accruing benefits. Adding 3% to member contributions would result in the average member paying between 30% (Section 7) and 43% (Sections 5 and 6) of the cost of their accruing benefits, with those in Sections 1 to 4 of the GUS (the sections containing most of the members) paying between 33% and 39% of the value of their accruing benefits.

From a benefit design point of view therefore the member contributions rates proposed are not unreasonable compared with the benefits accruing. Before plans are finalised the above figures should be recalculated allowing for any changes proposed to benefits accruing in future to make sure the members' share of the cost is still reasonable.

When GUS was introduced, a mechanism was established to share future cost increases between employers and members, with the employer bearing 25% and the members bearing 75% of any increase in the cost of future service benefits revealed in the triennial actuarial valuation. It was also agreed that members will not bear any cost sharing increase in contributions before 2020.



Whilst it is unfortunate that changes are required before 2020, they are necessary to meet the benefit obligations of the Schemes. Indeed the total increase in contributions (on average) is 17%, of which employers are meeting 14%. This equates to 82% of the increase, which is well above the 25% defined by cost sharing.

So subject to re-checking the reasonableness of the increase allowing for any proposed benefit changes, it is our opinion that on this basis an increase of 3% for members does not seem unreasonable provided a reasonable phasing in approach is implemented. It should be noted that this increase will apply to all members, including those within 7 years of retirement in 2012.

Again, communications here will be key. It will be clear to members that this increase is not a normal cost sharing increase as the 2013 actuarial valuation actually shows a decrease in the cost of future service benefits. We would recommend that the reasons to the need for this increase should be fully explained to members to reassure them that it is a one-off situation and in future only variations arising from experience will cause their contribution rate to change.

An important factor which mustn't be underestimated, is the effect that these changes will have on member behaviour. For example, the changes may lead to an increase in early retirements. This would cause the short-term benefit outgo to increase to a level greater than expected. This can be managed somewhat, and we consider this later in this chapter. However, again, it is important that cashflow projections modelling this possibility are considered.

Increase employer contributions to 20% of pensionable pay

Currently employer contributions into GUS range from 0% to 22.1%, with the average being 4.7%. The average across all Schemes is 6% of pensionable pay. The system for determining and paying contributions is not well defined, and pension costs are often met by the Government rather than departmental budgets. Paragraph 20 of the JWG report states:

"A proposal for applying full cost pension accounting was discussed by the Working Group, whereby all employers would have a separate ring fenced budget for staff costs from which they would pay contributions towards the cost of providing a pension for their employees.

"This would facilitate wider discussion around the removal of the headcount mechanism and enable resourcing to be based purely on a financial control rather than headcount. Departments would therefore be able to increase staffing resources without the restriction of the headcount, but only if they had the budgetary resources to do so, inclusive of the cost of providing pensions."

Whilst we are not in a position to comment upon human resource policies and the determination and use of departmental budgets, we strongly agree that employers should be required to pay for the cost of pension provision for their employees directly.



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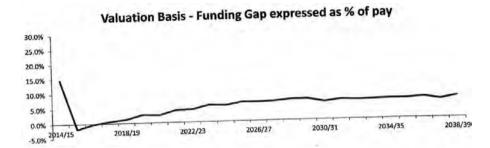
Adopting such an approach, with a uniform rate of employer contribution has the following advantages:

- Adopting a more formal approach makes the funding plan of the Schemes clearer as income is more clearly defined.
- Greater transparency in the cost of the Schemes will aid communications with members and will help them to understand the value of the benefits. This will help in communicating the employee contribution increase, and perhaps in improving rates of membership.
- The joint effect of the changes is a higher defined employer contribution rate (20%). This will greatly reduce the existing "funding gap".

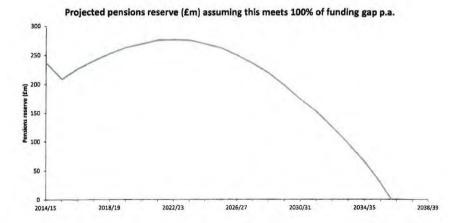
The suggestion is that employer contributions are initially set at 15%, with the remaining 5% being phased in over 5 years. We have already discussed the suitability of the new total contribution rate of around 29.4%. The bulk of the increase is to come from employers (14% of the 17% average increase). We feel this is an appropriate change, as the existing employer contribution rates are far below that of comparable private sector schemes and that warranted from a scheme providing this level of benefit.

Indeed a common rule of thumb when advising private sector schemes, is that employer contributions may be roughly in the region of twice that of employee contributions. Under the new arrangements, employers would be paying 20%, and employees paying 9.4% on average. This gives a ratio of 2.1:1 which seems a reasonable approach to take.

It may be that employer contribution rates are allowed to vary between Schemes and sections, depending on the benefit provided. However the average should remain at 20% of pensionable pay. Allowing for the above changes to contributions, Hymans Robertson have projected the revised "funding gap" which is to be met by either changes to the benefit outgo, the Pension Reserve, or the government. This is shown below.



Initially, the changes would create a small cashflow surplus, although this will soon be eroded by around 2017. The funding gap will then increase to a long term rate of 6% (23% - 17%). This is projected to have a significant effect on the calls on the Pension Reserve and the projections by Hymans Robertson show that this should then last until around 2037 (see below).



Managing long-term costs

As we have already discussed, any benefit changes are unlikely to have a significant impact on the short-term cost of the Schemes. Most of the savings will come through much later on, once the bulk of the existing members have retired.

The intention of the changes here is to ensure the long-term cost of the Schemes is affordable. There are five key changes which have been suggested and we consider each of the following in turn:

- (1) Move the current growth rates upwards by 5 years such that the current level of benefits achieved at age 65 would not in future be achieved until age 70.
- (2) Remove the inflationary increases that apply to the current final pensionable salary calculation.
- (3) Restrict early retirement such that the minimum retirement age is 58 rather than 55.
- (4) Review of the terms applying to large retirement lump sums.
- (5) Cap pension increases on future benefits at the lower of CPI or 3%.

(1) Review of growth rates

This is perhaps the key change being proposed to future service benefits in that it affects that rate at which benefits are accrued.

The current system uses a tier of accrual rates (called growth rates), with a different rate applying to the members' benefits depending on the age at which they retire. The intention behind this approach was

to encourage members to work longer by creating a greater understanding of the value of working longer with regards to pension benefits.

This change primarily concerns GUS, as the benefits in the Police and Teachers' Schemes are currently under separate review. Although it has been suggested that the terms for early retirement in these Schemes are to be reviewed.

