STATES OF JERSEY

GOVERNMENT ACTUARY'S REPORT ON THE FINANCIAL CONDITION OF THE SOCIAL SECURITY FUND AS AT 31ST DECEMBER 2012

Presented to the States on 10th April 2014
by the Minister for Social Security

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GOVERNMENT ACTUARY'S DEPARTMENT

Report by the Government Actuary on the financial condition of the Social Security Fund as at 31 December 2012

Date: 28 March 2014

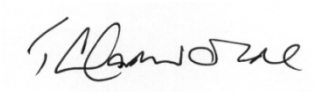
Author: Trevor Llanwarne

SOCIAL SECURITY (JERSEY) LAW 1974

Report by the Government Actuary on the financial condition of the Social Security Fund as at 31 December 2012

To the Minister for Social Security of the States of Jersey

Article 32 of the Social Security (Jersey) Law, 1974 requires an actuary to review the operation of the Law at intervals not exceeding three years. The previous review was as at 31 December 2009 and, at the request of the Minister, I have carried out a review as at 31 December 2012. I now submit the following report on the financial condition of the Social Security Fund and on the adequacy of the present contribution rates.



Trevor Llanwarne

Government Actuary

28 March 2014

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1 Executive summary

1.1 The Social Security Fund of the States of Jersey ("the Fund") is primarily designed to provide benefits in old age, and on death and incapacity to those who have paid the required contributions to the Fund. The Fund is financed by a combination of social security contributions from individuals and employers and States grants from the States.

1.2 The financial position of the Fund is, like any social security scheme, subject to a wide range of factors, such as the structure of the population and economic conditions. Article 32 of the Social Security (Jersey) Law 1974 ("the Law") makes provision for an actuary to carry out reviews of the operation of the Law. In particular, paragraph (1) of that Article provides that:

> "… as from the end of each period of 3 years, or such shorter period as the Minister may direct, an actuary shall review the operation of this Law"

Paragraph (3) of Article 32 goes on to provide that:

> "… the actuary shall report to the Minister on the financial condition of the Social Security Fund and the adequacy or otherwise of the contributions payable under this Law to support the benefits payable thereunder having regard to the liabilities under this Law."

1.3 This is my report on the latest review of the Fund, which has been carried out as at 31 December 2012, and it includes projections over the period from 2012 to 2072. This review:

- considers the financial position of the Fund taking into account changes in legislation and Fund experience since the previous review
- projects possible future levels of expenditure from the Fund and the contribution rates required to finance this expenditure
- projects the balance in the Social Security Fund and the Social Security (Reserve) Fund

1.4 Two main sets of results are presented in this report:

- the projected "break-even" contribution rates; this is the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs, ignoring any Fund balance; for this purpose the value of supplementation is assumed to continue to be calculated as at present, based on the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL), and that the States grant and the 2% contribution payable on earnings between the SEL and Upper Earnings Limit (UEL) by employers and those individuals paying Class 2 contributions will continue to be calculated as at present
- the combined balances in the Social Security and Social Security (Reserve) Funds (together "the Combined Funds"), as a multiple of annual expenditure, assuming that the current rates of contribution remain unchanged

1.5 We have been asked by the Social Security Department to carry out the review on the basis that pension age increases from 65 to 67 over the period from 2020 to 2031. We understand that this policy has been agreed and legislation will be debated in the near future.

1.6 We have been asked to use three central assumptions for migration:

- Net nil inward migration
- Net inward migration of 325 people each year
- Net inward migration of 700 people each year

1.7 Other central assumptions include:

- the future rate of return on investments, net of associated expenses, will be 2% a year in excess of earnings increases
- earnings limits for contributions and benefit rates are assumed to increase in line with general earnings growth

1.8 A summary of the results of the review is shown in the following table and charts.

Table 1.1: Estimates of the break-even contribution rates[1], expenditure from the Social Security Fund and the balance in the Combined Funds based on the central assumptions and expressed in constant 2012 earnings terms

Year	Break-even rate (% of earnings)	Expenditure (£m)	Funds' balance at year end (£m)	Average fund over year expressed as a multiple of annual expenditure
		Net nil migration		
2012	9.5%	197	1,024	4.9
2017	10.8%	226	1,149	5.1
2022	11.9%	245	1,163	4.7
2032	14.5%	286	817	3.0
2042	16.4%	308	-	-
2052	16.5%	294	-	-
2062	16.5%	281	-	-
2072	16.7%	273	-	-
		Net immigration of 325 people a year		
2012	9.5%	197	1,024	4.9
2017	10.6%	226	1,157	5.1
2022	11.4%	247	1,202	4.9
2032	13.4%	289	1,001	3.5
2042	14.5%	315	323	1.2
2052	14.0%	307	-	-
2062	13.8%	304	-	-
2072	13.9%	309	-	-
		Net immigration of 700 people a year		
2012	9.5%	197	1,024	4.9
2017	10.5%	227	1,167	5.1
2022	11.0%	248	1,248	5.0
2032	12.4%	293	1,213	4.2
2042	12.9%	322	848	2.7
2052	12.1%	321	476	1.5
2062	11.9%	331	144	0.5
2072	12.1%	351	-	-

[1] In comparison with the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL): see paragraph 1.4 above.

Figure 1.1: Projected break-even contribution rates based on the central assumptions

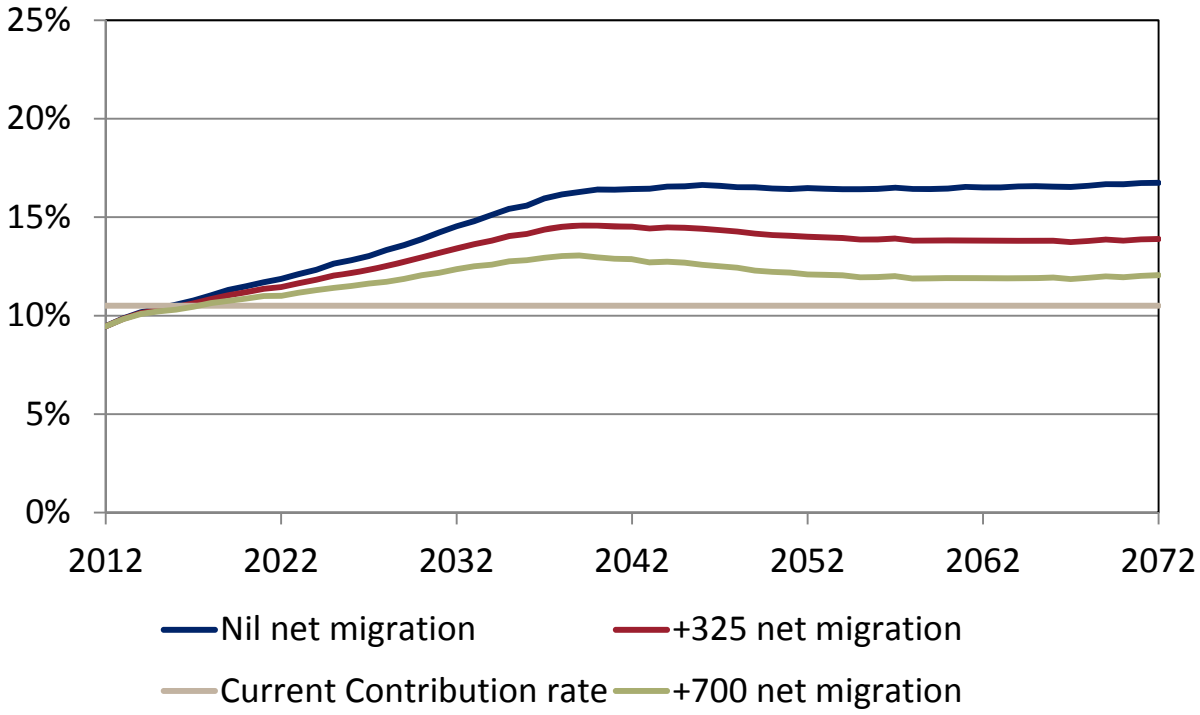
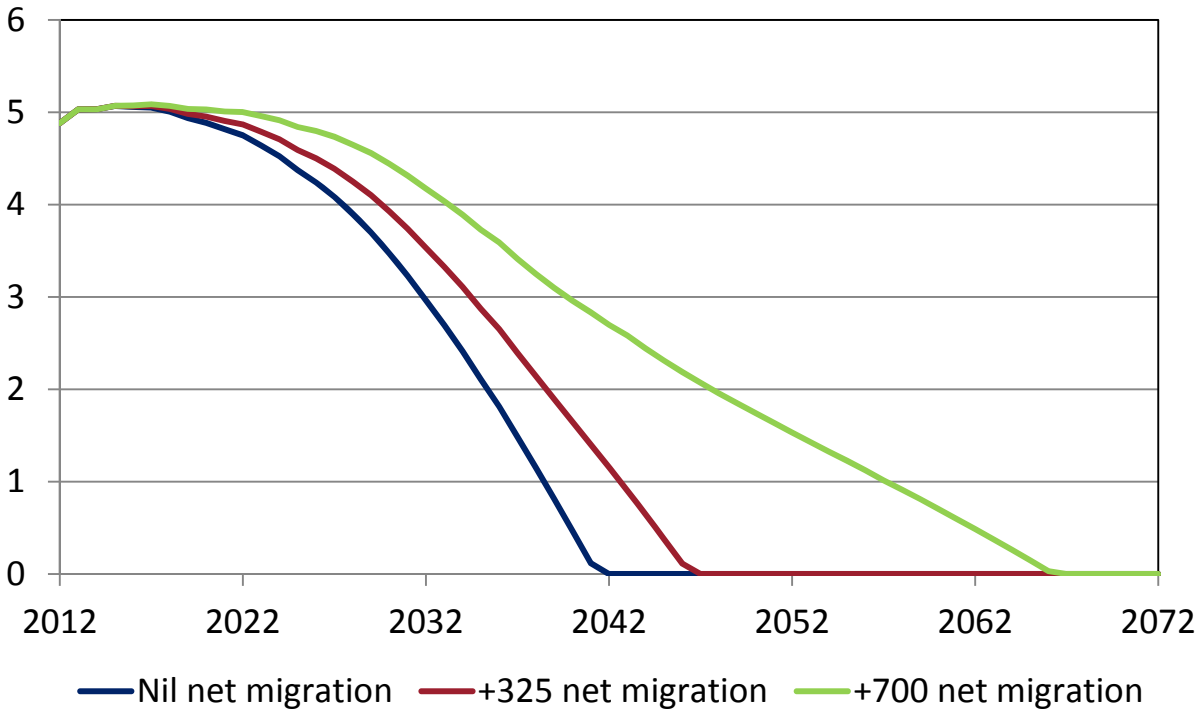


Figure 1.2: Projected Combined Fund balance expressed as a multiple of annual expenditure based on the central assumptions



1.9 In summary, the results are:

Break-even contribution rate

(i) Net nil inward migration

> Assuming net nil future migration, the break-even contribution rate is projected to remain below the current rate of 10.5% up to 2015. Thereafter, the projected contribution rate initially rises rapidly, reaching 16.4% around halfway through the projection period (i.e. after around 30 years) and then broadly levelling off at around that level.

(ii) Net inward migration of 325 and 700 people each year

> A similar situation occurs in the case of net inward migration of 325 people each year and inward migration of 700 people each year, with break-even contribution rates reaching 10.5% in 2016 and 2017, respectively, and then 14.5% and 12.9% around halfway through the projection period, respectively. After that, the break-even contribution rates reduce slightly then remain broadly level at around 13.9% and 12.0% respectively.

> The main driver of the projected increase in the break-even contribution rates over time is the ageing of the population, resulting in a decrease in the number of contributors relative to those of pensionable age. For example, the number of people of working age for each person over pension age (excluding overseas pensioners) is projected to reduce from around 4.5 in 2012 to around 2.5 around halfway through the projection period on the net inward migration assumption of 325 people each year.

Fund balance

> If the current rates of contributions remained unchanged, the combined Fund balance is projected to remain broadly constant relative to expenditure for around a decade after the review date, before starting to decline. Ultimately, the Fund would be entirely extinguished and at the point of extinction the contribution rate would need to rise to the break-even rate in order to meet expenditure.

> The table below compares the years by which the Combined Funds are projected to be exhausted under the three central migration assumptions, if the current contribution rates were to continue.

Table 1.2: Projected year of exhaustion of the Combined Fund based on the central assumptions

Migration assumption	Year by which the Combined Funds are projected to be exhausted
Net nil inward migration	2041
Net inward migration of 325 people each year	2046
Net inward migration of 700 people each year	2066

> In practice, to the extent that part of the Fund balance is not readily convertible into cash (for example, fixed assets and debtors) it would be necessary to increase the contribution rate or take alternative action before the balance is

fully extinguished. Indeed, it may be considered prudent to increase contribution rates earlier still in order to maintain a reasonable working cash balance. However, given the projected Funded exhaustion dates in Table 1.2 above, if no action is taken in this regard before the next review of the Fund (due no later than 31 December 2015) this would not be expected to unduly compromise the operation of the Fund for many years and consequently any decision regarding potential increases in contribution rates could be postponed until after the 2015 review of the Fund.

1.10 In addition to calculating results using the central assumptions, projections have also been made on "variant assumptions" to show how varying the assumptions can affect the projected financial development of the Fund. These variant assumptions consider the effect of changing the assumed rate of investment return or increasing the projected increase in expenditure on old age pensions. For example, with net inward migration of 325 people each year, if investment returns are 2% a year lower than our central assumption and old age pension expenditure is 10% higher then the year in which the Funds would be extinguished could be estimated very approximately as 2035 (i.e. an 11 year reduction in comparison with Table 1.2 above), while if investment returns are 2% a year larger than our central assumption and old age pension expenditure is 10% lower then the year in which the Funds would be extinguished is projected to fall after the end of the end of the 60-year projection period. This illustrates how the future cannot be predicted with certainty.

1.11 The main changes from the 2009 review are (on the basis of comparing the 2009 review's 150 HoH population projection variant with the 2012 review's net inward migration of 325 people each year and also allowing for the agreed policy to increase pension age to 67 by 2031 in both cases):

- The break-even contribution rates are slightly larger than before in the early years (for example, the 2009 review's projected break-even contribution rate of 9.4% in 2012 has now increased to 9.5%), but the situation is projected to reverse in the 2030s and in the later years of the 60-year projection period the projected break-even contribution rates are projected to be around 1% lower.
- The projected date of Combined Fund exhaustion has moved forward, from 2049 to 2046.

1.12 The main reasons for these changes since the 2009 review are:

- Population projection updates: a larger and on average younger population at 2012 than expected being built into future projections, mainly due to more recently available census information and birth, death and migration data, together with updated demographic assumptions
- Changes to the projected average proportion of full pension benefit paid out per pensioner in the resident population: for the 2012 review we are using a more sophisticated approach, making use of actual and projected contribution data records, and this increases the proportions in the early years and reduces them in later years.

The effects of these two reasons interact and offset one another, to some extent.

1.13 Conclusion: The financial outlook for the Fund remains healthy in the short to medium term, i.e. in the first half of the projection period. However, as described above, on the central assumption set adopted for the purposes of this review, this report shows that in the absence of changes to contributions or benefits, the Reserve Fund is expected to

be extinguished in around 35 years' time (the exact year is very sensitive to the assumptions used and the most optimistic scenarios tested go as far as to show an improvement rather than decline in the Fund in the long term). After this time, the contribution rate would need to be raised to at least the break-even rates described above. Changes to benefits such as further increasing the pension age could help delay the point at which contributions need to be increased as well as limiting the size of the required increase. Other actions that could be taken in order to ensure that the Fund can continue to meet its commitments in the longer term might include, at some stage in the next decade or two, drawing down assets from the Reserve Fund to meet any shortfall between income and expenditure in the Social Security Fund. As the option exists to take action earlier the situation should be reviewed at the time of the 2015 review.

2 Introduction and scope of the review

2.1 The financial position of the Jersey Social Security Fund ("the Fund") is, like any social security scheme, subject to a wide range of factors, such as the structure of the population and economic conditions. For this reason, Article 32 of the Social Security (Jersey) Law 1974 ("the Law") makes provision for an actuary to carry out reviews of the operation of the Law. In particular, paragraph (1) of that Article provides that:

> "… as from the end of each period of 3 years, or such shorter period as the Minister may direct, an actuary shall review the operation of this Law"

Paragraph (3) of Article 32 goes on to provide that:

> "… the actuary shall report to the Minister on the financial condition of the Social Security Fund and the adequacy or otherwise of the contributions payable under this Law to support the benefits payable thereunder having regard to the liabilities under this Law."