This system can be compared to the traditional approach whereby the accrual rate is fixed, but an early retirement factor ("ERF") is applied upon retirement before Normal Retirement Age ("NRA"), and a late retirement factor ("LRF") is applied upon retirement after NRA. Benefits are accrued at a defined rate, and the ERFs/LRFs are determined by the Trustees/Scheme Actuary and can be updated to ensure they remain appropriate according to current market conditions. The approach adopted in the Isle of Man does not have that flexibility, as the ERFs/LRFs are effectively hard-coded into the growth rates. This means that if experience shows these rates are too high/low they cannot be adjusted for past service. This makes the existing system very restrictive.

We understand that actual experience shows that in fact members are not working longer and the approach has not had the desired effect on members' retirement decisions. We would recommend adopting the more traditional approach whereby an NRA and accrual rate are defined, with accompanying ERFs and LRFs. This can be done such that the immediate cost/saving to the Schemes is nil, but it will give the Schemes additional flexibility in the future, thereby reducing the cost risk to the Schemes.

Setting this issue aside, and considering the proposed changes, the suggestion is to move the current accrual rates upwards by 5 years

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such that the current level of benefits achieved at age 65 would not in future be achieved until age 70. The GUS member guide provides a table of "growth rates" at various ages. We have replicated this below, for the Standard section only, along with the new "growth rates" which would be applicable following the proposed changes.

Retirement Age	Existing growth rate	Revised growth rate
55	0.81%	Unknown
60	1.16%	0.81%
65	1.50%	1.16%
70	2.03%	1.50%
75	2.55%	2.03%

Please note that the changes are suggested to apply to new members, while growth rates for existing members are to be reviewed to ensure they are reflective of member options and anticipated longevity. The JWG Report also states that the actuarial reduction factors for deferred members are to be reviewed. However we understand that no such factors apply in this Scheme and so we cannot see how deferred member benefits can be reviewed without altering accrued benefits. We do not consider this further here.

The effect of the proposed changes is comparable to reducing the accrual rate by around 30%, applying an extra 5 year ERF to the benefits, or to increasing the NRA by 5 years. This is a significant change.

We have shown below for comparison purposes, the existing and revised accrual rates which would be applicable in the Scheme, if the Normal Retirement Age had been fixed at the relevant age:

Retirement Age	Existing growth rate	Revised growth rate
55	1/123.5	Unknown
60	1/86.2	1/123.5
65	1/66.7	1/86.2
70	1/49.3	1/66.7
75	1/39.2	1/49.3

To determine the structure of the Schemes, it is important both to consider the cost of the Schemes, but also what is considered an appropriate level of income in retirement.

Income in retirement

It might seem an obvious point to make but the main aim of occupational pension schemes is to help employees top up their State retirement benefits to a suitable level so that they can retire with a similar standard of living to that to which they have been accustomed.

It is important that we consider net income replacement, that is, after tax as well as before.

The table below shows the net pay for employees on a salary of £45,000 per annum and £30,000 per annum and uses the tax and National Insurance rates at 2015/16 levels. It also shows both gross and net retirement incomes based on the assumption that the singletier State pension is introduced at £151.25 per week. We have used an accrual rate of 1/60 which corresponds to a retirement of 66-67 which is close to State Pension Age:



Gross pay	£30,000 (40 years' service)	£30,000 (35 years' service)	£45,000 (40 years' service)	£45,000 (35 years' service)	
Pension contributions	(£1,500) (<mark>5%)</mark>	, , , , , , ,		(£2,250) (5%)	
Income tax	(£2,750)	(£2,750)	(£5,600)	(£5,600)	
Full rate NI	(£2,227)	(£2,227)	(£3,293)	(£3,293) £33,857	
Net pay	£23,523	£23,523	£33,857		
Private pension	£20,000	£17,500	£30,000	£26,250	
Single tier state pension	£7,865	£7,865	£7,865	£7,865	
Gross pension	£27,865	£25,365	£37,865	£34,115	
GRR	93%	85%	84%	76%	
Income tax	(£2,623)	(£2,123)	(£4,623)	(£3,873)	
Net income	£25,242	£23,242	£33,243	£30,242	
NRR	107%	99%	98%	89%	

There are many reasons why employees may not need 100% net replacement income on retirement as household outgo is normally reduced at this point. Primary reasons for this are mortgages being paid off, reduced levels of debt/loans, the removal of the costs associated with work (travel, lunches, etc) and no childcare costs. It is generally lower paid employees who require net income replacement at the higher end of the scale.

The example above shows that 40 years' service in a final salary scheme with an accrual rate of 1/60th produces a net retirement income of 107% and 98% of that in employment (depending on salary). At 35 years' service (but assuming such a member retired unreduced on or after age 65) the member would receive 99% or 89% net income replacement (inclusive of the single-tier State pension payable from State Pension Age, and depending on salary).

It is somewhat subjective to consider a single appropriate net income replacement but these may be considered on the high side.

The Final Report from the Independent Public Service Pensions Commission issued in March 2011 (known as the "Hutton Report") recommended that "The Government should ensure that public service schemes, along with a full state pension, deliver at least adequate levels of income (as defined by the Turner Commission benchmark replacement rates) for scheme members who work full careers in public service."

The Turner Commission benchmark replacement rates were restated in the Hutton Report and the salary bands were uplifted to approximate 2011 terms:

Gross income	Gross income (approximate 2011 terms)	Benchmark gross replacement rate
Less than £9,500	Less than £11,000	80%
£9,500 to £17,499	£11,000 to £20,499	70%
£17,500 to £24,999	£20,500 to £29,499	67%
£25,000 to £49,999	£29,500 to £58,999	60%
£50,000 and above	£59,000 and above	50%

The gross replacement rates calculated above using an accrual rate of 1/60 and the new single-tier State pension may support the conclusion that gross replacement rates of 76% - 93% are on the high side.

In this example, the gross replacement rate from the single-tier State pension in isolation is 17% for somebody earning £45,000 pa and 26% for somebody earning £30,000 pa. Using a 60% gross replacement



rate as the target, this would mean that the gross replacement rate to be provided by occupational schemes would need to be at least 43% and 34%.

Cost of benefits

The future service cost identified in the 2013 actuarial valuation was 28.6% of pensionable pay for GUS. Making the very broad assumption that everyone retires at age 60 (which is the valuation assumption for all section 1-6 GUS members), we estimate that such a change would reduce this rate to around 20%. A saving of 8.6%. Although this assumes such a saving is made on all existing members too. The exact changes proposed for the existing members, in particular the protected sections, has not been clearly defined. We would be interested to know the proposals for these members to properly assess the impact of such changes.