2.2 This is my report on the latest review of the Fund, which has been carried out as at 31 December 2012, and it includes projections over the period from 2012 to 2072. This review:

- considers the financial position of the Fund taking into account changes in legislation and Fund experience since the previous review
- projects possible future levels of expenditure from the Fund and the contribution rates required to finance this expenditure
- projects the balance in the Social Security Fund and the Social Security (Reserve) Fund ("the Combined Funds"), assuming no change in current social security contribution rates

The results of these calculations are set out in Section 4 of this report.

2.3 The projections in this report are dependent on the data, methodology and assumptions used for the review, which are described later in this report.

2.4 The previous review of the Fund was carried out as at 31 December 2009 and the results were presented in my report dated 15 November 2011.

2.5 The structure of the remaining sections of this report is as follows:

Section 3	A discussion of how the Fund works and the main changes that have occurred since the previous review
Section 4	The results of the projections of income, expenditure and the balance in the Funds over a period of 60 years, based on the central assumptions
Section 5	The results of the projections based on alternative assumptions
Section 6	A comparison of the results in section 4 with those from the report on the previous review

2.6 The appendices give additional background and more detailed results.

2.7 Under legislation, the next review of the Social Security Fund is due to be carried out as at 31 December 2015, or earlier as the Minister may direct.

Reliances and limitations

2.8 This report has been prepared for the Minister for Social Security and the Department for Social Security, although it is understood that the report will be made publicly available. However, GAD does not accept any liability to third parties in relation to this report.

2.9 GAD has relied on the accuracy of data and information provided by the Minister and the Department for Social Security ("the Client"). We do not accept responsibility for advice based on wrong or incomplete data or information provided by the Client. We have reproduced in the Appendices to this report our understanding of the legislative environment, benefit and contribution rates and the financial data provided to us.

2.10 Clarification should be sought if the Client has any doubt about the intention or scope of advice provided in this report. GAD is not responsible for any decision taken by the Client, except to the extent that the decision has been made in accordance with specific advice I have provided.

2.11 The advice provided must be taken in context. Advice is intended to be read and used as a whole and not in parts. GAD does not accept responsibility for advice that is altered or used selectively.

2.12 It is anticipated that the results in this report will be used by the Client for information purposes and for considering possible changes to contributions or benefits payable. However, before deciding on any potential changes, further actuarial advice should be sought in order to confirm the potential impact on the finances of the Fund. Furthermore, in making decisions about the Fund, it will also be appropriate to take into account non-actuarial matters, such as legal, administrative and policy issues.

3 How the Fund works

3.1 The Fund is designed to provide benefits in certain situations to those who have contributed to the Fund. In particular, subject to meeting the qualifying conditions, the Fund pays benefits in old age, and on earlier death or incapacity. It is not a requirement to be a Jersey resident in order to receive a benefit from the Fund and, in practice, the old age pension is paid to many individuals who do not remain on the Island in old age.

3.2 The Fund is financed by social security contributions. Employees and their employer pay a total of 10.5%[2] of earnings up to the Standard Earnings Limit (SEL, £3,834 per month for 2013). Similar contributions are paid by those individuals paying Class 2 contributions unless they are exempt. If someone has income above the Lower Earnings Limit (LEL, £808 per month for 2013) but below the SEL, the contribution based on the SEL is made up through supplementation. The cost of supplementation is offset by a further contribution of 2.0% of earnings between the SEL and Upper Earnings Limit (UEL, £12,686 per month for 2013) payable by employers and those individuals paying Class 2 contributions and the States grant payable by the States.

3.3 A summary of the benefits provided and the contributions payable to the Funds is given in Appendix A. A summary of the Fund accounts for the years 2010 to 2012 is set out in Appendix B. Appendix C provides a summary of the data used for the review.

3.4 Up to 1998, the Fund had broadly followed a pay-as-you-go financing approach. Under this approach, contribution income in a year is intended to cover expenditure in the year, and no significant fund of assets would be built up out of which to finance future expenditure. However, the pay-as-you-go approach implies increases in contribution rates, often substantial, as the population ages, a feature that is common to many countries including Jersey.

3.5 Therefore, in order to confront Jersey's ageing demographic profile over the next 30 to 40 years, it was decided to raise contribution rates above the required pay-as-you-go rate[3]. This has meant that there should be an excess of income over expenditure, which is transferred each year from the Social Security Fund to the Social Security (Reserve) Fund. The intention was to build up the Reserve Fund to a level of around five times the annual expenditure on benefits and administration from the Social Security Fund.

3.6 In 2012, the contributions were more than enough to finance expenditure from the Social Security Fund, allowing a transfer to the Social Security (Reserve) Fund of about £10 million. The average assets of the Social Security Fund and the Reserve Fund together ("the Combined Funds") over 2012 represented nearly five times total expenditure from the Social Security Fund (this is projected to decline over time).

[2] This excludes the 2% contribution payable to the Health Insurance Fund.
[3] Contribution rates were increased by 0.5% in each year from 1998 to 2002

4 Results based on the central assumptions

4.1 Estimates have been made of the future income, benefit expenditure and administration expenditure of the Fund over the period from 2012 to 2072. The projections in this section are based on the central assumptions, which have been chosen so that they represent a reasonable estimate of future experience, although in the case of the migration assumption GAD has relied on guidance from the Social Security Department. The assumptions include that:

- the size of the population will follow the projections prepared by the Jersey Statistics Unit assuming either net nil future migration or immigration of 325 or 700 people each year
- the future rate of return on investments, net of associated expenses, will be 2% a year in excess of earnings increases
- earnings limits for contributions and benefit rates are assumed to increase in line with general earnings growth

Further details of the population projections can be found in Appendix D, while Appendix E gives details of the other assumptions underlying the projections.

4.2 Details of the projections in selected years are given in Appendix F and a summary of the key results is set out in this section. Where monetary amounts are shown these are in constant 2012 earnings terms.

4.3 Table 4.1 summarises the projections, in particular showing:

- the "break-even" contribution rates; these are the rates that would be required in order for contribution income to equal expenditure on benefits and administration costs, ignoring any Fund balance, and would be the rates required if the Fund were following the pay-as-you-go financing approach
- the balance in the Combined Funds expressed as a multiple of annual expenditure, assuming the current rates of contribution remain unchanged.

4.4 For these results:

- contributions to the Health Insurance Fund have been excluded from the break-even rates
- the value of supplementation is assumed to continue to be calculated as at present (see Appendix A, paragraph 7.22) based on the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL)
- it is assumed that the States grant and the 2% contribution payable on earnings between the SEL and Upper Earnings Limit (UEL) by employers and those individuals paying Class 2 contributions will continue to be calculated as at present.

Table 4.1: Estimates of the break-even contribution rates[4], expenditure from the Social Security Fund and the balance in the Combined Funds based on the central assumptions and expressed in constant 2012 earnings terms

Year	Break-even rate (% of earnings)	Expenditure (£m)	Funds' balance at year end (£m)	Average fund over year expressed as a multiple of annual expenditure
		Net nil migration		
2012	9.5%	197	1,024	4.9
2017	10.8%	226	1,149	5.1
2022	11.9%	245	1,163	4.7
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2052	16.5%	294	-	-
2062	16.5%	281	-	-
2072	16.7%	273	-	-
		Net immigration of 325 people a year		
2012	9.5%	197	1,024	4.9
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2032	13.4%	289	1,001	3.5
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2052	14.0%	307	-	-
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		Net immigration of 700 people a year		
2012	9.5%	197	1,024	4.9
2017	10.5%	227	1,167	5.1
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2052	12.1%	321	476	1.5
2062	11.9%	331	144	0.5
2072	12.1%	351	-	-

4.5 The break-even contribution rates and the combined Fund balance, expressed as a multiple of annual expenditure, are illustrated in the following charts for each migration scenario.

[4] In comparison with the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL): see paragraph 4.4 above.

Figure 4.1: Projected break-even contribution rates based on the central assumptions

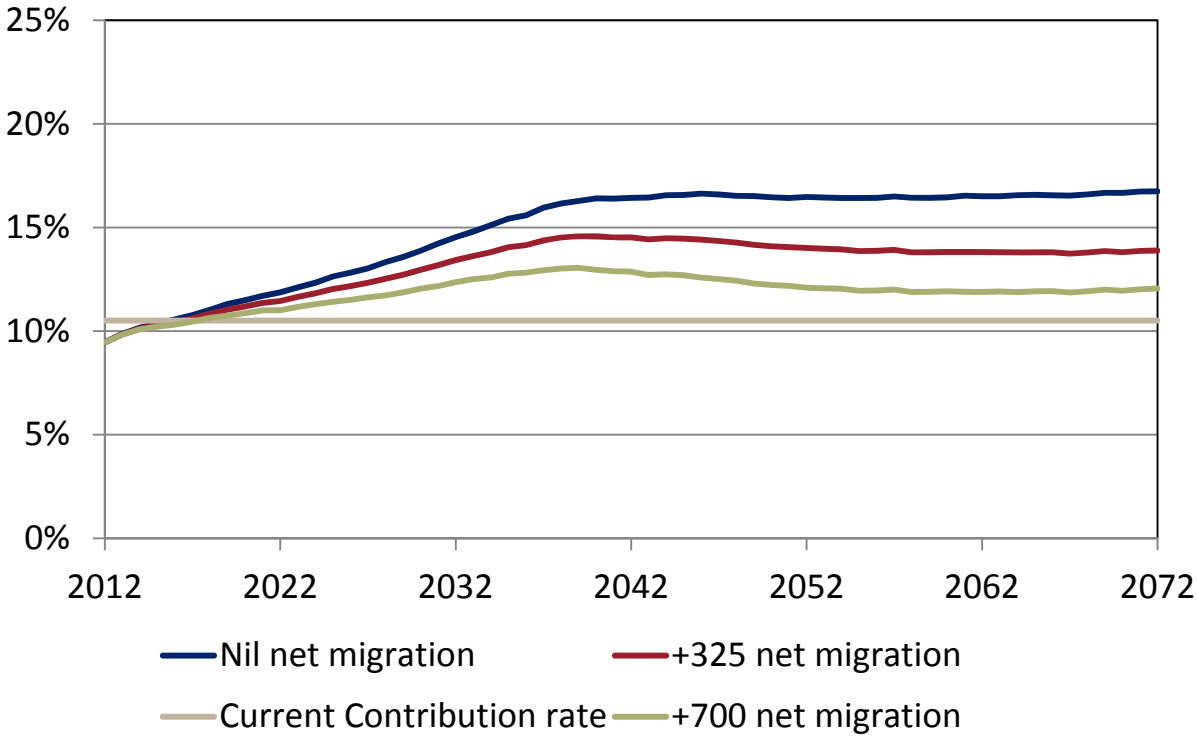
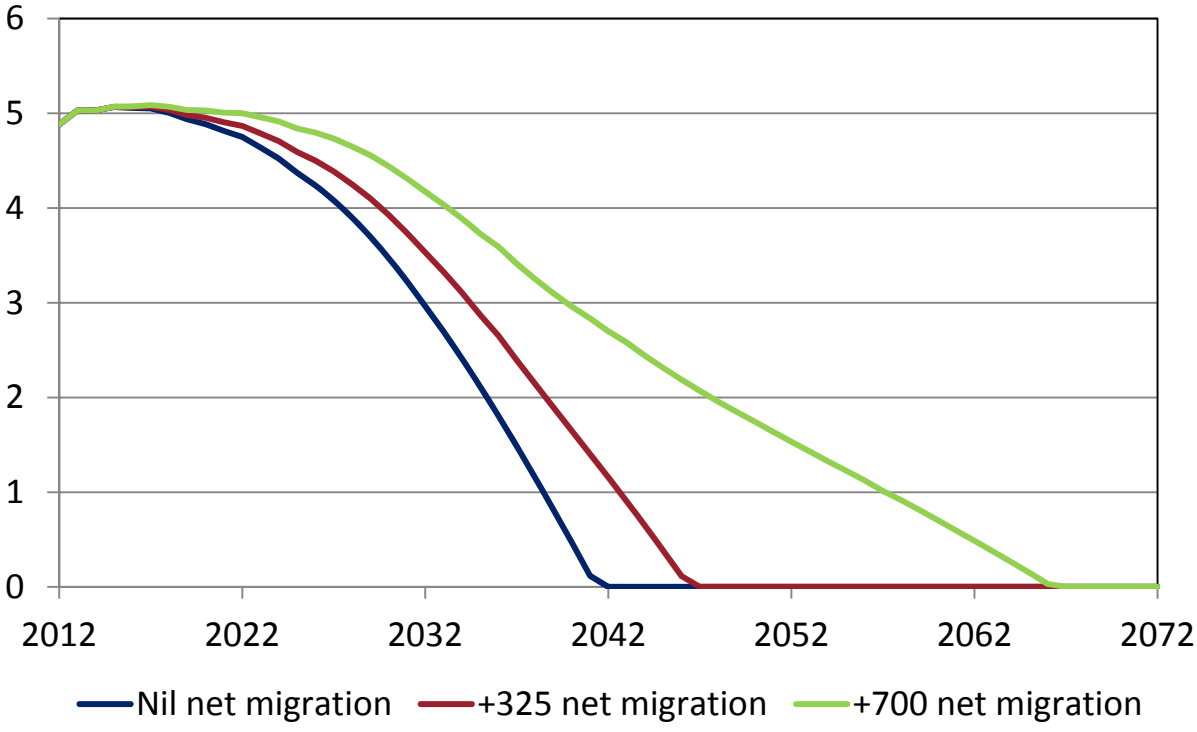


Figure 4.2: Projected Combined Fund balance expressed as a multiple of annual expenditure based on the central assumptions



4.6 In summary, the results are:

Break-even contribution rate

(i) Net nil inward migration

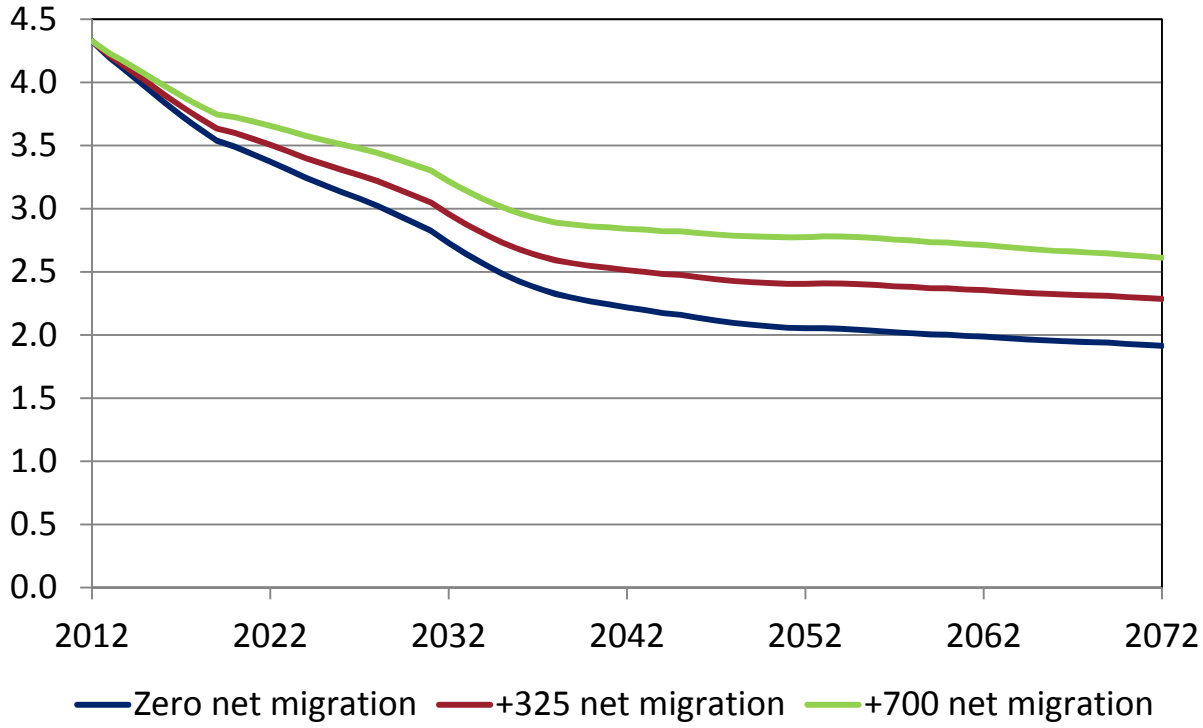
> Assuming net nil future migration, the break-even contribution rate is projected to remain below the current rate of 10.5% up to 2015. Thereafter, the projected contribution rate initially rises rapidly, reaching 16.4% around halfway through the projection period (i.e. after 30 years) and then broadly levelling off at around that level.

(ii) Net inward migration of 325 and 700 people each year

> A similar situation occurs in the case of net inward migration of 325 people each year and inward migration of 700 people each year, with break-even contribution rates reaching 10.5% in 2016 and 2017, respectively, and then 14.5% and 12.9% around halfway through the projection period, respectively. After that, the break-even contribution rates reduce slightly then remain broadly level at around 13.9% and 12.0% respectively.

> The main driver of the projected increase in the break-even contribution rates over time is the ageing of the population, resulting in a decrease in the number of contributors relative to those of pensionable age. This is illustrated in Figure 4.3 below for all three migration scenarios. For example, the number of people of working age for each person over pension age (excluding overseas pensioners) is projected to reduce from around 4.5 in 2012 to around 2.5 around halfway through the projection period on the net inward migration assumption of 325 people each year.

Figure 4.3: Pensioner support ratio (that is, the number of people of working age for each person over pension age)



Fund balance

> If the current rates of contributions remained unchanged, the combined Fund balance is projected to remain broadly constant relative to expenditure for around a decade after the review date, before starting to decline. Ultimately, the Fund would be entirely extinguished and at the point of extinction the contribution rate would need to rise to the break-even rate in order to meet expenditure.

> The table below compares the years by which the Combined Funds are projected to be exhausted under the three central migration assumptions, if the current contribution rates were to continue.

Table 4.2: Projected year of exhaustion of the Combined Fund based on the central assumptions

Migration assumption	Year by which the Combined Funds are projected to be exhausted
Net nil inward migration	2041
Net inward migration of 325 people each year	2046
Net inward migration of 700 people each year	2066

> In practice, to the extent that part of the Fund balance is not readily convertible into cash (for example, fixed assets and debtors) it would be necessary to increase the contribution rate or take alternative action before the balance is fully extinguished. Indeed, it may be considered prudent to increase contribution rates earlier still in order to maintain a reasonable working cash balance. However, given the projected Funded exhaustion dates in Table 4.2 above, if no action is taken in this regard before the next review of the Fund (due no later than 31 December 2015) this would not be expected to unduly compromise the operation of the Fund and consequently any decision regarding potential increases in contribution rates could be postponed until after the 2015 review of the Fund.

5 Illustrative effects on the central results of variations in the assumptions

5.1 The results described in section 4 are dependent on a number of assumptions which have been made with regard to the future experience of the Fund. These assumptions include:

- demographic assumptions, such as future fertility and mortality rates, and future levels of migration
- economic assumptions, such as the future rate of return on the investments of the Funds, and the levels of employment
- fund assumptions, such as the expected numbers and amounts of awards of old age pensions

5.2 The projections are also sensitive to other possible future events which are not the subject of explicit assumptions, for example climate change, pandemic disease or a change to the benefit or contribution structure.

5.3 For these reasons, there is considerable uncertainty about the future progress of the Fund. While the assumptions adopted form a reasonable basis for the review, in practice the Fund's experience, and hence its financial progress, will be different. These differences will be analysed and taken into account in setting assumptions for future reviews. It is important for readers of this report not to place undue emphasis on a single set of projection results. Instead, it is appropriate to consider the effect on the Fund if actual experience differs from the central assumptions.

5.4 GAD has therefore also prepared results on the basis of variant, but still plausible, assumptions.

Demographic assumptions

5.5 In preparing the results in section 4 we have been asked to use three alternative central assumptions for migration. It should be noted these three alternative scenarios are illustrative and should not be taken as setting bounds to the range of possibilities. The higher the level of future net inward migration (assuming it takes place at working ages), the longer any necessary increases to contribution rates could be deferred (other things being equal). Conversely, net outward migration would require contribution rates to be increased sooner.

5.6 Attention should also be given to the possible effects on the results if the experience with regard to future fertility and mortality rates were to differ from the assumptions made. Any changes in future rates of fertility would have little effect on the projected benefit expenditure over the period of the review, since people who are born after the date of the review will not reach pension age during the projection period. However, the level of contribution income would be affected, other things being equal (that is, assuming that extra births do not simply reduce future migration), after an initial period of around 20 years. An increase in the assumed fertility rates would therefore improve the future financial position of the Fund, reducing the required break-even contribution rates after around 20 years, and delaying the point at which contribution rates would need to be increased. Conversely, a decrease in the assumed fertility rates would worsen the future position of the Fund.

5.7 Most changes in the assumed rates of mortality would have little effect on contribution income. However, if it were assumed that rates of mortality would improve (that is, reduce) more quickly in the future, this would increase the projected expenditure on old age pensions, and consequently increase the required break-even contribution rates.

Conversely, slower improvements in the assumed rates of mortality would improve the future financial position of the Fund.

5.8 In practice, levels of migration, fertility and mortality may be linked. For example, higher levels of working age migrants may lead to higher fertility rates.

Economic assumptions

5.9 It has not been necessary to make assumptions regarding the future levels of price inflation or earnings growth for this review. All results are presented in constant earnings terms, and benefit rates and contribution limits are assumed to be increased in line with earnings growth in the future, including the new pension increase arrangement referred to in 7.6, for the reasons in 11.46. Therefore the absolute levels of price inflation or earnings growth do not affect the results in this report.

5.10 For the purposes of projecting the balance in the Combined Funds, it has been necessary to make an assumption regarding the future rate of return of the investments. It has been assumed for the central results that the future rate of return, net of associated expenses, is 2% per annum in excess of earnings increases. This is discussed further in Appendix E commencing at paragraph 11.47. The effects on the projected Fund balance of assuming future investment return 2% a year higher or lower than the assumption for the central results is shown in Table 5.1. The results are illustrated in Figures 5.1, 5.2 and 5.3. It will be noted how sensitive the projected development of the Fund is to the combination of population projection variant and investment return assumption. In particular, a combination of net 325 or 700 inward migration, and investment returns of 4% per annum in excess of earnings increases leads to a sustained and ultimately improving Combined Fund as a multiple of expenditure in the long term.

5.11 The assumed rate of investment return does not affect the required break-even contribution rates, since these are the rates which are sufficient for contribution income in a particular year to meet benefit expenditure and expenditure on administration in that same year, without reference to investment income or the combined Fund balance.

Table 5.1: Effect of assuming future investment return of 0%, 2% or 4% a year in excess of earnings increases on the projected Combined Fund balance expressed as a multiple of annual expenditure

Year	Nil net migration			Net immigration of 325 people a year			Net immigration of 700 people a year		
	0%	2%	4%	0%	2%	4%	0%	2%	4%
2012	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
2017	4.6	5.1	5.5	4.6	5.1	5.5	4.7	5.1	5.5
2022	3.9	4.7	5.8	4.0	4.9	5.9	4.1	5.0	6.0
2032	1.5	3.0	5.1	2.0	3.5	5.8	2.6	4.2	6.5
2042	-	-	3.1	-	1.2	4.8	0.6	2.7	6.6
2052	-	-	0.2	-	-	3.9	-	1.5	7.9
2062	-	-	-	-	-	2.9	-	0.5	9.8
2072	-	-	-	-	-	1.3	-	-	12.3
Year Fund extinguished	2037	2041	2053	2039	2046	beyond 2072	2045	2066	beyond 2072

Figure 5.1: Projected balance in the Funds as a multiple of expenditure for different assumptions on investment return in excess of earnings and nil net migration

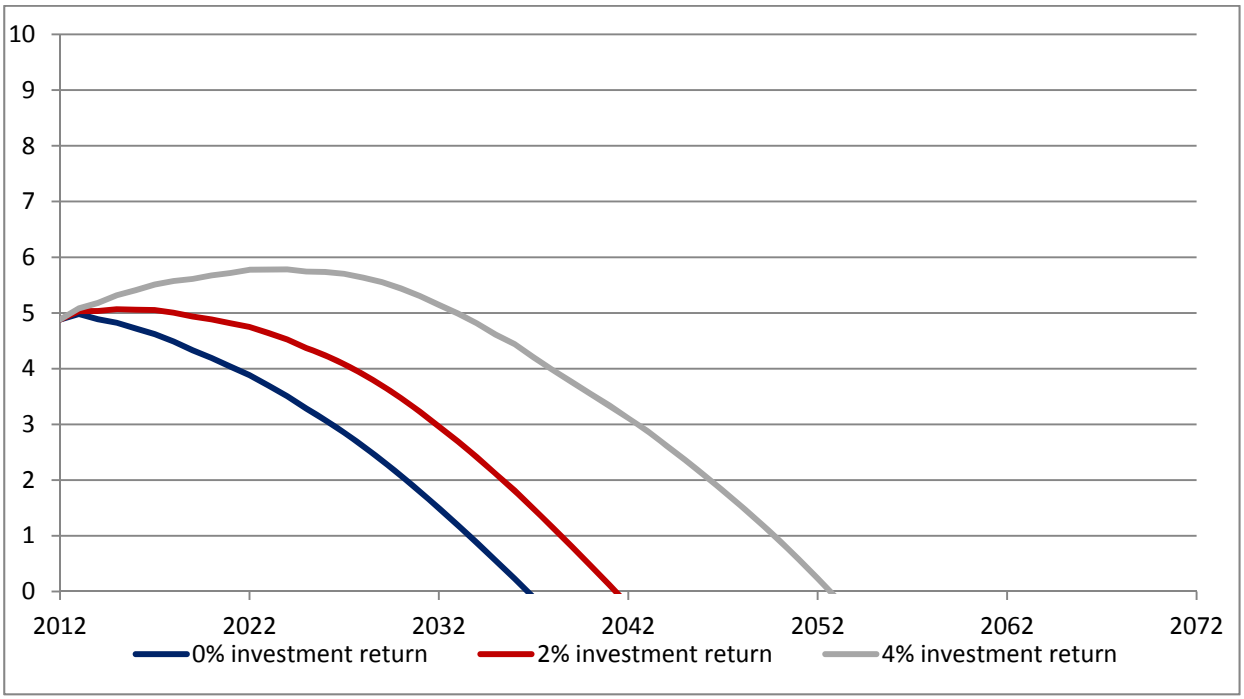


Figure 5.2: Projected balance in the Funds as a multiple of expenditure for different assumptions on investment return in excess of earnings and net immigration of 325 people a year

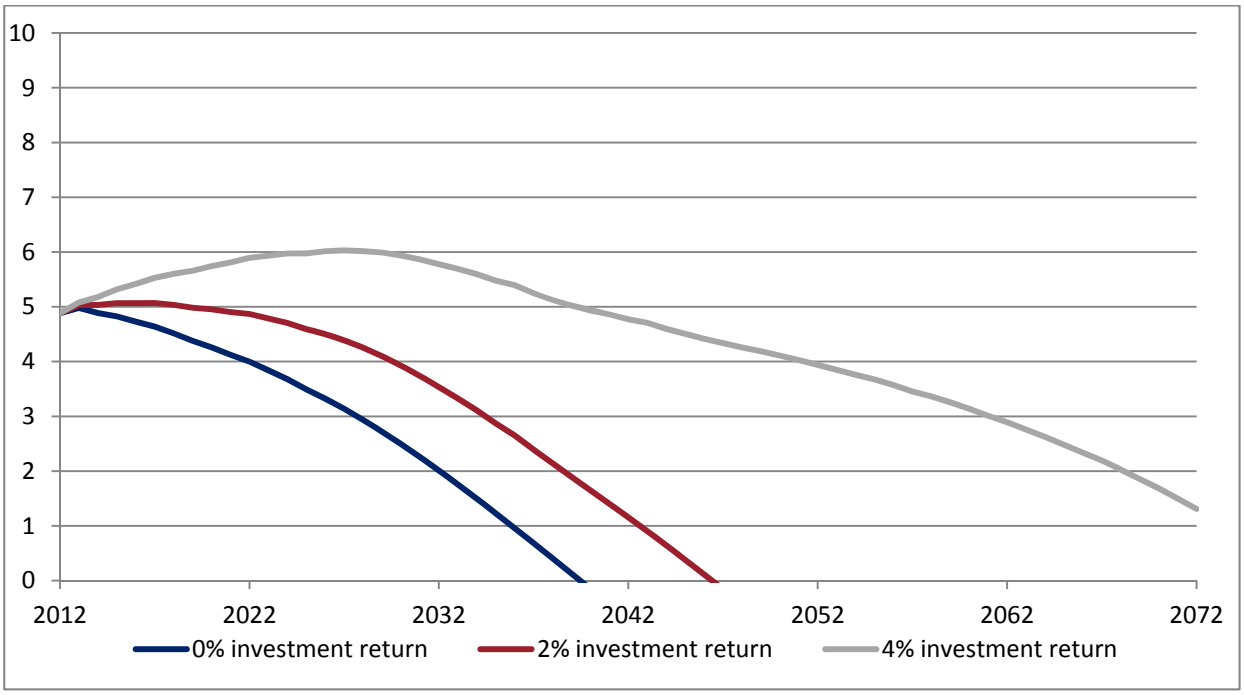
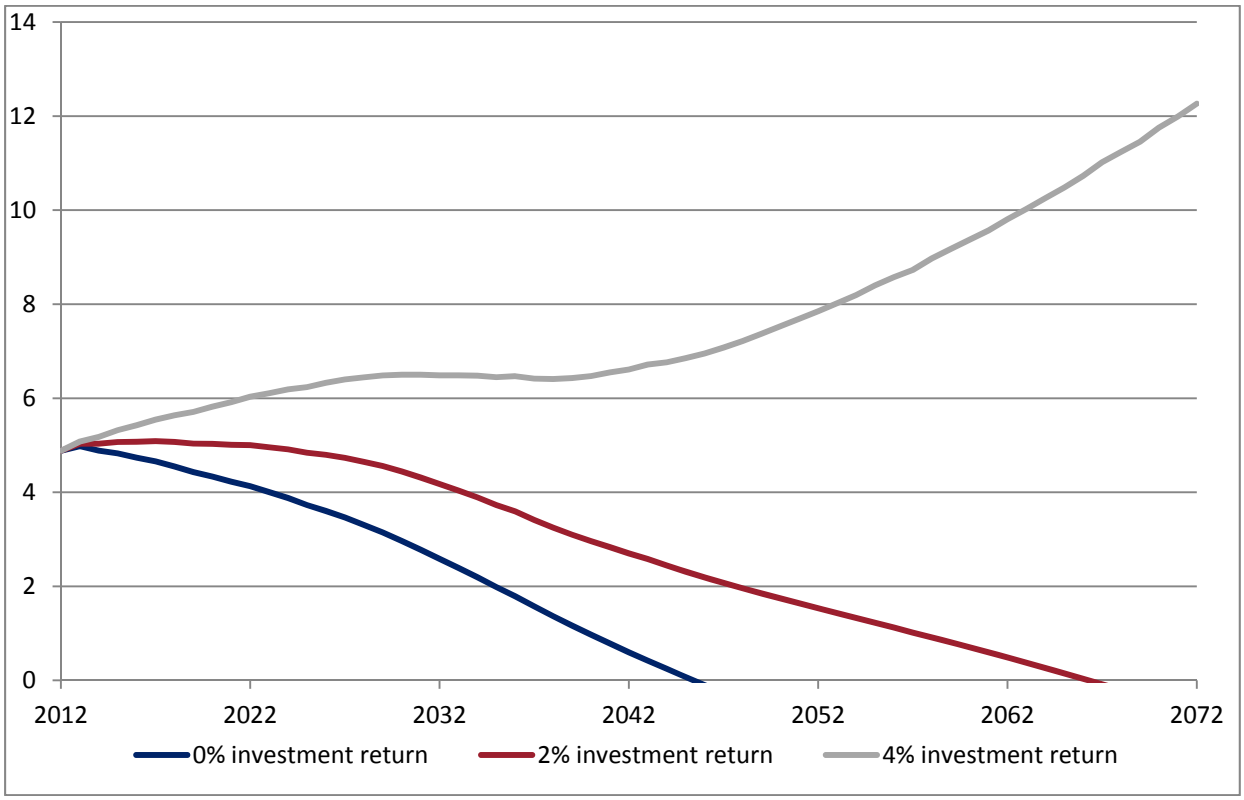


Figure 5.3: Projected balance in the Funds as a multiple of expenditure for different assumptions on investment return in excess of earnings and net immigration of 700 people a year



Fund assumptions

5.12 There is some uncertainty over the future level of expenditure on old age pensions. For example, the current level of expenditure is less than the amount which would be expected if everybody who appears to be entitled to a pension based on past contributions data were to claim one. This feature may be expected because people who have paid contributions in Jersey in the past, but who are no longer resident in Jersey when they attain pension age, may be less likely to claim a pension than residents, particularly where they have contributed for only a short period in Jersey.

5.13 In order to provide an indication of the variability of the results of the review, Table 5.2 indicates the projected break-even contribution rates and the year in which the Combined Fund balance is extinguished (assuming that the current contribution rates continue) if the future costs of old age pensions were to be 10% higher or lower than those assumed for the main projections. This is assumed to apply from 2042 onwards, building up to this level uniformly from 2012. The 10% variation should not be considered to be an upper or lower bound for future old age pension expenditure. Instead, these results should be regarded as an example of the potential effects on the projections if experience were to differ from the assumptions made for the review.