The effect of any saving will not come through fully until far into the future when all legacy benefits have been paid, meaning the only benefits in the Scheme are those in respect of the proposed changes. Therefore the benefit outgo will remain higher than the future service cost far into the future. Nevertheless, these figures illustrate the magnitude of the proposed changes.

Another consequence of these changes is that members will need to work to a later age to obtain a certain level of benefit. This is likely to mean that members with a significant part of their benefits on the new scale will work a little longer and their cashflows will now occur further into the future. This may improve the cashflow position slightly but probably not until significant post-change benefits have built up – say in 20 years' time. It is hard to predict how members will react to a change of accrual in the shorter term. There might even be effects which increase short-term cashflow (such as more early retirements).

It may be helpful to obtain cashflow projections on a number of scenarios.

In summary, we expect the suggested changes to have a significant effect on the long-term cost of the Scheme. The appropriateness of these changes is a matter for consideration. Our key recommendation here, is that the structure of the arrangement is changed to better utilise the flexibility available from setting a fixed NRA and accrual rate, with variable ERFs.

(2) Definition of Final Pensionable Salary

The second of the suggested changes to the benefit structure is to the definition of Final Pensionable Salary, which is used to calculate members' benefits. Again, this primarily concerns GUS.

The current definition in GUS is: "the highest annual average of a Member's Pensionable Pay payable in any 3 consecutive years ending in the 13 years immediately preceding the termination of the period of Active Membership". Where each salary is revalued in line with inflation (CPI) up until the member's retirement date.

The suggestion of such an approach is on the basis that in some circumstances Final Pensionable Salary is 4-6% higher than the member's current pay. This will occur in the situation where salary progression is relatively flat and so the 3 consecutive salaries used are very close together, or where inflation is very high. Therefore the revaluation factor can increase the average salary above current earnings.

To consider why this is a problem, we also need to consider the reasons why Final Pensionable Salary is defined in this way. A pure final salary arrangement would have Final Pensionable Salary defined



as the members' salary in the final year of work. At the other end of the scale is a Career Average Revalued Salary (CARE) arrangement, whereby the benefit is determined using an average salary, but revalued to retirement. The current arrangement, with a 3 year revalued average, is somewhere between the two - the greater the period of averaging, the closer it becomes to a CARE arrangement. The intention of the revaluation factor is to protect benefits against inflation and to ensure the buying-power of the benefits is not eroded due to the averaging of Final Pensionable Salary.

In effect the final salary definition protects members against any decline in the real value of their salary over the whole of the last 13 years or around a third of their working life. This is a generous guarantee and for members it is an attractive feature of the new scheme, particularly in times of public sector wage settlements below inflation. It might be worth considering a reduction to the period covered by the guarantee.

The 2013 valuation assumes that salaries will increase by more than inflation so that the average of the last three years' salaries will be greater than any of the previous years' averages. Changing this averaging period would not therefore have any immediate effect on the future service rate applying to accruing benefits. However, the lower Final Pensionable Pay used to calculate benefits when members retire would feed through into future cashflows.

It may also be worth noting that the definition of Final Pensionable Pay in the GUS member booklet doesn't appear to match the Rules. We have confirmed with the PSPA that GUS is administered in accordance with its rules which define Final Pensionable Pay as the best average of indexed salaries. The PSPA has confirmed that they will amend the booklet accordingly.

(3) Restricting early retirement before age 58

One of the changes suggested by the JWG is to increase the minimum retirement age from 55 to 58, with further increases to follow in line with longevity improvements. This was based on the argument that it is inequitable for current members to be able to take their public service pension at a relatively young age in comparison to private sector employees who cannot generally retire on the same level of pension and therefore must work longer. This change is also proposed for the Police and Teachers' Schemes.

Assuming that the growth/accrual rates are set on a cost neutral basis there should be no cost to the Schemes in respect of benefits accrued to date, for a member retiring earlier. Therefore there should be no saving in the long term from making these changes.

Where this measure would have an impact is on the timing of cashflows. Restricting early retirement should mean that members work, and contribute, for a greater period of time and their benefits do not come into payment until a later date. This will improve the short-term cashflow position of the Schemes by increasing income and pushing back benefit outgo. Consequently this will also increase long-term cashflows.

However, we understand that following subsequent discussions, it has been proposed that this change will only apply to new members, and not current members. Therefore the saving in the short-term may be limited.

We would be interested to know the materiality of these changes and whether this is expected to have a significant effect on the cashflow position, particularly in the short-term. For sections 1-6 in GUS, which make up 98% of the past service liability across the Schemes, members are assumed to retire at age 60 and so the effect in respect



of these members should be nil. Therefore we do not expect the effect of this change on the projected cashflows to be very material.

From a cost point of view, if these changes are not considered to be very material to the cashflow position of the Schemes we would recommend leaving the minimum retirement age at 55.

In the UK it is proposed that minimum pension age will be linked to State Pension Age less 10 years. If this is introduced in the Isle of Man too, or if something similar is introduced, then there will be a natural limit on early retirements anyway.

The key factor here is that the growth/accrual factors are cost neutral, and so early retirements do not come at a cost to the Schemes. We have already spoken of the need to review these, and these arguments apply here. Again, our main recommendation is that the Schemes move to a fixed accrual rate and NRA, with flexible ERFs applying. This would give the Schemes the flexibility to ensure that ERFs applying to past service benefits are cost neutral.

(4) Terms applying to large lump sums

As we have already discussed, unfunded pension schemes depend heavily on the cashflow profile of their membership. Therefore large one-off payments, such as retirement lump sums, cause an additional cashflow strain on the scheme.

One of the suggestions put forward is to change the terms on which lump sums over £200,000 are determined and taxed:

- 1. The excess above £200,000 should be subject to income tax at the members' marginal rate
- 2. The excess above £200,000 should be converted on worse terms (£12 rather than £18 for each £1 of pension given up).

These changes are designed to dissuade members from taking larger lump sums, or to restrict larger lump sums. This will help to ease the cashflow position of the Schemes. However, assuming that members prefer to retire earlier (where commutation factors appear to be more penal), commuting pension for cash results in a long-term saving for the Schemes. Therefore, restricting commutation actually costs the Schemes. This is another example of the conflict between cashflow and cost.

We understand that following subsequent discussions, it has been proposed this change will only apply to new members and not current members and therefore the saving in the short-term will be limited.