Table 5.2: Illustrative effects of expenditure on old age pensions being either 10% higher or 10% lower from 2042 compared with the central results, with this difference phased in uniformly from 2012

Year	Nil net migration			Net immigration of 325 people a year			Net immigration of 700 people a year		
	Main results	Pensions 10% higher	Pensions 10% lower	Main results	Pensions 10% higher	Pensions 10% lower	Main results	Pensions 10% higher	Pensions 10% lower
				Break-even contribution rate (%)					
2012	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
2017	10.8%	10.9%	10.6%	10.6%	10.8%	10.5%	10.5%	10.6%	10.3%
2022	11.9%	12.2%	11.6%	11.4%	11.7%	11.2%	11.0%	11.3%	10.7%
2032	14.5%	15.3%	13.8%	13.4%	14.1%	12.7%	12.4%	13.0%	11.7%
2042	16.4%	17.8%	15.1%	14.5%	15.7%	13.3%	12.9%	13.9%	11.8%
2052	16.5%	17.8%	15.1%	14.0%	15.1%	12.9%	12.1%	13.0%	11.1%
2062	16.5%	17.9%	15.1%	13.8%	14.9%	12.7%	11.9%	12.8%	11.0%
2072	16.7%	18.1%	15.3%	13.9%	15.0%	12.8%	12.1%	13.0%	11.1%
				Year in which Combined Fund balance is extinguished					
	2041	2039	2046	2046	2042	2059	2066	2048	Beyond 2072

5.14 The results shown in this section have generally considered the effects of varying assumptions in isolation. Although the potential effects of the changes to assumptions are likely to be correlated, the overall effect of separate changes might be broadly estimated by adding the effects of the separate changes.

5.15 For example, with net nil migration, if investment returns are 2% a year lower than our central assumption and old age pension expenditure is 10% higher, then the year in which the Funds would be extinguished could be estimated very approximately as 2035.

6 Comparison of results in this report with those from the report on the previous actuarial review

6.1 In this section we have compared the 150 HoH population projection-based results from the 2009 review with the 325 net inward migration population projection-based results from the 2012 review, this 2012 population projection variant being broadly equivalent to the 150 HoH population projection, which corresponded to 324 individual migrants each year. For this purpose, the 2009 review results are those prepared for the purposes of Appendix G of our report dated 15 November 2011, which allow for the same agreed policy to increase pension age and accompanying assumed effect on contributor participation rates as have been used for the 2012 review (see 11.9). We compare break-even contribution rates and then go on to consider the change in projected date of Fund exhaustion.

Table 6.1: Comparison of results in this report with those from the report on the previous actuarial review – break-even contribution rates (%)

Year of projection	2012	2022	2032	2042	2052	2062
2009 review (150 HoH)	9.4	11.0	13.2	14.7	14.3	14.8
2012 review (+325 migration)	**9.5**	**11.4**	**13.4**	**14.5**	**14.0**	**13.8**

6.2 The main reasons for these changes since the 2009 review are:

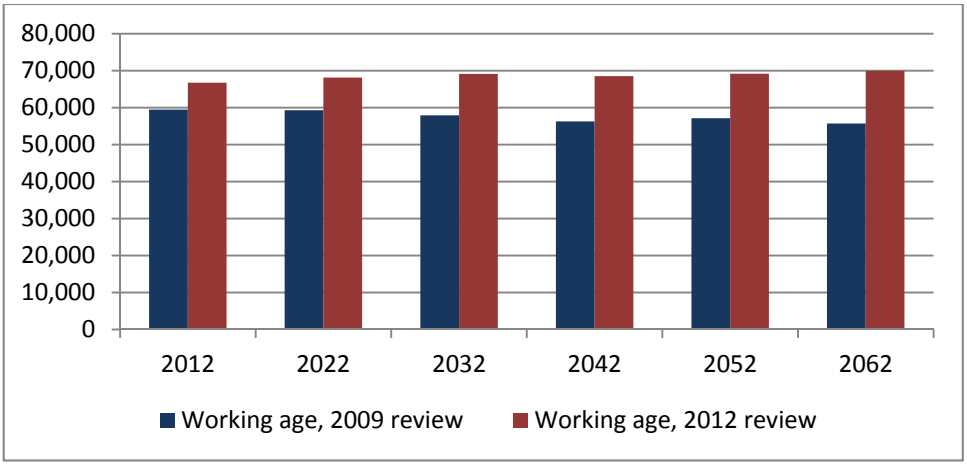
- Population projection updates: a larger and on average younger population at 2012 than expected being built into future projections, mainly due to more recently available census information and birth, death and migration data, together with updated demographic assumptions
- Changes to the projected average proportion of full pension benefit paid out per pensioner in the resident population (the 'average proportion' – see 6.4 below and also Appendix E): for the 2012 review we are using a more sophisticated approach, making use of actual and projected contribution data records, and this increases the proportions in the early years and reduces them in later years.

The following paragraphs discuss this in further detail, but it should be noted that these two main reasons interact and their effects offset one another to some extent.

6.3 Comparing the 150 HoH population projection from the 2009 review with the 325 net inward migration population projection from the 2012 review:

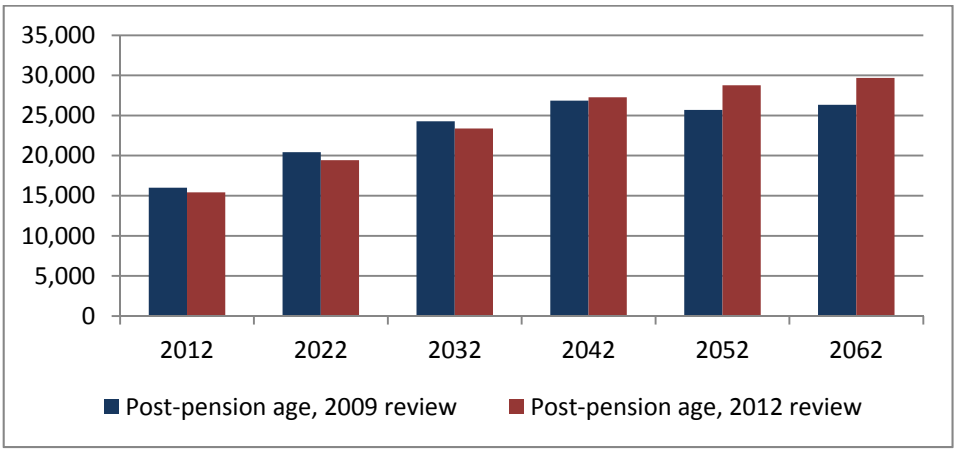
6.3.1. As summarised graphically in Figure 6.1 below, the 2012 review starting working age population is substantially larger than the 2012 working age population projected at the time of the 2009 review. With a larger working age population in the 2012 review than in the 2009 review there are more contributors and thus lower break-even contribution rates in all projection years, as shown in the "In respect of non-pensioners" row in Table 6.2 below.

Figure 6.1: Comparison of working age population projections between the two reviews (2009 review 150 HoH and 2012 review 325 net inward migration)



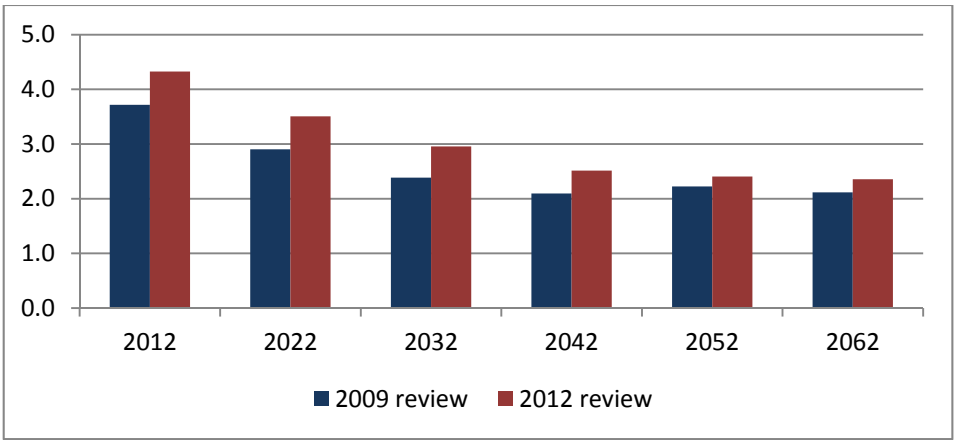
6.3.2. The population at 2012 as a whole is larger in the 2012 review than was projected for 2012 in the 2009 review. However, because the population is younger than before, this initially all comes through in the working age population, as illustrated in Figure 6.1 above. Over time, this younger population ages and moves into pensioner status, resulting in an increase in pensioners in the second half of the projection period, as summarised graphically in Figure 6.2 below. Other things being equal, this results in an increase in break-even contribution rates in the second half of the projection period, as shown in the "In respect of pensioners" row in Table 6.2 below.

Figure 6.2: Comparison of post-pension age population projections between the two reviews (2009 review 150 HoH and 2012 review 325 net inward migration)



6.3.3. As it is the combination of these changes in working age population and pensioner age population on the pensioner support ratio that ultimately drives costs, Figure 6.3 summarises the effect of these changes on the pensioner support ratio.

Figure 6.3: Comparison of pensioner support ratios between the two reviews (2009 review 150 HoH and 2012 review 325 net inward migration)



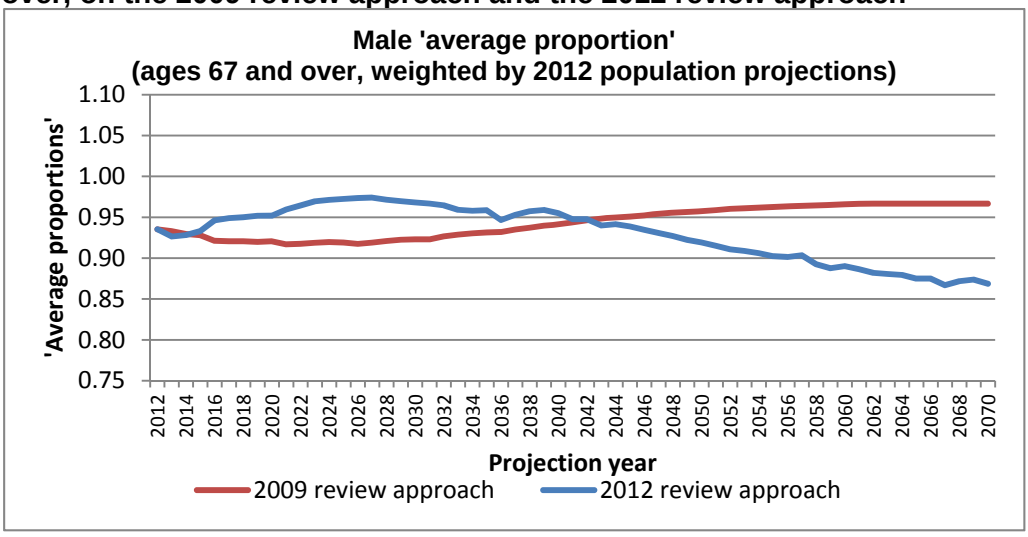
6.4 The second main reason for the change in break-even contribution rates between the 2009 review and the 2012 review is the change in the 'average proportions' (see 6.2). For this purpose, 'average proportion' means:

6.4.1. The proportion of the full standard pension benefit that pensioners receive on average, due to their having contributed to the Social Security Fund for (typically) a shorter period than would be required in order to qualify for the full rate of benefit. This proportion takes account of both local and overseas pensioners but is expressed as a proportion of the resident pensioner population only and can therefore potentially be greater than 100% (for example, if everyone had a contribution record qualifying for the full rate of benefit, everyone claimed their pension and there were 50 overseas pensioners for every 100 pensioners in the resident population then the 'average proportion' concerned would be 150%).

6.4.2. There are different average proportions applicable by age, sex, year and pensioner type, which is why 'average proportions' are referred to in the plural in this report.

6.5 Figure 6.4 below compares the 2012 review 'average proportions' for males aged 67 and over with the 'average proportions' that would have arisen in the 2012 review had we continued to use the 2009 approach rather than the more sophisticated approach referred to in 6.2 above.

Figure 6.4: Comparison of 'average proportions' for males aged 67 and over, on the 2009 review approach and the 2012 review approach



6.6 The effect of the more sophisticated approach adopted in the 2012 review as illustrated in the above chart for males may be summarised as follows (further details are provided in Appendix E):

6.6.1 The use of detailed past contribution records in modelling future new retirements under the 2012 review increases the 'average proportion' sooner in comparison with the 2009 review, where the 'average proportions' among recently retired cases were steadily increased over time to an assumed fixed level around halfway through the projection period. Further, updating the 'average proportion' to move in line with future projected contribution records (themselves based on the population projections) in the later years of the projection period, rather than using a fixed assumption as in the 2009 review approach, reduces the 'average proportion' in the longer term. The consequence of this is that projected Fund expenditure increases in the first half of the projection period and decreases in the second half of the projection period.

6.6.2 Updating the 'average proportion' to move in line with the projected population, as mentioned in 6.6.1, affects the 'average proportion' in two ways:

6.6.2.1 The population projection affects projected contribution records and thus the proportion of the full standard benefit that new future pensioners are projected to receive.

6.6.2.2 Because the 'average proportion' is expressed as a proportion of the resident pensioner population only, changes in the relationship between the numbers of resident and non-resident pensioners over time affects the 'average proportion'.

Given the lack of granularity of the available data, it is not possible to separate out the decline in 'average proportion' over time noted in 6.6.1 between 6.6.2.1 and 6.6.2.2.

6.7 The situation for females is similar, but more complex because there are currently three types of female pensioner: those on their own contribution record, those on their husband's contribution record and widows (on their husband's contribution record). This is discussed further in Appendix E.

6.8 Table 6.2 summarises the effect of these (and more minor) changes on break-even contribution rates, after aligning the emerging cashflow with the 2012 accounts.

Table 6.2: Analysis of changes in break-even contribution rates (%) between the 2009 and 2012 reviews

	2012	2022	2032	2042	2052	2062
2009 review (150 HoH) break-even contribution rate	**9.4**	**11.0**	**13.2**	**14.7**	**14.3**	**14.8**
Population projection updates						
In respect of non-pensioners	0.0	-0.2	-0.5	-0.9	-1.0	-1.3
In respect of pensioners	0.0	0.0	0.0	0.5	1.3	1.3
Combined	0.0	-0.2	-0.5	-0.4	0.3	0.0
Changes in 'average proportions' (see 6.2 and 6.4)	0.0	0.8	1.0	0.4	-0.6	-1.1
Change in administration cost assumption	0.0	-0.1	-0.2	-0.2	-0.2	-0.2
Other	0.1	-0.1	-0.1	0.0	0.2	0.3
2012 review (+325 migration) break-even contribution rate	**9.5**	**11.4**	**13.4**	**14.5**	**14.0**	**13.8**

6.9 Table 6.3 below analyses the main reasons for the change in projected Fund exhaustion date between the 2009 review and the 2012 review, assuming that the current contribution arrangements continue and after aligning the emerging cashflow with the 2012 accounts. This analysis has been carried out by comparing the two sets of results referred to in paragraph 6.1. The sources of any increases in the break-even contribution rates in Table 6.2 would serve to bring forward the projected date of Fund exhaustion in Table 6.3, and vice versa. There is, however, an additional analysis item in Table 6.3 in comparison with Table 6.2, as, in contrast to the break-even contribution rates, the projected Fund exhaustion date is affected by investment returns.

6.10 Again, it will be noted that the two main reasons for the change are population projection updates and changes to the 'average proportions' (see definition in 6.4), and that these interact and their effects offset one another to some extent.

Table 6.3: Analysis of changes in projected Fund exhaustion date between the 2009 and 2012 reviews

Item	Effect (years)	Projected Fund exhaustion date
2009 review (150 HoH)		**2049**
Average 2009 to 2012 investment returns larger than assumed	+2	2051
Population projection updates	+7	2058
Changes in 'average proportions' (see 6.2 and 6.4)	-14	2044
Change in administration cost assumption	+1	2045
Other	+1	2046
2012 review (+325 migration)		**2046**

7 Appendix A: Summary of contributions and benefits

7.1 This appendix summarises the central provisions regarding the contributions and benefits set out in the Social Security (Jersey) Law 1974 as at 31 December 2012, together with subsequent amendments, on which the estimates in this review have been based. GAD is not aware of any other material changes to the Law. This summary concentrates on those aspects of contribution and benefit rules that are significant in financial terms.

Old age pensions

7.2 The current rules on the receipt of old age pensions were introduced for those claiming a pension on or after 1 April 2001[5]. Slightly different rules applied for claims made before this date.

7.3 Under the current rules, the pensioner must have paid contributions for at least six months and, to receive the full rate of old age pension (see Table A.1), must have a life average contribution factor (LACF) of 1.00. The LACF is calculated as the ratio of the contributions paid or credited to the contributions (based on earnings at the standard earnings limit – see paragraph 7.22) that could have been made over a 45 year period between school leaving age and pension age (due to increase in line with increases in State Pension Age). In calculating the LACF, allowance is made for any supplementation contributions (as described in paragraph 7.22) provided in respect of the pensioner.

7.4 For those with an LACF less than 1.00, the benefit is reduced pro rata, but no pension is awarded if the LACF is under 0.10. (This 0.10 can be achieved by combining contributions across reciprocal agreement countries) Women married prior to April 2001 can claim a pension based on their husband's contribution record to the value of 66% of that payable to their husbands. In the event such a woman is widowed, on reaching pensionable age she may claim 100% of the pension payable to her husband. Women married after 2001 are expected to draw a pension based on their own record. Women born after 1957, reaching pensionable age after 2022, when transitional arrangements regarding survivor's benefits have expired (see 7.8) will be able in the event of their husband's death to substitute their own record with that of their husbands in respect of marriages before April 2001 for the duration of the marriage.

7.5 The pension age is 65, with pension age due to increase from 65 to 67 over the period from 2020 to 2031. However, women who entered the Fund before 1 January 1975 retain the right to claim a pension from age 60. It is also possible to claim a pension between the ages of 63 and 65, at the option of the pensioner, if the necessary qualifying conditions are met. In such cases, the amount of old age pension is reduced by 0.58% for each month between the age at which the pensioner starts to receive their pension and the month in which they attain pension age. The pension continues to be paid at this reduced level for life.

7.6 A new method was introduced for increasing the rate of old age pension, which takes into account the increase in the RPI (pensioner) each year as well as the increase in earnings but targets pension increases to be in line with earnings in the long term. This method was used for the first time in 2013, with adjustments to allow for what would have been the situation if the new method had been introduced in October 2012. See also 5.9 and 11.46.

[5] These rules introduced by the Social Security (Amendment No. 14) (Jersey) Law 2000.

Benefits for surviving widows and widowers

7.7 There are two benefits paid to people widowed in April 2001 or later. A survivor's allowance of 1.2 times the standard benefit rate (see Table A.1) is generally paid when a man or woman is widowed and at least one of the spouses was under pension age at the date of death. This allowance is paid for the first 12 months of widowhood, and after that a survivor's pension (based on the standard rate of benefit) is paid up to pension age. The contribution conditions for receiving these benefits are similar to those for the old age pension, based on the contribution record of the deceased spouse. The standard rate is adjusted according to the LACF, with the LACF calculated using the date of death instead of the pension age.

7.8 The qualifying conditions for survivor's pension were recently amended so that, subject to a transitional arrangement for existing cases and future potential cases with dates of birth on or before 31 December 1957, from 2013 only those survivors with at least one dependent child will be awarded survivor's pension.

7.9 For people widowed prior to April 2001, there were three benefits, widow's allowance, widow's pension and widowed father's allowance. The first two of these benefits correspond to survivor's allowance and survivor's pension as described above, but were paid to widows only. Widowed father's allowance was paid to widowers with children under the age of 16. Any of these benefits that were in payment at 1 April 2001 have continued to be paid subject to the same terms.

Benefits on incapacity

7.10 If the contribution conditions are met, an incapacity benefit is paid when an insured person is sick or injured. The rules for incapacity benefits have changed for claims on or after 1 October 2004. From this date, the benefits available are short term incapacity allowance, long term incapacity allowance and incapacity pension.

7.11 Short term incapacity allowance is payable for up to one year, provided the individual has paid at least three months' contributions at any time before the start of the calendar quarter immediately prior to that in which the claim is made. The benefit rate is dependent on the worker's contribution record (allowing for credits) in the calendar quarter ended three months before the start of the quarter in which the claim is made.

7.12 Once short-term incapacity allowance has ceased, the individual may be eligible for long-term incapacity allowance or incapacity pension, subject to meeting the contribution conditions. The amount of long-term incapacity allowance depends on the degree of disablement. The recipient of the allowance is permitted to work. Where disablement is assessed at less than 20%, this allowance is paid in lump sum form. Incapacity pension is paid where the individual is unlikely to be able to work again. The amount of the incapacity pension is dependent on the person's contribution record. The standard rate is adjusted according to the LACF in the same way as for old age pension, with contributions deemed to have been paid from the start of the claim up to pension age.

7.13 For claims prior to October 2004, different benefits were available, i.e. disablement benefit and invalidity benefit (similar to long-term incapacity allowance and incapacity pension, respectively). If these benefits were already in payment at 1 October 2004 they have continued to be paid subject to the same terms.

Family benefits

7.14 A maternity grant is paid for each birth in Jersey where either the mother or her husband has paid contributions for at least three months at any time before the start of the calendar quarter immediately prior to that in which the birth is expected. This is also paid on the adoption of a child. The mother is also entitled to a maternity allowance, for a maximum of 18 weeks, if she satisfies the contribution conditions. These contribution conditions are similar to those for short-term incapacity allowance except that they refer to a contribution period before the beginning of the pregnancy.

Bereavement benefits

7.15 A death grant is paid for all deaths in Jersey where the deceased, the surviving spouse or (in the case of a child) a parent has met the contribution conditions. The conditions are that either a contribution was due in the month of death or that the equivalent of one year's contributions has been paid in the past.

Home Carer's Allowance (HCA)

7.16 With effect from 1 January 2013, the tax-funded Invalid Care Allowance (ICA) was replaced with a contributory (i.e. Social Security Fund) Home Carer's Allowance (HCA), with all existing claimants being transferred automatically to the new benefit but with certain amendments being introduced for future cases.

Insolvency benefit

7.17 This new benefit came into force on 1 December 2012. It provides a benefit to an employee who has lost their job through the insolvency of their employer, and has not been paid all the money owing to them. The benefit covers four components - wages, holiday pay, redundancy payment, payment in lieu of notice. A maximum of £10,000 can be claimed.

Benefit rates

7.18 Table A.1 shows the weekly rates of benefit in force from 2009 to 2013. During this period, benefit rates have been increased annually in line with earnings increases.

Table A.1: Weekly benefit rates from 1 October (£ per week)

Year from 1 October	OAP rate[6] - no dependants	OAP rate - with dependants	Standard rate[6] – no dependants	Standard rate - with dependants	Married woman's old age pension	Survivor's allowance
2009	178.01	295.54	178.01	295.54	117.53	213.64
2010	179.97	298.76	179.97	298.76	118.79	216.02
2011	184.45	306.25	184.45	306.25	121.80	221.41
2012	187.25	310.87	187.25	310.87	123.62	224.70
2013	193.48	321.23	191.38	317.73	127.75	229.67

[6] For those with sufficient contributions, the standard rate is paid for old age pension, survivor's pension, short-term incapacity allowance, incapacity pension and maternity allowance. In 2013, an adjustment was made to increase the standard rate that had been payable from 1 October 2012 for old age pensions and going forward this continues to be payable at a different rate to the other benefits. For long-term incapacity allowance, a proportion of the standard rate is payable depending on the degree of disablement.

Contributions

7.19 Class 1 contributions are required from everyone in the Island between school leaving age and pension age (currently age 65) who works for an employer for more than eight hours a week, with some exceptions. Employees and employers both pay Class 1 contributions, based on the employee's earnings. Those who do not pay Class1 contributions pay Class 2 contributions, unless they are exempt.

7.20 There are some exceptions from the requirement to contribute. In particular, contributions are not required from individuals who have reached pension age and women who were married before 1 April 2001 can "opt out" of paying contributions. In each case, any employer's contributions remain payable.

7.21 Subject to certain rules, contribution credits are provided for students, the unemployed, the sick, survivors (i.e. people whose spouses have died) or those staying at home to care for a child.

7.22 Table A.2 shows the earnings limits which applied between 2009 and 2013. Throughout this period the total rate of contributions payable on earnings up to the Standard Earnings Limit (SEL) has been 10.5%[7], of which 5.2% is paid by the employee and 5.3% by the employer in the case of Class 1. If earnings are above the Lower Earnings Limit (LEL) and below the SEL, the difference between contributions based on actual earnings and contributions based on the SEL is made up through supplementation. With effect from 1 January 2012 an additional contribution of 2.0% of earnings between the SEL and the Upper Earnings Limit (UEL) has been payable by employers and those individuals paying Class 2 contributions. In the case of Class 2, the individual can elect (where permitted) to pay lower earnings-related Class 2 contributions.

Table A.2: Earnings limits

Year	Monthly Lower Earnings Limit (LEL) (£)	Monthly Standard Earnings Limit (SEL) (£)	Monthly Upper Earnings Limit (UEL) (£)
2009	748	3,540	-
2010	770	3,646	-
2011	776	3,686	-
2012	796	3,778	12,500
2013	808	3,834	12,686

7.23 With effect from 2012, the approach to determining the States grant altered so that instead of the States grant representing each year's exact cost of supplementation it is now set in advance by formula at the commencement of each successive three year Medium Term Financial Plan (MTFP), starting 2013, to be the cost of supplementation net of the additional 2.0% contributions between the SEL and UEL two years before the start of each MTFP, increased for each year of the MTFP in line with earnings increases over the year, two years prior to each MTFP. For 2012 itself, the States grant was £61.150 million.

[7] This excludes the 2% contribution payable to the Health Insurance Fund.

8 Appendix B: Fund accounts since 1 January 2010

8.1 The transactions of the Social Security and Social Security (Reserve) Funds in the period 1 January 2010 to 31 December 2012 are summarised in Table B.1, whilst a breakdown of expenditure by benefit is shown in Table B.2.

Table B.1: Summary of income and expenditure and balances of the Jersey Social Security and Social Security (Reserve) Funds in the period 1 January 2010 to 31 December 2012[8]; fund balances are shown at market values, as stated in the accounts

£ thousand	2010	2011	2012
		Social Security Fund	
Income			
Contribution income	150,462	148,837	157,977
States supplementation contributions	66,667	65,348	61,150
Investment return	188	283	300
Investment income transferred from Reserve Fund	-	-	-
Other income	168	165	163
Total income	**217,485**	**214,633**	**219,590**
Expenditure			
Benefit expenditure	178,413	182,902	191,456
Administration expenditure	7,905	6,929	5,629
Total expenditure	**186,318**	**189,831**	**197,085**
Balance at start of year	69,933	55,502	49,787
Excess of income over expenditure	31,167	24,802	22,505
Transfer to Reserve Fund	(45,598)	(30,517)	(10,297)
Balance at end of year	55,502	49,787	61,995
		Social Security (Reserve) Fund	
Balance at start of year	711,889	837,729	854,318
Investment income net of expenses	(645)	(481)	(380)
Transfer to Social Security Fund	-	-	-
Realised and unrealised gains	80,887	(13,447)	97,838
Transfer from Social Security Fund	45,598	30,517	10,297
Balance at end of year	837,729	854,318	962,073
		Combined Funds	
Combined balance at end of year	893,231	904,105	1,024,068
Mean of funds at start and end of year	837,527	898,668	964,087
Mean of funds as multiple of total expenditure	4.5	4.7	4.9
Estimated rate of investment return	10.2%	-1.5%	10.7%

[8] Figures may not sum to totals due to rounding.

8.2 Contribution income (including that from the States) exceeded expenditure in each of the years from 2010 to 2012. Over the three years 2010 to 2012, the average annual rate of investment return is estimated to have been around 6.5% a year. The average combined Fund balance as a multiple of annual expenditure increased over the period, from 4.5 to 4.9.

Table B.2: Expenditure on social insurance benefits in the period 1 January 2010 to 31 December 2012

£ thousand	2010	2011	2012
Pensions	132,760	137,956	146,139
Survivor's benefits	5,295	5,132	4,780
Short term incapacity allowance	12,736	12,692	13,650
Long term incapacity allowance	11,901	12,635	13,416
Invalidity benefit	12,457	11,239	10,043
Maternity allowance	2,197	2,189	2,365
Maternity and adoption grant	556	587	581
Death grant	511	472	482
Total benefit expenditure[9]	**178,413**	**182,902**	**191,456**

8.3 A summary of the assets held of the Social Security Fund and the Social Security (Reserve) Fund as at 31 December 2012 is given in Table B.3.

Table B.3: Summary of the market value of the assets of the Social Security Fund and Social Security (Reserve) Funds as at 31 December 2012

	Social Security Fund		Social Security (Reserve) Fund	
	£million	%	£million	%
Legal & General (unit trusts)				
UK equities	-	-	163.8	17
Bonds	-	-	124.7	13
North America equities	-	-	40.2	4
European equities	-	-	38.9	4
Japanese equity index	-	-	1.7	-
Money Market and Liquidity Fund	-	-	59.4	6
CIF investments				
UK equities - Majedie	-	-	114.1	12
Global equities	-	-	419.2	44
Cash	8.3	13	-	-
Net debtors	48.5	79	-	-
Fixed assets	5.2	8	-	-
Total	**62.0**	**100**	**962.1**	**100**

[9] As shown in Table B.1.

9 Appendix C: Summary of data

9.1 The accuracy of the results of the review is dependent on the data on which they are based. If the data contain material inaccuracies or omissions it could have a significant effect on the results of the review. Data are used in three main areas:

- as the starting point of the projections
- to assess appropriate assumptions about the future, although it will also be necessary to take account of expected future trends
- as a validation of the projection methodology

9.2 The main source of data was the contribution and benefits data provided by the Social Security Department, and we are very grateful for their assistance with the review. The data provided covered the numbers of beneficiaries and the amounts of benefit paid, and the number of contributors and their earnings/contributions. Where possible, we have made some simple checks on the data. The data appear to be of generally good quality, and are adequate for the purposes of the review. Nevertheless, it should be noted that if any of the data used for the calculations are materially incorrect or incomplete, it could have a significant effect on the results.

9.3 The projections of the balance in the Funds have been based on the market value of the assets as at 31 December 2012 as shown in the 2012 accounts. The results for the projection of the fund balance should be seen in the context of the general volatility of market values of some classes of investment.

9.4 A summary of the membership data is set out below (less material benefit counts have been excluded).

Table C.1: Summary of the average number of contributors for the years 2010 to 2012

Contribution class	2010	2011	2012
Men – Class 1[10]	24,278	24,236	23,712
Men – Secondary only	435	458	481
Men – Class 2[11]	3,564	3,424	3,281
Women – Class 1	20,044	20,247	20,223
Women – Secondary only	3,383	3,232	3,099
Women – Class 2	623	631	643

[10] These numbers include those who, in the period concerned, are recorded as paying Class 1 and receiving contribution credits.
[11] These numbers include those who, in addition to paying Class 2, are also recorded as paying Class 1 and/or receiving credits in the period concerned.

Table C.2: Summary of the number of beneficiaries for the years 2010 to 2012

	2010	2011	2012
Old age pensions[12]:			
Men	10,914	11,208	11,687
Women – pension based on husband's contributions	4,739	4,984	5,218
Women – pension based on own contributions	5,981	6,275	6,550
Widows – pension based on deceased husband's contributions	4,616	4,435	4,371
Incapacity benefits[13]:			
Short-term incapacity allowance – men	1,105	957	998
Short-term incapacity allowance – women	757	618	621
Long-term incapacity allowance (LTIA) – men	1,065	1,140	1,215
LTIA – women	770	849	956
Lump sum awards of LTIA – men	192	214	197
Lump sum awards of LTIA – women	107	123	114
Disablement benefit – men	558	538	523
Disablement benefit – women	149	144	142
Invalidity benefit – men	552	490	419
Invalidity benefit – women	587	529	479
Survivor benefits:			
Survivor's allowance and pension – men	116	120	117
Survivor's allowance and pension – women	859	847	777

[12] These are numbers mid-way through the period
[13] These are numbers in receipt of the benefit at the period end, except in the case of lump sum awards of long-term incapacity allowance (these are the number of awards made during the course of the period)

10 Appendix D: Demographic background

10.1 The population projections adopted for this review are those prepared by the States' Statistics Unit using their 2012 population projection model.

10.2 The population projections adopted for the 31 December 2009 review were those prepared by the States' Statistics Unit for the 2006 review, but allowing for the actual population in 2009 being higher than in the projections and assuming that it would fall back to be in line with the projections for all years from 2013. The March 2001 census was used as the starting point for those projections, and this was then adjusted in line with recorded births, deaths and migration up to the end of 2007.

10.3 For the 2012 population projection model, the 2011 census provides a baseline of the number of known residents in Jersey at March 2011 by age and gender. The population model uses this baseline population, rolled forward to year-end 2012 in line with actual births, deaths and migration, and projects the population forwards, year by year, by adding births, subtracting deaths, and adjusting for inward and outward migration.

10.4 There are consequently three main assumptions that are needed for the future:

> rates of mortality
> fertility rates
> migration

Each of these assumptions is discussed below.