The first suggestion regarding taxation is a matter for Tynwald as this concerns the taxation system in the Isle of Man. We do not comment further on this suggestion here other than to say it may influence the behaviour of the members, thereby reducing larger lump sums and easing the short-term cashflow position somewhat.

The second suggestion directly concerns the calculation of benefits. Traditionally a commutation factor is set on a cost neutral basis. Therefore, commuting pension for a cash lump sum should have no effect on the cost of the scheme. It is possible, however, to set commutation factors higher or lower than this to influence the incidence of take-up of this option.

The current commutation factor of 18:1 is approximately equal to the cost neutral value of £1 of pension on the 2013 actuarial funding basis, for those members retiring between ages 60 and 65.

Moving to 12:1 for some of the benefits is a significant change to the factor and a worsening of the exchange terms. The argument put forward in the JWG report is that the current commutation factor for most public sector schemes in the UK is 12:1.

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However, as the conversion of benefits earned in predecessor schemes to GUS benefits assumed that the commutation factor would reflect the value of the benefit in the Schemes themselves, changing the commutation factor now might be seen to be invalidating the conversion terms. Also one of the aims of the original GUS review was to move away from the UK arrangements and so this argument is contrary to this aim.

The suggested changes could potentially affect anyone with a pension of over £33,000 pa and so it is not necessarily the very high earners that will be effected. However, we understand that in practice the changes will affect only 3% of the membership.

If this is the case, then we would argue that the improvement in the short-term cashflows appears to be far outweighed by the negatives of these changes. These being:

- The increase in the long-term cost of the Schemes;
- Issues which may arise in communicating such a change, which on paper looks like a significant change;
- The difficulty in determining an appropriate commutation factor as well as an appropriate limit for the changes.

Unless the short-term improvement to cashflows is expected to be significant, our recommendation would be to retain a uniform commutation rate and the simplicity this brings, but perhaps review this to ensure it is set at an appropriate level, both for the cashflow position and the long-term cost of the Schemes.

(5) Capping pension increases

The final proposal made by the JWG is to cap pension increases in retirement of CPI at 3% pa. The current approach is that pensions in payment increase in line with CPI each year. It is proposed that these changes should also apply to the Police and Teachers' Schemes.

The rate of CPI inflation has, recently, been very low. The long term Government target is 2% pa, and indeed this is the assumption adopted in the 2013 actuarial valuation and the cashflow projections. This is not to say that during more volatile periods, inflation will not be higher than 2% pa.

Capping of pension increases is not an uncommon approach in the private sector. Indeed many schemes now use the statutory minimum which is to cap CPI at 2.5% pa.

The suggested change will improve both the long-term cashflow position of the Schemes, and the long-term cost of the Schemes. This is because, even if inflation averages 2%, there will be some years when it exceeds 3%. Restricting pension increases in those years to 3% will reduce the average pension increase below the 2% inflation average. We estimate that a 3% cap on increases may reduce the future service cost from 28.8% pa to around 28.1% pa - a saving of 0.7% pa. If the JWG wanted to go further and apply the statutory minimum cap of 2.5%, we estimate this may reduce further to 27.8% pa - a further saving of 0.3% pa.



Alternatively, pension increases could be set at nil, but with a promise that they will be granted under certain conditions. For example if GDP increases by a certain amount, or if the Pension Reserve increases above a certain level. This would reduce the cost of the Schemes, and using such a formulaic approach would provide members with some comfort over the circumstances in which they will receive a pension increase.

This approach also provides savings in leaner times, meaning that effectively cost-sharing is partly met by pensioners as well as active members.

Conclusion

We have summarised below the suggested changes and indicated whether we believe each of the changes would have a material impact on the funding gap (where green indicates we believe it would have a material effect on the cost of the Schemes, amber indicates a fairly material effect, and red indicates that it is a proposal we believe would not have a material effect on the cost of the Schemes).

JWG report to Tynwald	Short term benefit obligations	Long term costs
Increasing employee contributions	✓	✓
Increasing employer contributions	✓	✓
Reviewing growth rates	×	✓
Removing inflationary increases within Final Pensionable Salary	×	✓
Restricting early retirement	✓	✓
Reviewing terms applying to large retirement lump sums	✓	✓
Cap pension increases on future benefits	×	✓





10. Other Options

Brief overview	 This chapter considers: Changes disregarded by the JWG. Any further possible changes which we feel may be helpful to the Scheme in meeting the "funding gap"
Information reviewed	The following documents were reviewed in this chapter: Joint Working Group report, dated December 2014.
Conclusions and recommendations	Of the changes already considered by the JWG, the only benefit change we recommend that should be reconsidered is to introduce some sort of link between pension and longevity. This would serve to protect the Scheme from the cost of improving longevity. Our recommendation is that this is done by linking NRA to SPA In order to reduce the level of risk in the Scheme, other ke benefit changes which could be considered are: Capping the level of increases to pensions in deferment. Capping annual salary increases or reviewing the definition of Final Pensionable Salary. Reviewing the commutation factors of the Scheme to influence the rate of cash commutation. Review the benefits payable upon death or ill-health retirement. Introducing a new section of GUS which provides a lower level of benefit for a lower contribution rate.

In chapter 9 we discussed the changes to the Schemes which have been suggested. We now consider the changes which were disregarded by the JWG, as well as those which we feel may be helpful in reducing the long-term cost of the Schemes.

Changes considered by the Joint Working Group

Cessation of membership

The JWG considered ceasing to offer membership of GUS to new employees and perhaps offering an alternative arrangement such as a (funded) DC arrangement.

Doing so would mean that pension contributions in respect of new employees would go to the DC arrangement and would not be available to meet benefit outgo from the Schemes. Therefore employers and/or the Government would need to meet the extra funding gap created by these missing contributions. This is likely to be prohibitively expensive.

It was agreed that the flow of members is required to maintain income to the Schemes and any cost increase would have been unacceptable. We agree this is a sensible approach.

Introduction of a CARE arrangement

A CARE arrangement uses average revalued salaries to determine each member's benefits, rather than their final salary at retirement (under a Final Salary Scheme). This type of arrangement is cheaper when salary progression is steep, but is more expensive when salary progression is flat (i.e. when the rate of revaluation is higher than the rate of salary increases).



It was determined that a move to a CARE arrangement would not lead to any cost savings in the Isle of Man. We do not have any further information, but we assume this is because salary progression tends to be relatively flat.

Such a change of approach would require an involved communication exercise with members, and may not be a popular change, leading to an increase in opt-outs. Unless significant savings can be made, we do not believe this is an option worth pursuing.