Rates of mortality

10.5 The assumed rate of mortality in Jersey was based on the projected mortality rates for England in the 2010 population projections for the United Kingdom, published by the Office for National Statistics. These projections make a significant allowance for future improvements in life expectancy. These English mortality rates were however adjusted in order to reflect better the specific experience in Jersey. The adjustment factors applied are shown in the following table.

Table D.1: Ratio of the assumed mortality rates for Jersey to the corresponding rates for England (based on the 2010 UK population projections)

Age group	Men	Women
0 to 14	100%	100%
15 to 59	100%	90%
60 to 74	95%	90%
75 and over	95%	95%

10.6 Rates below 100% in this table indicate that individuals in these age groups in Jersey are assumed to experience lower rates of mortality than their counterparts in England. Therefore, for example, someone in Jersey aged 60 is assumed to have a longer life expectancy than someone aged 60 in England.

10.7 The life expectancies at age 67 based on these assumptions are shown in Table D.2, according to the year in which the person attains age 67. The life expectancy at age 67 is generally more important for social security schemes than the life expectancy at birth because such schemes are primarily concerned with the payment of pensions to those

in old age. (The use of age 67 in this context anticipates the agreed policy to increase pension age to 67 by 2031.)

Table D.2: Approximate life expectancy at age 67[14]

Year in which attain age 67	**2012**	**2032**	**2052**
Life expectancy at age 67			
Men	20 years	22 years	24 years
Women	22 years	25 years	27 years

Fertility rates

10.8 The fertility rate relates to the number of children born to each woman. In order to reproduce itself over the long-term, ignoring migration, a population needs a total fertility rate of about 2.1, that is, 2.1 children born per woman. This is greater than 2 because of the need to offset the effect of women who die before completing their reproductive life cycle.

10.9 As was the case at the time of the 2009 review, based on data on the numbers of births in Jersey, it was assumed for the population projections that the total fertility rate would be 1.57 in all future years. This is significantly lower than the rate in the UK; for example, the 2010-based central projection for England and Wales assume that the total fertility rate in the long-term would average 1.85.

Migration

10.10 Migration to and from Jersey is particularly difficult to predict and it is for this reason that we have prepared results for the review of the Fund on three different migration assumptions, as agreed with the Social Security Department. The three assumptions are:

- net nil migration in each year from 2012
- net inward migration of 325 people a year for all years from 2012
- net inward migration of 700 people a year for all years from 2012

10.11 The assumptions about inward and outward migration need to cover three aspects:

- the number of people migrating,
- the ages of such migrants, and
- the sex of such migrants

From the information provided to us, we have observed that the implied average age of inward migrants is currently 31, while the implied average age of outward migrants is currently 35 (males and females combined), with the implied averages varying to a degree over the projection period. Due to changes in the underlying population projection model between the two reviews, it was not possible to explore in detail the change in the implicit assumed age distributions for inward and outward migrants between the 2009 review and the 2012 review.

[14] These are "cohort" life expectancy figures, which means that they allow for the projected rate of mortality in future years; for example, the life expectancy for someone who reaches age 65 in 2012 reflects the mortality rate at age 65 in 2012, at age 66 in 2013, at age 67 in 2014 etc. Figures are provided by the Jersey Statistics Unit.

Projected population numbers

10.12 Summaries of the projected population of Jersey by age and sex are shown at the end of this section. In addition to the population numbers, the tables also show the "pensioner support ratio" (PSR), which is defined as the number of people of working age per person over pension age. The PSR does not allow for overseas pensioners. It does, however, allow for the agreed policy to increase pension age, to 67 by 2031.

10.13 The PSR is particularly relevant to social security systems that are financed on a pay-as-you-go basis. This is because, under this financing system, income from current contributors is expected to cover the current benefit and administration expenditure. Therefore, the greater the number of people of working age for each person who has reached pension age, the lower the required contribution rate (other things being equal).

10.14 The projected pattern of the PSR over the period up to 2072 is shown in Figure D.1. With no allowance for future net migration, the PSR is projected to fall from the current level of around 4.3 to around 2.1 in 2050 and then steadily decrease to around 1.9 over the rest of the projection period. Other things being equal, this would suggest that the pay-as-you-go contribution rate (in respect of old age pensions) would have to double by 2050. With allowance for inward migration of 325 people and 700 people each year the fall in the PSR is slightly less dramatic, falling to about 2.4 and 2.8 respectively in 2050 and then decreasing steadily to around 2.3 and 2.6 by the end of the projection period.

Figure D.1: Pensioner support ratio (that is, the number of people of working age for each person over pension age)

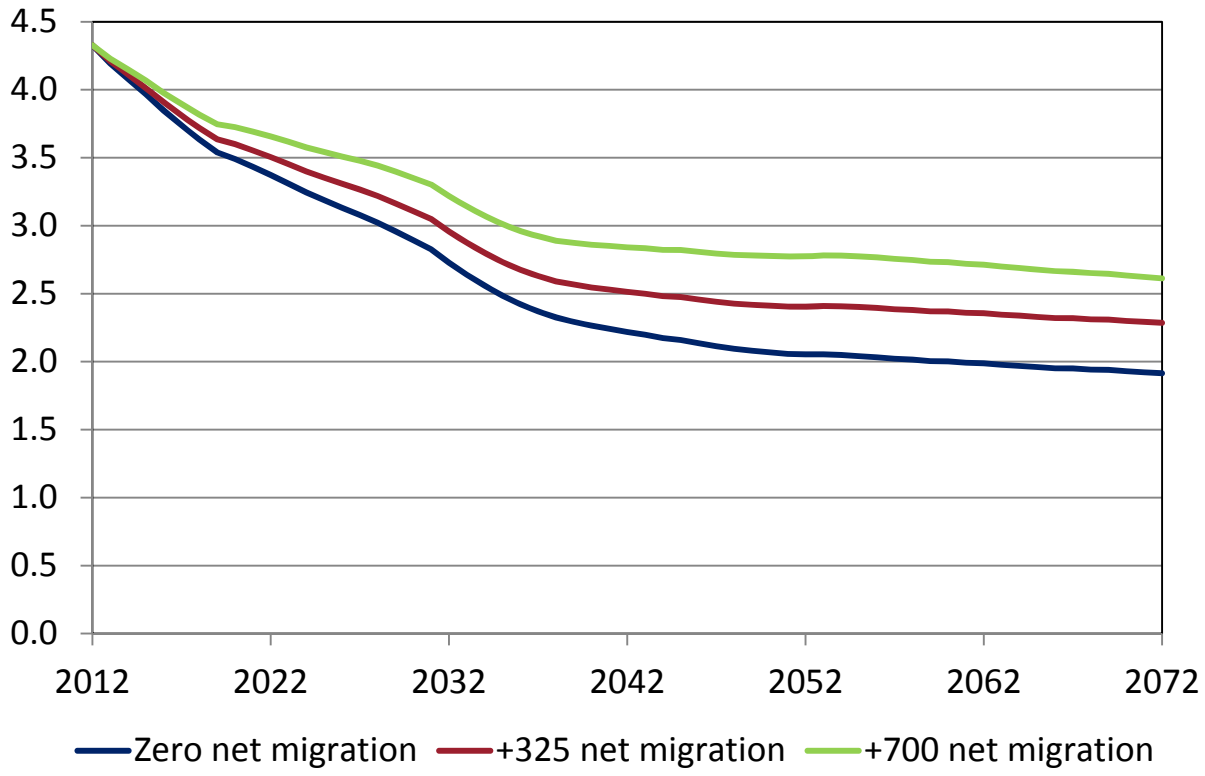


Table D.3: The projected population of Jersey at the year end from 2012 to 2072 assuming net nil future migration and the fertility and mortality assumptions described above

	2012	2017	2022	2032	2042	2052	2062	2072
Males								
0-9	5,261	5,217	4,944	4,662	4,535	4,354	4,087	3,910
10-19	5,539	5,438	5,528	5,207	4,940	4,803	4,615	4,345
20-29	6,051	6,031	5,851	5,702	5,329	5,028	4,857	4,646
30-39	7,179	6,772	6,491	6,212	5,977	5,566	5,229	5,023
40-49	8,290	7,448	6,934	6,441	6,205	5,975	5,579	5,250
50-59	6,807	7,635	7,691	6,509	6,151	5,971	5,772	5,410
60-69	5,070	5,497	6,062	6,915	5,913	5,668	5,549	5,399
70-79	3,119	3,525	4,142	5,056	5,847	5,088	4,964	4,924
80 and over	1,523	1,995	2,372	3,583	4,864	6,102	6,270	6,413
Total	**48,839**	**49,558**	**50,014**	**50,286**	**49,761**	**48,555**	**46,923**	**45,320**
Females								
0-9	5,224	5,218	4,907	4,625	4,498	4,317	4,050	3,872
10-19	5,226	5,315	5,482	5,155	4,887	4,749	4,560	4,289
20-29	5,990	5,796	5,610	5,690	5,303	4,996	4,820	4,606
30-39	7,135	6,675	6,322	5,940	5,935	5,524	5,190	4,987
40-49	8,265	7,309	6,845	6,228	5,910	5,904	5,511	5,188
50-59	7,003	7,809	7,744	6,491	5,990	5,726	5,732	5,366
60-69	5,286	5,754	6,406	7,141	6,033	5,628	5,417	5,447
70-79	3,477	3,953	4,599	5,643	6,348	5,426	5,124	4,980
80 and over	2,553	2,887	3,243	4,637	6,243	7,645	7,698	7,587
Total	**50,159**	**50,716**	**51,159**	**51,549**	**51,148**	**49,914**	**48,102**	**46,321**
Persons								
0-9	10,484	10,434	9,851	9,286	9,032	8,671	8,137	7,782
10-19	10,765	10,753	11,010	10,362	9,828	9,552	9,175	8,633
20-29	12,042	11,827	11,461	11,391	10,632	10,023	9,677	9,252
30-39	14,313	13,446	12,813	12,152	11,912	11,090	10,419	10,010
40-49	16,555	14,757	13,779	12,669	12,115	11,879	11,090	10,439
50-59	13,810	15,445	15,435	13,000	12,141	11,697	11,504	10,776
60-69	10,356	11,251	12,468	14,056	11,946	11,295	10,967	10,846
70-79	6,597	7,478	8,741	10,699	12,195	10,514	10,088	9,904
80 and over	4,077	4,881	5,615	8,221	11,107	13,748	13,968	13,999
Total	**98,998**	**100,274**	**101,173**	**101,835**	**100,909**	**98,469**	**95,025**	**91,641**
Persons								
0-15	16,830	16,765	16,468	15,355	14,824	14,319	13,523	12,857
16-pen age[15] (W)	66,744	65,888	65,334	63,286	59,334	56,588	54,221	51,749
Pen age and over (P)	15,424	17,621	19,371	23,194	26,751	27,562	27,280	27,035
Total	**98,998**	**100,274**	**101,173**	**101,835**	**100,909**	**98,469**	**95,025**	**91,641**
PSR (=W/P)	4.3	3.7	3.4	2.7	2.2	2.1	2.0	1.9

[15] Pension age is due to increase from 65 to 67 over the period from 2020 to 2031.

Table D.4: The projected population of Jersey at the year end from 2012 to 2072 assuming net future immigration of 325 people each year and the fertility and mortality assumptions described above

	2012	2017	2022	2032	2042	2052	2062	2072
Males								
0-9	5,261	5,310	5,178	5,183	5,296	5,359	5,341	5,394
10-19	5,539	5,509	5,701	5,631	5,645	5,756	5,818	5,804
20-29	6,051	6,248	6,202	6,309	6,231	6,239	6,341	6,403
30-39	7,179	7,035	7,027	7,159	7,240	7,169	7,178	7,280
40-49	8,290	7,595	7,262	7,244	7,405	7,492	7,438	7,457
50-59	6,807	7,701	7,846	6,938	7,006	7,193	7,295	7,261
60-69	5,070	5,520	6,119	7,093	6,327	6,460	6,675	6,805
70-79	3,119	3,529	4,154	5,107	5,993	5,430	5,633	5,889
80 and over	1,523	1,997	2,376	3,596	4,906	6,226	6,580	7,074
Total	**48,839**	**50,444**	**51,865**	**54,259**	**56,049**	**57,323**	**58,299**	**59,367**
Females								
0-9	5,224	5,312	5,142	5,146	5,260	5,322	5,304	5,357
10-19	5,226	5,385	5,658	5,584	5,598	5,708	5,770	5,756
20-29	5,990	6,028	5,984	6,328	6,243	6,250	6,351	6,411
30-39	7,135	6,886	6,782	6,801	7,105	7,027	7,033	7,132
40-49	8,265	7,422	7,091	6,874	6,934	7,229	7,163	7,176
50-59	7,003	7,870	7,877	6,836	6,699	6,786	7,079	7,028
60-69	5,286	5,771	6,451	7,289	6,366	6,289	6,402	6,701
70-79	3,477	3,957	4,608	5,684	6,474	5,712	5,703	5,853
80 and over	2,553	2,890	3,251	4,654	6,289	7,771	7,994	8,220
Total	**50,159**	**51,521**	**52,844**	**55,198**	**56,968**	**58,093**	**58,801**	**59,635**
Persons								
0-9	10,484	10,622	10,320	10,329	10,557	10,681	10,645	10,751
10-19	10,765	10,894	11,359	11,215	11,243	11,464	11,589	11,560
20-29	12,042	12,276	12,186	12,637	12,474	12,489	12,692	12,814
30-39	14,313	13,921	13,809	13,960	14,345	14,196	14,211	14,413
40-49	16,555	15,016	14,354	14,118	14,339	14,721	14,601	14,633
50-59	13,810	15,571	15,723	13,774	13,705	13,980	14,374	14,289
60-69	10,356	11,291	12,570	14,382	12,693	12,748	13,077	13,506
70-79	6,597	7,486	8,762	10,791	12,467	11,142	11,336	11,742
80 and over	4,077	4,887	5,627	8,250	11,195	13,997	14,575	15,294
Total	**98,998**	**101,965**	**104,709**	**109,457**	**113,017**	**115,416**	**117,100**	**119,003**
Persons								
0-15	16,830	17,046	17,158	16,931	17,206	17,473	17,478	17,576
16-pen age (W)	66,744	67,271	68,117	69,146	68,541	69,174	69,933	70,552
Pen age and over (P)	15,424	17,647	19,433	23,380	27,271	28,770	29,689	30,875
Total	**98,998**	**101,965**	**104,709**	**109,457**	**113,017**	**115,416**	**117,100**	**119,003**
PSR (=W/P)	4.3	3.8	3.5	3.0	2.5	2.4	2.4	2.3

Table D.5: The projected population of Jersey at the year end from 2012 to 2072 assuming net future immigration of 700 people each year and the fertility and mortality assumptions described above

	2012	2017	2022	2032	2042	2052	2062	2072
Males								
0-9	5,261	5,418	5,448	5,782	6,174	6,516	6,784	7,104
10-19	5,539	5,590	5,900	6,120	6,455	6,852	7,203	7,483
20-29	6,051	6,498	6,608	7,009	7,271	7,635	8,053	8,428
30-39	7,179	7,339	7,645	8,253	8,699	9,020	9,427	9,886
40-49	8,290	7,764	7,641	8,171	8,792	9,245	9,585	10,006
50-59	6,807	7,777	8,024	7,434	7,994	8,605	9,055	9,399
60-69	5,070	5,547	6,186	7,299	6,805	7,374	7,976	8,430
70-79	3,119	3,534	4,168	5,165	6,162	5,825	6,405	7,004
80 and over	1,523	1,999	2,381	3,610	4,954	6,369	6,939	7,838
Total	**48,839**	**51,466**	**54,001**	**58,844**	**63,306**	**67,442**	**71,428**	**75,578**
Females								
0-9	5,224	5,421	5,413	5,746	6,139	6,481	6,749	7,069
10-19	5,226	5,466	5,860	6,078	6,414	6,812	7,163	7,443
20-29	5,990	6,297	6,416	7,066	7,328	7,695	8,116	8,494
30-39	7,135	7,130	7,314	7,797	8,458	8,764	9,161	9,609
40-49	8,265	7,551	7,376	7,620	8,116	8,760	9,072	9,469
50-59	7,003	7,939	8,030	7,234	7,517	8,011	8,637	8,949
60-69	5,286	5,790	6,502	7,460	6,750	7,052	7,540	8,151
70-79	3,477	3,961	4,619	5,732	6,620	6,042	6,372	6,863
80 and over	2,553	2,895	3,259	4,674	6,341	7,916	8,336	8,951
Total	**50,159**	**52,450**	**54,788**	**59,407**	**63,684**	**67,533**	**71,146**	**74,998**
Persons								
0-9	10,484	10,839	10,861	11,528	12,313	12,997	13,533	14,173
10-19	10,765	11,056	11,760	12,198	12,869	13,664	14,366	14,926
20-29	12,042	12,795	13,024	14,076	14,599	15,330	16,169	16,921
30-39	14,313	14,468	14,959	16,049	17,157	17,784	18,588	19,495
40-49	16,555	15,315	15,017	15,791	16,908	18,005	18,657	19,475
50-59	13,810	15,716	16,054	14,668	15,511	16,616	17,691	18,348
60-69	10,356	11,337	12,687	14,759	13,555	14,427	15,517	16,581
70-79	6,597	7,495	8,787	10,897	12,782	11,867	12,777	13,867
80 and over	4,077	4,894	5,640	8,285	11,296	14,284	15,275	16,789
Total	**98,998**	**103,915**	**108,789**	**118,252**	**126,990**	**134,975**	**142,574**	**150,575**
Persons								
0-15	16,830	17,369	17,955	18,744	19,948	21,107	22,030	23,008
16-pen age (W)	66,744	68,868	71,329	75,912	79,171	83,703	88,073	92,256
Pen age and over (P)	15,424	17,678	19,505	23,596	27,871	30,164	32,470	35,311
Total	**98,998**	**103,915**	**108,789**	**118,252**	**126,990**	**134,975**	**142,574**	**150,575**
PSR (=W/P)	4.3	3.9	3.7	3.2	2.8	2.8	2.7	2.6

11 Appendix E: Methodology and technical assumptions

11.1 The calculations for this review involve projecting contribution income, benefit expenditure and administration expenses over the 60 years from 2012 to 2072. Two main sets of results are presented in this report:

> The projected "break-even" contribution rates
> The combined balances in the Social Security and Social Security (Reserve) Funds ("the Funds"), as a multiple of expenditure, assuming that the current rates of contribution remain unchanged

11.2 The break-even contribution rates are the rates that would be required in order for contribution income to equal expenditure on benefits and administration costs, assuming that for this purpose supplementation continues to be calculated as at present and that the States grant and the 2% contribution payable on earnings between the Standard Earnings Limit (SEL) and Upper Earnings Limit (UEL) by employers and those individuals paying Class 2 contributions will continue to be calculated as at present (see Appendix A, paragraph 7.22). The break-even contribution rates are the contribution rates that would be required if the Fund were following the pay-as-you-go financing approach. One of the main factors likely to cause significant changes in these break-even rates in the future is the change in the relative numbers of contributors and pensioners. These factors are mainly demographic but also include social and economic factors such as changes in the proportion of women working and the rate of unemployment.

11.3 In projecting the future combined balance in the Funds, as a multiple of annual expenditure, it is assumed that the current contribution rates continue to apply in all future years. While projections of fund balances are subject to a great deal of uncertainty, these results give an indication as to the extent to which the build-up of assets in the Reserve Fund can be used to delay increases to contribution rates which would otherwise be required. If no fund of assets had been built up, the contribution rate would need to follow the break-even rates.

11.4 Where results are given as monetary values, they are shown in constant 2012 earnings terms. This is a convenient approach because it is assumed that all benefit rates and contribution limits increase in the future in line with earnings (see also 11.45 below).

11.5 The methodology and assumptions described in this section reflect the agreed policy to increase pension age from 65 to 67 over the period from 2020 to 2031.

Assumptions

11.6 In order to make projections of future income and expenditure, it is necessary to make a large number of assumptions about likely future experience. Some of the key assumptions relate to future changes in the population, which is discussed in Appendix D of this report. The other assumptions mainly relate to the numbers of beneficiaries and contributors, the average level of benefits payable and the average earnings of contributors. An explanation of how the central assumptions were determined is given below.

11.7 The results of the review are sensitive to the assumptions adopted. Although the assumptions as a whole are considered to form a reasonable basis for the review, in practice, it is not possible to predict the future with certainty and therefore the Fund's future experience may differ from that assumed. It is therefore important to consider how the results of the review would change if experience followed a different set of assumptions. This is discussed in section 5.

Population projections

11.8 Future expenditure has been calculated on the basis of three different population projections with differing migration assumptions.

- net nil migration in each year from 2012
- net inward migration of 325 people a year for all years from 2012
- net inward migration of 700 people a year for all years from 2012

Appendix D contains further details on this, and on the method and assumptions used in the population projections.

Contribution income

11.9 The projected numbers of contributors in future years have been obtained by applying assumed proportions of men and women contributing at each age in the different contribution classes to the projected numbers in the population, allowing for the increase in State Pension Age (SPA) to 67 by 2031 by assuming that participation rates are unchanged for ages up to 64 and that for older ages up to SPA the participation rates are constant at the rate for age 64 (the 'constant participation' approach). These proportions were derived from statistics of the numbers contributing in the past. The analysis was made on the basis of the average position throughout the year, and thus allows for the average number of seasonal workers.

11.10 At the time of the 2009 review, the data showed that over the previous twenty years there had been a gradual increase in the proportion of males in the population paying Class 1 contributions, for most age groups. The 2010 to 2012 data reflects a slowing or slight reversal of this trend. We have therefore continued to use average proportions over recent periods (from 2004 to 2009 in the 2009 review and from 2010 to 2012, for the 2012 review) as the basis for the future proportions of the population paying Class 1 contributions, given that this assumes that the gradual increase in these proportions seen in recent years will not be reversed, but also that it will not continue in future years.

11.11 At the time of the 2009 review, the proportion of males paying Class 2 contributions was observed to have been decreasing gradually since 1993, although the fall had levelled off in recent years. It had been assumed that the proportions would stabilise at the levels seen since 2004 and therefore the future proportions of the male population paying Class 2 contributions were again based on the average proportions over the period from 2004 to 2009. The 2010 to 2012 data, however, exhibit a continuing decline in Class 2 numbers. Therefore, while we have continued to assume that recent proportions would stabilise, we have based the proportions for the 2012 review on averages over 2010 to 2012.

11.12 The proportion of females in the population paying Class 1 contributions plus those (mainly married women) who are exempt from these contributions but for whom their employers pay secondary contributions had been generally increasing over the twenty years to 2009, with more stability in recent years. In contrast, those females electing not to pay contributions and instead to be awarded a pension based on their husband's record are declining in number, consistent with the option having been removed for women who married on or after 1 April 2001, replaced over time by standard Class 1 contributor cases. Consistent with the approach for males, we have used the average proportions over the years 2010 to 2012 as the basis for the future proportions of the female population either paying Class 1 contributions or exempt, as described above. An adjustment has been made to allow for some increase in the participation of women at the oldest ages, as a result of the increase in pension age from 60 to 65, with further adjustments for increases to 67, as mentioned above.

11.13 For existing females who are married women and have opted to be exempt from Class 1 contributions, we have assumed that the proportions of the female population that they represent will remain the same as each cohort ages up to age 60 (2009: 55). After that we have assumed that the proportion for each cohort will decline, reflecting their gradual withdrawal from the labour market. We have assumed that the proportion of other women who are exempt from Class 1 contributions will be stable at the average level for the years 2010 to 2012. The proportion of women who pay Class 1 contributions has been derived by subtracting the proportions that are exempt from the total proportion who are either Class 1 contributors or who are exempt (as described above).

11.14 For women paying Class 2 contributions the data are sparse and it is difficult to observe clear trends, although it does appear that in recent years there has been an increase in the proportion of women paying Class 2 contributions. We have assumed that the age-specific proportions of self-employed females contributing would remain constant at their average levels over the period 2010 to 2012 (2004 to 2009 for the 2009 review).

11.15 A summary of the proportions of the population that are assumed to contribute is given in the two tables below. It should be noted that due to there having been a census carried out between the 2009 and 2012 reviews, the 2012 review is based on much more recent population data than the 2009 review and consequently the figures in the tables below are not immediately comparable with those on our report on the 2009 review. Setting aside the effect of any changes in population numbers themselves, the Class 1 proportions for males under age 45 and those for Class 2 – as well as Class 1 females under age 40 – have reduced in comparison with the 2009 review due to a reduction in observed contributor numbers, while the opposite is the case for females in Class 2. The effect of increasing SPA on the detailed underlying proportions is described in paragraph 11.9 above.

Table E.1: Summary of the proportion of the male and female populations assumed to be paying Class 1 or Class 2 contributions for men, or Class 2 contributions for women; these proportions are the same for all years

Age group	Men – Class 1	Men – Class 2	Women – Class 2
14 to 29	68.6%	0.9%	0.5%
30 to 39	89.9%	6.0%	1.9%
40 to 49	75.6%	13.7%	2.9%
50 to 59	63.9%	20.3%	2.9%
60 to 69	22.4%	9.3%	0.3%

Table E.2: Summary of the proportion of the female population assumed to be paying Class 1 contributions for sample years

Age group	2012	2032	2052	2072
14 to 29	64.6%	64.8%	64.9%	65.0%
30 to 39	77.1%	78.1%	78.1%	78.1%
40 to 49	65.4%	73.8%	73.8%	73.8%
50 to 59	51.1%	65.9%	66.6%	66.6%
60 to 69	5.6%	14.4%	19.3%	19.2%

11.16 Future contribution income was projected by combining the future numbers of contributors, estimated in line with the methods described above, with distributions of earnings levels by age and sex, based on data for 2012. Allowance was made for the effect of the contribution limits. As was the case in the previous review, the earnings distribution for Class 2 contributors was derived from contribution data, but in this case allowing for the introduction of the new contribution band between the Standard Earnings Limit (SEL) and the Upper Earning Limit (UEL). The emerging contribution cashflow was aligned with 2012 contribution information provided by the Social Security Department.

Old age pension

11.17 The projected cost of old age pensions was obtained by applying 'average proportions' (see definition in 6.4) to the age and sex specific projected numbers in the population over pension age in future years and aligning the emerging initial cashflow with recent expenditure. These average proportions include allowance for both the number of residents and non-residents over pension age who will be entitled to, and who will claim, an old age pension, and also the average proportion of the standard rate of benefit that will be paid. Since non-residents are included, it is possible for the average proportions to be in excess of one, because they are expressed as a proportion of the resident population only. In the case of women, separate average proportions are applied in respect of females claiming a pension on the basis of their husband's contribution record, women claiming a pension on the basis of their own contribution record, and widows claiming a pension on the basis of their deceased husband's contribution record.

11.18 Over the three years from 2010 to 2012, the data showed that the average proportion applicable to men aged 65 to 69 was around 90%, an increase from the previous review's 85%. A lower percentage, of around 35%, continued to apply at ages 63 and 64, which reflects that only some individuals will choose to claim their pension early. However, based on an analysis of the data on the actual past contribution records of members together with an allowance for projected future contributions, an average proportion higher than 90% would theoretically be expected, assuming everyone claims their pension.

11.19 For the 2009 review, it had been assumed that the average proportions would gradually rise from existing levels up to 100% for those reaching age 65 in 2033 and later (this was subsequently adjusted to 97%, assuming that average pensions would reduce by 3% as a result of the increase in the contribution record required in order to receive the full level of state pension, following the increase in State Pension Age to 67 by 2031). Such an increase might, for example, reflect an increased probability that non-residents will claim their pensions. The average proportions at ages 63 and 64 were assumed to remain constant at the average level over 2007 to 2009. The assumptions therefore made allowance for an increase in the level of old age pension claims as a proportion of the population, although it remained less than the theoretical maximum level (above 97%) that would be the case where all eligible residents and non-residents claimed their pension and where they had a full contribution record.

11.20 For the 2012 review we have refined this approach, projecting existing and expected future contribution records under each population projection variant, allowing for early retirements and credit cases. As discussed with the Social Security Department, because there is a certain amount of volatility in the average proportions[16] emerging from the data for recent retirement cases, it is not immediately clear the extent to which the average proportions projected to occur for retirements taking place just after the review date align with the average proportions emerging from the data for retirements

just prior to the review date. There will be reasons for differences, such as not all potential retirement cases taking up pension, the fact that there is a minimum contribution record required in order to qualify for retirement, potential effects from reciprocal arrangements with other countries and deaths before retirement of overseas residents going unreported (there is no reason for such individuals' relatives to inform the Jersey Social Security Department of the death and no benefits or pension would be payable). However, on balance and when taken into consideration together, we understand from the Social Security Department that these matters are not expected to have a material impact on the average proportions modelled and consequently no additional alignment adjustments have been introduced. This approach results in long-term nil (net) migration, +325 migration and +700 migration average proportions of 90%, 87% and 84% respectively, in comparison with the 2009 review's 97%. The average proportions reduce with increasing migration because they are expressed as a proportion of the resident population and this increases in the case of higher migration numbers.

11.21 The allowance made for early retirements among males, based on analysis of recent data, is:

- 60% of male pensioners in any year retire at their State Pension Age (SPA), with 35% retiring two years before SPA and 5% one year before SPA (with this experience following SPA as it increases).

- The average level of pension expressed as a proportion of the potential full standard rate for those males early retiring, is 0.700 (in comparison with currently observed average levels of those retiring at SPA of around 0.550).

- The initial number of male pensioners (whether in payment locally or overseas) is 1.6 times the equivalent number of males in the local population of the same ages (there is an underlying assumption that the longevity of pension recipients living overseas is the same as that of local residents).

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11.22 Allowance has been made for a proportion of male recipients to qualify for a benefit increase in respect of dependants, principally at ages up to 70, based on data for 2012. However, these increases are only paid in respect of pre-April 2001 marriages so, as mentioned above, the proportion eligible to receive it reduces in the future.

11.23 Women currently have greater scope for qualifying for pension than men do: women can be entitled to an old age pension from their own, or from their husband's or deceased husband's, contribution records.

11.24 The average proportions [16] used to assess the costs of pensions for females who will in future qualify on the basis of their husband's or deceased husband's contributions were calculated by taking a percentage of the average proportion assumed for men. The percentage was derived using actual data for the latest available year. Refining the 2009 review slightly, we have assumed that the average proportions below age 63 run off to zero by around 2020 (2009:2017), reflecting the shift to State Pension Age 65 for all females. Furthermore, it is possible for females who were married before April 2001 to rely entirely on their husband's contribution record either for a dependency pension or for a widow's old age pension. The average proportions for this group are assumed to decline steadily. Women born before 1957 who are widowed before pension age

[16] These are factors described in paragraph 11.17 which reflect the proportion of the population that claim a pension and the rate of the pension as a percentage of the standard rate (see definition in 6.4).

may progress to a widow's old age pension on reaching pensionable age (or on their husband's later death) and the remainder, widowed but born after 1957, will revert to a pension based either on their own contributions, or their own contributions substituted with those from their deceased husband for the period of the marriage. It has been necessary to simplify the various provisions available and we have assumed that future new widow old age pension cases in respect of females who were married after April 2001 and aged under 55 at the review date cease, instead reverting to pensions based on their own contributions.

11.25 At the time of the 2009 review, the average proportion applied to females who qualify for pension based on their own contributions was calculated by making an assumption about the average proportions for females as a whole and then deducting the average proportions for females who qualify on the basis of their husband's or deceased husband's contributions. It was assumed that, in the long-term, the overall average proportion for all females would be 102% of the males' average proportion (see 11.20) at age 70 and over, that is, slightly above that for males, reflecting the fact that females have more methods of being entitled to pension. A lower adjustment factor to that of the males of 97% was applied at ages below 70 because females are less likely to be widows at those ages. These long-term rates were blended into the actual average proportions for 2009 over the period up to 2033, while the average proportions under age 63 again reduced to zero by 2017. Finally, an adjustment was applied to allow for the fact that females who were married in April 2001 or later would have to claim a pension on their own contribution record and this may tend to result in a less generous pension than if they were able to rely on their husband's contributions.

11.26 As mentioned above in connection with the males, for the 2012 review we have refined the approach for future retirements among females who qualify for pension based on their own contributions, projecting existing and expected future contribution records under each population projection variant, allowing for early retirements, credits and also for a proportion of these cases (based on the recent data) to have come into payment as widows on their husbands' contribution records until this alternative is assumed to cease as described in 11.24 above. This results in long-term nil (net) migration, +325 migration and +700 migration average proportions of 78%, 76% and 73% respectively. Again, the average proportions reduce with increasing migration because they are expressed as a proportion of the resident population which increases in the case of higher migration numbers. As was the case with the males (see 11.20) no additional alignment adjustments have been applied to the average proportions[17] projected to occur for retirements taking place just after the review date, in comparison with the average proportions emerging from the data for retirements just prior to the review date. It is recognised that there will be potential own contribution record cases inherent in the past and projected future contribution records, who, by the time that they reach retirement, will have qualified for a pension on the basis of their husband's or deceased husband's contributions. In discussion with the Social Security Department, we have modelled an allowance for own contribution cases to become qualifying widows (allowing for the transitional arrangements) and it has been assumed that any qualifying pre-April 2001 marriage case females qualifying for a pension based on their husband's contribution record would have elected to opt out of paying contributions on marriage and that any pre-marriage contributions are treated as not material for this purpose. Also, in discussion with the Social Security Department, we have assumed that the potential for females to have a partial substitution in respect of their husband's contribution records is not material. These last two effects would also mitigate one another, to an extent.