An effective, but less obvious way of controlling costs, would be to update the definition of Final Pensionable Salary. For example, the rate of revaluation could be reduced (or removed, as suggested in chapter 9), the methodology amended to match that in the booklet rather than the Rules or the averaging period could be extended.

Introducing a link between benefits and longevity

This is an approach which has been adopted by other countries, most notably the UK, where the NRA is equal to each member's SPA.

This option has been discounted by the JWG on the basis that such an approach has had opposition when it has been introduced elsewhere, and that it is complex to administer and introduce.

We feel that such an approach should be considered again. Whilst this may be a more complex approach, it may result in significant cost savings and avoid further changes in the future due to increasing longevity. Provided the changes and process for updating the calculation of benefits are well communicated to members, they shouldn't be difficult to understand.

Our suggested approach would be to follow the UK approach, of making NRA equal to SPA. The effect could be dampened somewhat by perhaps using an NRA of say 65, but replicating future increases in SPA.

One alternative raised by the JWG was to apply a longevity adjustment measure to pension at retirement, and we believe this is currently being looked into further. Whilst we agree this approach has its merits, it tends to be complicated and confusing and requires substantial ongoing administration. The simpler approach of a tie to State Pension Age would be clearer and less complicated in the longer term.

Retrospectively reducing pensions in payment

This is an approach which has been adopted in Eire and is discussed in the JWG report. This has been disregarded by the JWG on the basis that this would be a very significant step to take, which the financial state of the Scheme does not yet warrant.

We agree that this approach should not be considered further, and should be thought of as almost a last resort if the future outlook of the Scheme does not improve.



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Further possible changes

It is important that the benefit structures of the Schemes reduces the main risks to the Schemes where possible. This will ensure the cost of the Schemes remain under control, and further changes to contributions and/or benefits are kept to a minimum.

We have discussed below what we consider to be some of the main risks to the Schemes (in relation to managing experience between cost reviews) and how these risks can be managed within the benefit structures of the Schemes. The risks below are not comprehensive, but this is merely designed to highlight some of the key risks and the way the benefits can be structured to mitigate these. Note that any benefit changes will affect future service only, and so costs in the short-term may remain exposed to some of these risks.

Risk	Possible Mitigation
Longevity improvements mean that members live longer in retirement, thereby increasing the long-term cashflow requirement.	Under the existing structure of growth rates, this can be dealt with by reviewing these growth rates on a regular basis to account for the calculated cost of increasing longevity, and structuring them to encourage later working. Under a structure in which the NRA and accrual rate are defined, this can be managed by linking NRA to improvements in longevity, as discussed above. Alternatively this can be managed to some degree by setting penal ERFs to encourage members to work to a later age.
Higher than expected inflation means that benefits in deferment and payment increase at a higher rate than expected, leading to an increase in cashflows. Sensitivities provided by Hymans Robertson indicate that if inflation was 2.5% pa rather than 2% pa, this would increase the long-term funding gap by around another 5%.	As already suggested, pension increases in retirement can be capped so that the cost to the scheme are limited in times of high inflation. The same approach can be adopted for benefits which revalue in deferment. We recommend both benefits could be capped at the statutory minimum of 2.5% pa, or alternatively reduced to nil with discretionary/formulaic increases applying in certain conditions.
Higher than expected salary increases means that benefits are higher than expected, thereby increasing the long-term cashflow requirement.	 Introduce a CARE arrangement to limit the effect of steep salary progression. We have already discussed this above. Limit the amount by which pensionable salary can increase from the previous year. Any large increases in salary would then be spread over several years, thereby smoothing out salary progression. This will help to reduce the effect of sudden, large increases in salary just before retirement. Indeed, Hymans Robertsons have provided sensitivities for limiting pensionable salary increases to 2% pa. These show a short-term increase in cashflows due to the restrictions on contributions, but after around 2024, cashflows begin to fall and in the long-term look to be around 1% lower than under the original projections. Alternatively, contributions could still be paid on actual salary, thereby removing the short-term effect. This approach also has the advantage of encouraging members to remain in the Scheme to see the benefit of their pay rises. Set Final Pensionable Salary as the average over a defined period before retirement (as currently adopted). The longer the averaging period, the greater control over this risk.

Risk

Greater number of early retirements than expected. This will bring forward the expected cashflows and may increase the cost of the Schemes depending on the terms for early retirement.

Greater than expected number of members commute pension for a cash lump sum. This creates a cashflow strain on the Schemes.

Greater than expected number of withdrawals. This will increase the short-term cashflow requirement (due to lost contributions), but should reduce long-term cashflows (though lower benefits).

Increase in mortality rates, both before retirement, and in the 5 year period after retirement. In respect of death before retirement, this causes a cashflow strain due to the lump sum which is paid, as well as the partner's pension which comes into payment. In respect of death within 5 years of retirement, the remaining balance of the first 5 years of pension is paid as a lump sum, thereby causing a cashflow strain.

Greater than expected number of ill health retirements. This could cause a cashflow strain, as well as an increase in cost, as the pension is paid much earlier than expected.

Contribution rates become too high and members leave.
This could cause a cashflow strain if contribution income is reduced significantly.

Possible Mitigation

Under the existing structure of growth rates, this can be dealt with by reviewing these rates on a regular basis to ensure they are cost neutral, and structuring them to encourage later working. Under a structure in which the NRA and accrual rate are defined, this can be managed by linking NRA to improvements in longevity, as discussed above, to encourage members to work later. Alternatively this can be managed by setting penal ERFs and generous LRFs to encourage members to work to a later age.

This can be managed through the commutation factors. They can be set at a more penal rate to discourage members from exchanging pension for cash.

Withdrawals (particularly those opting out of the Schemes whilst continuing in employment, as opposed to those leaving employment) can be managed to an extent by offering benefits which the members believe are valuable and contributions which they believe are fair and affordable. Therefore any changes to these factors need to be managed carefully. Spreading promotional salary increases over a number of years may also help to reduce the number of withdrawals.

The cost of the withdrawal benefit can be reduced by capping the rate of deferred revaluation, as we have already discussed. Reducing this benefit may help to reduce the number of withdrawals, but it is unlikely to be a material factor in members' decisions.

Generally if the member dies before they are assumed to, the long-term cost is likely to reduce, except in the case of death in service, where the prospective benefit granted is likely to prove more costly.

This risk is less material as the incidence of greater than expected deaths is likely to be far less common. However the cashflow strain can be reduced by reducing the benefits which are paid to partners, and in particular the lump sum payments. One particular aspect we recommend you consider is the prospective pension which is granted upon death in service, as well as the overall level of partner pensions in general. This could be reviewed as part of the change in growth rates.

This strain can be mitigated somewhat by reducing the level of benefit which is paid, and by making the health assessments wider ranging to ensure for instance that alternative employment is not possible and all ill health retirements are unavoidable. However we understand these benefits have already been reviewed, and it may be considered they are already at an appropriate level.

Introduce a new section of GUS which provides a lower level of benefit for a lower contribution rate. This may be useful for employees who cannot afford to participate in the current Schemes due to the level of contributions required (possibly as a result of a recent cost sharing review). Introducing such an arrangement may result in an increase in participation, which could improve short-term contribution income. Conversely, it could result in a significant proportion of members moving to the cheaper option, and the short-term cashflow effect may be negative. An element of automatically uplifting members to the more expensive section (and requiring them to opt back down again) on an annual basis, similar to the 50-50 option in the Local Government Pension Scheme in the UK, could help to resolve this.

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11. Other Considerations

Brief overview	 This chapter considers the remaining issues which need to be considered as part of the review. This will include: A discussion of the impact the changes for new starters will have on the Schemes. Consideration of any additional costs which may be arising in the near future and these may be treated as part of the reform process.
Information reviewed	 The following documents were reviewed in this chapter: New Terms for New Starters – Heads of Agreement, dated December 2014. Cashflow Modelling report, dated September 2014. Joint Working Group report, dated December 2014.
Conclusions and recommendations	 The new terms for new starters should be incorporated into the cost projections. The future reductions in the size of Government may also have a material effect on the Schemes and should be built into the projections. The effect of the level of transfer out of the Schemes should be considered and incorporated in the projections if appropriate. Transfers to DC Schemes should be stopped. The cost impact of the cessation of contracting-out should be borne in mind when setting contribution rates.

New Terms for New Starters

The Isle of Man Government, Prospect and Unite the Union are currently in discussions within a joint working group to examine the introduction of new terms and conditions for new starters employed within the Civil Service and under the auspices of Whitley Council. The aim of this being to safeguard existing public sector jobs and terms and conditions.

It has been proposed that changes will be made to the pay scales applying to new starters, and to exiting staff following a promotion, from 2015. Broadly, we understand these changes mean that there will be an average reduction of 10% in pensionable pay for new entrants in the affected occupations, which is expected to be around 50% of the employments covered by GUS.

Impact on the cost of pension benefits

The impact of these changes will be to:

- Reduce contribution income, which will increase the net benefit outgo.
- Reduce benefit outgo in the long-term, once the affected members begin to retire. This will reduce net benefit outgo in the long-term, offsetting the long-term increase due to lower contributions.

In terms of the future service cost, we expect that the changes should have no effect. This is because the future service cost is expressed as a cost as a proportion of pensionable salaries. The reduction in both the pension cost and pensionable salaries will offset each other. Therefore this issue is purely a cashflow one.

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Based on the Treasury's estimate of 8% staff turnover we would expect the new terms for new starters to reduce pensionable payroll and therefore contributions only very slowly- by perhaps 3% after 10 years rising very gradually to 5%. Benefit payments would also reduce but only once the benefits of the new starters came into payment, which will mostly be many years into the future. Ultimately the two effects would balance out but until they did there might be a small deterioration in the funding gap of around 1% of Pensionable Pay.

Whilst this is a relatively small change, the remaining funding gap (assuming the increases to contributions are made) across all Schemes is around 6% of pensionable pay. Therefore a change resulting in an increase in the funding gap of around 1% of pensionable pay, whilst only a relatively small issue compared to the big picture, is not insignificant. We recommend these changes are built into any projections that are done as part of the review of the benefit structure of GUS. We also recommend the short-term effect on cashflows is considered further as part of these projections.

Future changes to Government

The JWG report discusses the impact on the pension arrangements, of a reduction in the size of Government in the coming years. It estimates that many leavers in the next 5 years will not be replaced, leading to a 10% reduction in overall scheme membership. The cost of this in terms of cashflow (i.e. contributions lost) in the short-term should amount to around 2% of pensionable pay. In the long-term, the corresponding benefit savings should offset this cost.

It is suggested that this situation is monitored and if membership is diminishing as expected then additional contributions should be brought in. It is not clear if the intention is that this is done through cost sharing, or some other means.

We recommend that this projection is built into the cashflow projections for the purpose of this review, as this should account for all future expected experience. This cost can then be allowed for now, rather than requiring further changes in the next few years.

The approach taken depends though on the agreed approach to cost sharing. If cost sharing is to be brought in immediately, then this cost could perhaps be examined at the next cost review. Although it would still be less than ideal to increase contributions again so soon after the completion of the review. If cost sharing is not to be introduced until 2020, then not accounting for the cost now, may mean this isn't corrected until more than 5 years into the future. This may create an unnecessary strain on the Pension Reserve.

Transfers from GUS

There is an emerging trend in funded UK pension schemes, due to the new pension flexibilities which are now available, for members to transfer their benefits to alternative Defined Contribution (DC) arrangements shortly before retirement. If the same flexibilities are to be offered in the Isle of Man then unfunded public sector schemes will need to be protected as they are in the UK.

This is because an increase in the number of transfers from the Schemes would be a problem as it brings forward the cashflows for those benefits, causing an additional strain.

The recommendation is that future payments of transfer values will be restricted where the transfer will be to a DC scheme. This is what the UK government has done in its unfunded public sector schemes.



This will help to reduce the number of transfers and the effect on the Scheme's cashflows. However this matter should be considered as part of the Scheme reforms to ensure any future cashflow requirements, as a result of this, can be met.

We also recommend that transfers in received by GUS should be paid into the Pension Reserve.

Cessation of contracting-out

In April 2016, the State Second Pension (S2P) in the UK is ending, and so therefore is contracting-out of the S2P. It is our understanding that this may also be the case in the Isle of Man.

Therefore the Schemes will no longer be contracted-out and both members and employers will see an increase in National Insurance contributions. This will be in order of 2-3% of gross salary for employers, and 1% for members.

This should be borne in mind when considering possible increases to contribution rates as this may put members and employers under additional strain.

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Appendix A: Documents and Data

A list of all of the documents and data used in our review.

- A cash flow modelling report from Hymans Robertson, dated 22 September 2014
- The Public Sector Pensions Joint Working Group Report to Tynwald, dated December 2014
- A data report produced by Hymans Robertson in respect of the data used for the 2013 valuations and 2014 cash flow modelling, dated 16 April 2014
- A description of the modelling methodology used by Hymans Robertson, either in writing or in a meeting between First Actuarial
- An assumptions report produced by Hymans Robertson in respect of the assumptions used for the 2013 valuations and the 2014 cash flow modelling, dated 21 March 2014
- Email correspondence confirming the recommended valuation assumptions, dated 8 April 2014
- Paper comparing the 2013 valuation and accounting assumptions, dated 7 May 2014
- Draft accounting figures for the Isle of Man Treasury by GAD as at 31 March 2015, dated 8 May 2015
- Actuarial reports and any other relevant information relating to the calculations carried out for the initial set-up of GUS; (see below)
- Report titled 'Independent Review of Public Servants' Pensions, Isle of Man Government', by Hymans Robertson, dated May 2008
- Report titled 'Unified Pension Scheme Design for Public Servants
 The Way Forward, Isle of Man Government', by Hymans Robertson, dated November 2009
- Details on the Pension Reserve Fund provided by Ian Murray
- Scheme documentation, including copies of Rules and booklets.

- Working Group Presentation dated 16 June 2014 providing details of other benefit changes that were considered by the Public Sector Pensions Joint Working Group, that weren't included in the proposals outlined in the Working Group's report to Tynwald, "Public Sector Pensions – fairness and sustainability", dated December 2014
- Summary of membership data, including the age and salary profile of the membership broken down into appropriate categories.
- 2013 Actuarial Valuation of the Government Unified Scheme objectives and additional work, dated December 2013
- 2013 Actuarial Valuation Report, dated September 2014
- Email correspondence containing the initial valuation results, dated
 16 May 2014
- Paper outlining the proposed design of the 2015 Police and Teachers' Pension Schemes, dated 26 May 2014
- New Terms for New Starters Heads of Agreement, dated December 2014
- Member data as at 31 March 2014, provided by lan Murray
- The Public Sector Pensions Authority Report to Tynwald, dated October 2013
- GUS member guide dated March 2015
- GUS consolidated rules, dated July 2013
- 'Variations on cashflow projections' draft paper by Hymans Robertson, dated March 2010.
- 'Cashflow analysis' draft report, dated July 2013



PSPA Pensions Committee

Technical Sub-Committee ("TAG")

Joint Notice 22 January 2016

Exploration of the recommendations made in the 'Fairness and Sustainability' Report in relation to the 'Cost Envelope' and future member contributions to GUS.

This paper has been developed out of discussions in TAG aimed at exploring the position of Government and Staff Sides with a view to identifying how these might be reconciled with a view to achieving the shared objective of a fair and sustainable scheme

This paper addresses the issue of the total cost of pension benefits. The design of any future arrangements will be a product of further discussions between employers and trade unions.

The 'cost envelope' is the cost of providing future pension benefits expressed as a percentage of total pensionable pay.

Background

The results of the 2013 Valuation of GUS indicated that the cost of the future service benefits provided by GUS was 28.6% of pensionable pay. When current member contributions have transitioned to their prescribed levels the yield from member contributions will be 7.4%. This figure represents approximately a quarter of the total cost of providing pension benefits, implying that three-quarters of the total cost of benefits is left to be paid by Employers/Government.

Concerned about the rising cost and liability associated with public sector pensions, Tynwald commissioned a report with recommendations as to how the schemes could be reformed. The resulting Report from the Public Sector Pensions Joint Working Group ('Fairness and Sustainability') made recommendations in relation to GUS which involved:-

- 1. A 3% across the board increase in member contributions, phased over three years, which would raise the yield from member contributions from 7.4% to 10.4%.
- 2. Benefit changes which would reduce the cost of benefits (the cost envelope) in respect of existing members by 1.3% of pensionable pay (i.e. from 28.6% to 27.3%).
- 3. A reduced level of benefit for new entrants to the Scheme which would, as a result of membership turnover, further reduce the average cost of the scheme e.g. by an estimated 1.3% over fifteen years .

4. The Employer/Government contribution to future service benefits would reduce from 22.5% at the Valuation date to 21.2% after the previous member contributions have fully phased in, to 16.9% after proposals 1. and 2. were implemented and, after fifteen years, to 15.6%.

These proposals have been considered in the PSPA Committee, and the Committee referred them to a sub-committee, TAG, for verification, costing and for the exploration of alternatives.

The first stage of TAG's analysis, which was supported by the independent actuary from First Actuarial, was to confirm that the basis of costing in the 2013 Valuation was reasonable. A similar view was received from the UK Government Actuary (GAD). Both reports indicated that the issues with the scheme as identified in 'Fairness and Sustainability' were real.

The second stage has been to explore how the funding problems might be resolved and consider alternatives to the F&S proposals

Sensitivities explored in TAG

Member Contributions

The Employer side see the increase in contributions as critical to improving the cash flow position of the Scheme. The scheme is 'unfunded' and pension benefits are paid out from pension contributions received plus any draw on the 'reserve fund'. It is also felt that the share of the total cost of benefits paid by the employees should be increased and that the standard level of contribution (5% for Section 1 benefits) is low for a defined benefit final salary scheme; comparisons are drawn with public service schemes in the UK and Channel Island schemes. For example in the NHS the average employee contribution is 9.8%.

In order for the scheme to be viable and deliver good value to employees and employers it needs people to both join the scheme and to remain in it once they have joined.

On the Staff side there is concern about affordability for IOM employees and that higher contributions will reduce the future membership of the Scheme. An increase pushed too far could be counter-productive in terms of cash-flow. It is recognised, however, that if cash flow does need to be increased then in the short/medium term there is no substantial alternative to raising contributions, other than the employer meeting the full additional contributions which is not acceptable to Government.

If it is felt that higher contributions would create a particular problem in respect of low-paid employees then consideration could be given to differentiating any increase in employee contributions by salary level (but no detailed consideration of this has been undertaken at this stage)

Benefit changes

It is accepted that in the last round of changes the main impact of benefit reductions impacted on new starters and the minority of existing members who did not take up protection. Members in the protected sections were not required to pay the full additional cost (the real cost) of the extra benefits they secured through protection e.g. In Section 2, the largest protected section, members pay an extra 2.75% contribution but receive benefits now costed at 5.4% more than the standard

Section 1. Neither side wish to revisit that outcome, and no benefit changes proposed will reduce the benefits from or increase the cost of protection.

Taking account of that history, however, it is not felt appropriate or fair to differentiate 'new starters' again in this round of changes and proposals considered are ones which should affect all sections proportionately, and will not involve the creation of a new 'new starters' section i.e. Section 1 will remain open to new members.

A further important consideration in respect of this viewpoint is that if new starters were required to pay an increased level of member contributions and to receive a further reduced level of benefits then it raised serious concerns as to whether new members would choose to join the Scheme. For example, the F&S proposal involved a pension 25-30% lower than current section 1, on the assumption that current levels of benefit can only be claimed at a later retirement date.

Given the importance to the funding of the whole scheme of maintaining cash flow, discouraging new members to join could pose a real threat to the sustainability of the scheme.

On this basis it is considered appropriate that future benefit reductions and contribution increases should be applied equally across all the current Sections and that Section 1 should continue as the standard section and the section open to new members.

Modification of the Fairness and Sustainability proposals

On the basis of its deliberations TAG discussions have given rise to a 'straw-man' proposal to address the overall issue of the cost of future benefits which is put forward for the consideration of the PSPA Committee.

The key elements of this are as follows:

- (i) An increase of 2.5% of pensionable pay in all member contributions (application and phasing to be agreed) raising the yield from member contributions from 7.4% to 9.9%
- (ii) Benefit changes to be determined will reduce the cost of future benefits for existing members by 1.8% of pensionable pay (from 28.6% to 26.8%)
- (iii) No new Section for new members with Section 1 remaining open, which would result (given anticipated member turnover) in a reduction in the overall cost of the scheme of a further 0.8% over 15 years
- (iv) The proposals would reduce the Employer /Government contribution to future service to 16.9% in the short term and to 16.1% after fifteen years.
- (v) The Contribution ratio between Employer/Government and Employees would be 2:1

TAG will consider possible options as to which aspects of benefits might be changed to effect the savings and started to quantify their impact. Once a level of member contributions, a cost envelope and the treatment of new members have been identified then options to change the scheme design can be refined and presented to the PSPA Committee.

If the cost envelope were to be reduced by 1.8% (as per (ii) above) then this would suggest a reduction in the average level of future service benefit of around 6%.

Cost Sharing

Any future changes to contributions or benefits should only be implemented as a consequence of the operation of an agreed "cost sharing" mechanism. This will give members confidence in the sustainability and stability of the scheme as well as reassuring taxpayers that the cost of providing benefits will be controlled.

A "cost sharing" mechanism was provided for when GUS was established and TAG has had initial discussions on the technical work required to implement this. The "cost envelope" approach that underpins the approach taken in this paper gives an opportunity to have a "cost sharing" mechanism that ensures members' benefits retain their value at the same time as controlling the cost to taxpayers. Important elements of such a mechanism such as the cost ratio and whether there is a cap or floor on employer contribution rates remain to be discussed.

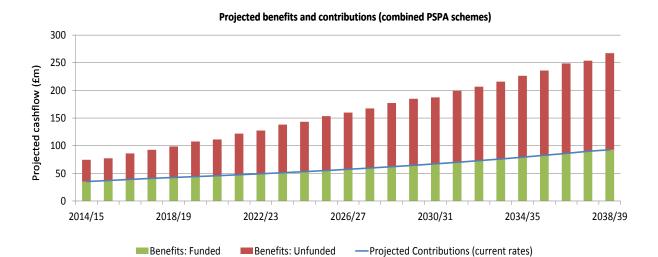
TAG recommends a commitment similar to that given to members of UK public sector pension schemes by the Chief Secretary to the Treasury, which would mean that changes that impact on contributions and levels of benefits outside of any agreed cost sharing mechanism, could only happen through an affirmative process in Tynwald. The affirmative process would require full discussion and agreement in Tynwald before any changes to the scheme could be made. This would also increase confidence in any reforms.

Gerry O'Dwyer, Joint Chair, Royal College of Nursing
Jon Callister, Joint Chair, Isle of Man Cabinet Office
22 January 2016

	TAG 'Strawman' Proposal									
	Existing (Protected Members)		Section 1		New Members					
		Employee	Employer	Total	Employee	Employer	Total	Employee	Employer	Total
Cumont	FSR	7.4%	21.2%	28.6%	5.0%	19.0%	24.0%			
Current -	Ratio	26%	74%	100%	21%	79%	100%			
E0 C	FSR	10.4%	16.9%	27.3%	8.0%	14.9%	22.9%	8.0%	12.8%	20.8%
F&S	Ratio	38%	62%	100%	35%	65%	100%	38%	62%	100%
Ctroumon	FSR	9.9%	16.9%	26.8%	7.5%	15.0%	22.5%	7.5%	15.0%	22.5%
Strawman	Ratio	37%	63%	100%	33%	67%	100%	33%	67%	100%



Monetary projection – Current rates



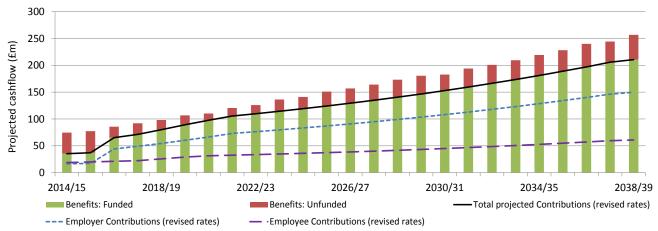
Notes

The assumptions underlying the projected benefit outgo and current contribution projections are set out in the cashflow modelling report dated 22 September 2014 to the PSPA and are based on data and assumptions as used for the 31 March 2013 valuations of schemes.



Monetary projection – Revised rates

Projected benefits and contributions (combined PSPA schemes)



Notes

The assumptions underlying the projected benefit outgo and current contribution projections are set out in the cashflow modelling report dated 22 September 2014 to the PSPA and are based on data and assumptions as used for the 31 March 2013 valuations of schemes.

The 'revised rates' assume that contribution rates for all GUS members (current and future members) will increase by 1% of pay in April 2018 and April 2019 then 0.5% in April 2020. This results in all GUS members paying 2.5% of pay per annum more from April 2020 than they are currently paying. Contributions from Non GUS members are unchanged from their current rates.

The revised contributions for all employers (GUS and Non GUS) are assumed to increase to 15% of per annum from April 2016 then increasing at each April thereafter by 1% of pay. Increases continue until April 2021 at which point all employers are paying 20% of pay per annum.

The revised cashflows for all GUS benefits accruing after 1 October 16 have been reduced by 9% (this reflects future service rate change from 28.6% to 26.0%). Cashflows resulting from benefits accrued prior to 1 October 16 are unchanged. Cashflows from Non GUS members are unchanged.