11.27 The allowance made for early retirements among females who qualify for pension based on their own contributions, based on analysis of recent data, is:

- 70% of females in 2012 retiring at 60, tailing off to 0% by around 2020; 5% of females in 2012 of the type "retiring two years before SPA" increasing to and then remaining at 40% from around 2020; 25% of females in 2012 retiring at SPA, increasing to and then remaining at 60% from around 2020, with this experience following SPA as it increases.
- The average level of pension expressed as a proportion of the potential full standard rate for those females early retiring, of 0.590 (in comparison with currently observed average levels of those retiring at SPA of around 0.450).

11.28 The initial number of female pensioners (whether in payment locally or overseas) is 0.75 times the equivalent number of females in the local population of the same ages, but as females who qualify for pension based on their own contributions become the only type of female pensioners in the long term, this increases to roughly the same level as for the males.

11.29 As mentioned in 11.23, women currently have greater scope for qualifying for pension than men do and the projected cashflow expenditure on females in the first half of the projection period term for females exceeds that of males by around 7% on average, reflecting this. However, towards the end of the projection period, once only females on their own contribution records exist as pensioners, projected female pension cashflows are around 7% less that of males on the above combination of assumptions. This is a feature of particular interest to the Social Security Department and a matter to be monitored closely in future reviews.

Survivor's benefit

11.30 Age specific future awards of survivor's benefit were projected by multiplying the projected number of deaths of married people from the population projection by the assumed number of awards per death of a married person (which was based on experience over the period 2010 to 2012). The proportion of the population who are married was assumed to vary in line with changes projected for England and Wales using ONS data. The number of beneficiaries in future years was obtained by projecting the current beneficiaries along with the estimated future awards, using rates of termination of benefit derived having regard to recent data.

11.31 The projected costs of survivor's benefit (including any remaining legacy benefits) were obtained by multiplying the projected number of beneficiaries by the full benefit rate, and by a factor reflecting the average proportion of the full benefit rate which is paid. This factor was based on the average proportion of benefit paid during 2010 to 2012. Allowance was made for survivor's allowance being paid at a higher rate than survivor's pension.

11.32 As, from 2022, survivor's pension will be available only to those with eligible children, we have modelled a 2/3rds reduction in new survivor's pension awards (regardless of age and sex) from 2022, based on the information from the Social Security Department, with a transition from 2013 to 2022.

Incapacity benefits

11.33 Expenditure on short-term incapacity allowance was projected by taking the projected number of contributors and multiplying by the age and sex specific numbers of days of benefit paid per contributor. This was then multiplied by the full benefit rate and by a factor reflecting the average proportion of the full benefit rate which is paid, including an allowance for dependants' increases.

11.34 The assumptions about the number of days of benefit paid, the proportion of the full rate that is paid and the allowance for dependants were derived by analysing experience over the three years 2010 to 2012.

11.35 Age specific future awards of long-term incapacity allowance were projected by applying an assumed award rate per contributor to the projected number of contributors. The number of recipients in future years was obtained by projecting the current beneficiaries with the estimated future awards, using assumed rates of termination of benefit. The projected benefit costs were obtained by multiplying the projected number of beneficiaries by the full benefit rate, and by a factor reflecting the average proportion of the full benefit rate which is paid, with an allowance for dependants' increases. Again, the assumptions on the award and termination rates, proportion of the full benefit payable and dependants were derived from experience in the period 2010 to 2012.

11.36 The cost of long-term incapacity allowance where the degree of disability is less than 20% (which is paid as a lump sum) was projected separately.

11.37 As was the case at the time of the previous review, it was noted that the number of awards of incapacity pension had been very low. We understand from the Social Security Department that future awards of incapacity pension are expected to continue to be very few in number. Consequently, a simplified approach has been adopted in modelling this benefit, on grounds of materiality, projecting 2012 expenditure in future years in line with the development of long-term incapacity allowance.

11.38 Invalidity benefit and disablement benefit have ceased to be awarded since October 2004, but previous awards continue in payment. The costs of these benefits were run-off allowing for a proportion of them to terminate each year, having regard to data over the period 2010 to 2012. The average rate of termination of these benefits is about 10% a year in the case of invalidity benefit and 3% a year for disablement benefit.

11.39 A summary of some of the key assumptions for incapacity benefits is shown in the following table (see also 11.15 for further information about the contributors themselves).

Table E.3: Summary of key assumptions for incapacity benefits – the equivalent assumption for contributors as a whole calculated by applying the age and sex specific assumptions to the contributor numbers in 2012

	Men	Women
Short-term incapacity benefit:		
Average number of days of benefit paid in year per contributor	11.2	11.5
Average proportion of full rate of benefit	0.97	0.97
Long-term incapacity allowance		
Average number of awards in year per 1,000 contributors	7.6	7.4
Average proportion of full rate of benefit	0.49	0.49

Maternity benefits

11.40 The cost of maternity allowance per birth, as a multiple of the benefit rate, has fluctuated in a fairly narrow range in recent years. The projected cost of maternity allowance was therefore calculated by multiplying the average cost per birth, as a multiple of the benefit rate, over the three years 2010 to 2012 by the full benefit rate and by the projected number of births from the population projection. A similar approach was used for maternity grants, assuming that the proportion of births qualifying for a grant was the same as the average over the three years to 2012. Adoption grant has been included with maternity grant, for the purposes of this report.

Death Grant

11.41 The future expenditure on death grants was calculated by multiplying the average cost per death, as a proportion of the full benefit rate, over the period 2010 to 2012 by the full benefit rate and by the projected number of deaths from the population projection.

Insolvency benefits

11.42 Insolvency benefits have been modelled using actual 2013 spend of £1.0 million, budgeted 2014 spend of £1.2 million and then by projecting expected 2015 expenditure of £350,000 advised by the Social Security Department in line with changes in the projection of working age population, allowing for the agreed policy to increase pension age.

Home carer's allowance

11.43 Home Carer's Allowance has been modelled by projecting expected 2013 expenditure of £1,990,391 advised by the Social Security Department in line with changes in the projection of working age population, allowing for the agreed policy to increase pension age. However, as we understand the majority of current recipients to be female, we have also made an adjustment in our modelling for the phasing-out of age 60 early retirement cases over the coming years.

Administration and general expenses

11.44 The cost of administration relates to both the collection of contribution income and the processing of benefit claims and is expressed as a proportion of benefit expenditure. This proportion has been subject to significant year on year variation but overall has decreased from the three year average of 4.4% used in the 2009 review. Current administration costs as a proportion of benefit spend are calculated at the lower end of the range encountered in recent years (3.2% in 2013). The Social Security Department have requested that we use an assumption for administration costs in future years of 3.7% of total benefit expenditure. This figure is consistent with the three year average of 2010 to 2012 and is made in recognition that the Health Insurance Fund (HIF) may be subject to change or contraction following a Review of Primary Care. Contraction of the HIF could place a larger burden of administration on the Social Security Fund compared to the current 3.2% rate for 2013.

Economic assumptions and fund projections

11.45 In making the projections in this report, it is assumed that all benefit rates, the earnings ceiling and the threshold for supplementation will be increased in future in line with earnings. The results, where shown in monetary terms, have therefore been shown in

constant 2012 earnings terms. This means that assumptions for inflation and real earnings increases are not required for the review.

11.46 Having said this, as stated in 7.6 above, a new method was introduced for increasing the rate of old age pension, which takes into account the increase in the RPI (pensioner) each year as well as the increase in earnings. However, as this new method targets pension increases to be in line with earnings in the long term, for the purposes of this long-term report old age pensions have been assumed to increase in line with earnings increases, as described in 11.45. Additionally, because the further 1.4% pension increase awarded in 2013 in order to supplement the already-awarded October 2012 pension increase is due to be clawed back shortly after the review date under the terms of the new pension increase method and this would not have a material impact on the long term modelling of the projected combined Funds, rather than model this clawback explicitly the 1.4% pension increase itself has instead not been included.

11.47 The total return on the combined Funds, net of associated expenses, is assumed to be 2% above earnings increases. In practice, the investment returns achieved by the Combined Funds, net of earnings inflation, have been volatile, with, for example, the return net of earnings increases over the three years from 2010 to 2012 ranging from around -1.5% to +10.5%.

11.48 Real yields on long-dated UK Government index-linked gilts, which may be considered as the lowest risk asset for the Fund, stood at just about 0% a year at the end of 2012. Assuming non-zero real earnings increases means that these assets would not generate any positive return relative to earnings rises.

11.49 In practice, most of the assets of the Funds are held in equities, which, although they carry more risk, should also, over the long-term, generate higher returns relative to "risk-free" investments (this is known as the "equity risk premium"). However, estimates of the size of the equity risk premium vary widely.

11.50 There is clearly a great deal of uncertainty over the likely level of future investment returns. To help indicate the uncertainty, Section 5 shows the impact of assuming that investment returns are 2% a year higher or lower than the assumption for the main results.

11.51 The investment return in 11.47 assumes that the Combined Funds are invested in line with their long term investment strategy. However, at the time of the 2012 review there were around 2 to 3 months' contributions receivable as a debtor item. Should it be the case that this feature persists in the long term (which we understand from the Social Security Department is likely to be the case, based on the situation over many years) then investment returns for the Combined Funds would be slightly lower than expected, reflecting the fact that debtor items would not be invested and would therefore themselves result in a negative return in relation to earnings increases.

Pension age

11.52 We have been asked by the Social Security Department to carry out the review on the basis that pension age increases from 65 to 67 over the period from 2020 to 2031. We understand that the policy bringing this increase in pension age into effect has been agreed and that legislation will be debated in the near future.

12 Appendix F: Summary of projections

Table F.1: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2012 earnings terms and assuming net nil future migration[17]

£ thousand	2012[18]	2017	2022	2032	2042	2052	2062	2072
Opening fund balance	**904,105**	**1,131,979**	**1,167,884**	**879,488**	**0**	**0**	**0**	**0**
Contribution income	219,127	220,155	217,043	206,727	197,137	187,411	179,007	171,007
Investment return	98,301	22,583	23,076	16,799	0	0	0	0
Total income	**317,428**	**242,738**	**240,119**	**223,526**	**197,137**	**187,411**	**179,007**	**171,007**
Benefit expenditure	191,456	217,759	236,578	275,989	297,416	283,454	271,279	262,925
Admin expenditure	6,009	8,057	8,753	10,212	11,004	10,488	10,037	9,728
Total expenditure	**197,465**	**225,816**	**245,331**	**286,201**	**308,420**	**293,942**	**281,316**	**272,653**
Excess of income over expenditure	119,963	16,922	-5,212	-62,675	-111,283	-106,530	-102,309	-101,646
Closing fund balance	**1,024,068**	**1,148,901**	**1,162,672**	**816,813**	**0**	**0**	**0**	**0**

Table F.2: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2012 earnings terms and assuming net future immigration of 325 people a year

£ thousand	2012	2017	2022	2032	2042	2052	2062	2072
Opening fund balance	**904,105**	**1,137,303**	**1,199,029**	**1,043,726**	**403,229**	**0**	**0**	**0**
Contribution income	219,127	223,865	226,215	226,348	227,703	229,808	231,575	233,552
Investment return	98,301	22,721	23,777	20,247	7,198	0	0	0
Total income	**317,428**	**246,586**	**249,992**	**246,595**	**234,901**	**229,808**	**231,575**	**233,552**
Benefit expenditure	191,456	218,336	237,871	279,096	303,563	295,567	293,414	297,895
Admin expenditure	6,009	8,078	8,801	10,327	11,232	10,936	10,856	11,022
Total expenditure	**197,465**	**226,415**	**246,672**	**289,423**	**314,794**	**306,502**	**304,271**	**308,917**
Excess of income over expenditure	119,963	20,171	3,320	-42,828	-79,894	-76,695	-72,696	-75,365
Closing fund balance	**1,024,068**	**1,157,474**	**1,202,349**	**1,000,897**	**323,335**	**0**	**0**	**0**

[17] Figures may not sum to totals shown due to rounding.
[18] The figures for 2012 are the actual figures taken from the accounts. In particular, this gives a much larger figure for investment income since it is not net of earnings increases.

Table F.3: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2012 earnings terms and assuming net future immigration of 700 people a year

£ thousand	2012	2017	2022	2032	2042	2052	2062	2072
Opening fund balance	**904,105**	**1,143,384**	**1,234,829**	**1,233,144**	**890,323**	**508,365**	**179,040**	**0**
Contribution income	219,127	228,146	236,799	249,003	263,010	278,765	292,268	305,756
Investment return	98,301	22,878	24,583	24,224	17,218	9,746	3,197	0
Total income	**317,428**	**251,024**	**261,382**	**273,227**	**280,228**	**288,511**	**295,465**	**305,756**
Benefit expenditure	191,456	219,018	239,376	282,676	310,688	309,611	319,051	338,454
Admin expenditure	6,009	8,104	8,857	10,459	11,495	11,456	11,805	12,523
Total expenditure	**197,465**	**227,121**	**248,232**	**293,135**	**322,183**	**321,066**	**330,855**	**350,977**
Excess of income over expenditure	119,963	23,902	13,150	-19,908	-41,956	-32,555	-35,391	-45,221
Closing fund balance	**1,024,068**	**1,167,286**	**1,247,978**	**1,213,236**	**848,367**	**475,810**	**143,650**	**0**

Table F.4: Summary of benefit expenditure in 2012 earnings terms and assuming net nil future migration[19]

£ thousand	2012[20]	2017	2022	2032	2042	2052	2062	2072
Old age pension	**146,054**	**171,093**	**189,628**	**230,027**	**254,801**	**243,377**	**233,190**	**226,600**
Survivor's benefit	**4,780**	**4,025**	**3,253**	**1,980**	**1,267**	**995**	**845**	**717**
Invalidity benefit	10,043	5,621	3,303	964	103	0	0	0
Short-term incapacity allowance	13,650	14,009	14,079	13,666	13,059	12,483	11,932	11,409
Long-term incapacity allowance	13,416	17,492	20,834	23,927	22,875	21,483	20,413	19,535
Incapacity pension	85	123	155	190	187	179	172	165
Total incapacity	**37,194**	**37,246**	**38,372**	**38,747**	**36,225**	**34,144**	**32,517**	**31,109**
Maternity allowance	2,365	2,045	1,955	1,874	1,830	1,719	1,624	1,558
Maternity/adoption grant	581	502	480	460	450	422	399	383
Total maternity	**2,946**	**2,548**	**2,435**	**2,334**	**2,279**	**2,142**	**2,023**	**1,940**
Death grant	**482**	**493**	**517**	**596**	**682**	**735**	**730**	**673**
Insolvency Benefit	**0**	**348**	**345**	**334**	**313**	**299**	**286**	**273**
Home carer's allowance	**0**	**2,007**	**2,028**	**1,971**	**1,848**	**1,763**	**1,689**	**1,612**
Total expenditure	**191,456**	**217,759**	**236,578**	**275,989**	**297,416**	**283,454**	**271,279**	**262,925**

[19] Figures may not sum to totals shown due to rounding.
[20] The figures for 2012 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.

Table F.5: Summary of benefit expenditure in 2012 earnings terms and assuming net future immigration of 325 people a year[21]

£ thousand	2012[22]	2017	2022	2032	2042	2052	2062	2072
Old age pension	**146,054**	**171,231**	**189,830**	**230,290**	**255,888**	**248,059**	**245,747**	**249,903**
Survivor's benefit	**4,780**	**4,033**	**3,281**	**2,052**	**1,388**	**1,164**	**1,043**	**933**
Invalidity benefit	10,043	5,621	3,303	964	103	0	0	0
Short-term incapacity	13,650	14,262	14,629	14,889	15,035	15,211	15,347	15,506
Long-term incapacity	13,416	17,550	21,084	24,937	25,043	24,956	25,039	25,290
Incapacity pension	85	124	157	198	205	208	211	214
Total incapacity	**37,194**	**37,558**	**39,173**	**40,988**	**40,387**	**40,375**	**40,597**	**41,009**
Maternity allowance	2,365	2,106	2,084	2,126	2,177	2,162	2,177	2,204
Maternity/adoption grant	581	517	512	522	535	531	535	541
Total maternity	**2,946**	**2,624**	**2,597**	**2,649**	**2,711**	**2,693**	**2,712**	**2,745**
Death grant	**482**	**495**	**520**	**603**	**697**	**761**	**772**	**739**
Insolvency Benefit	**0**	**351**	**355**	**360**	**357**	**361**	**365**	**368**
Home carer's allowance	**0**	**2,045**	**2,114**	**2,154**	**2,135**	**2,155**	**2,178**	**2,197**
Total expenditure	**191,456**	**218,336**	**237,871**	**279,096**	**303,563**	**295,567**	**293,414**	**297,895**

Table F.6: Summary of benefit expenditure in 2012 earnings terms and assuming net future immigration of 700 people a year

£ thousand	2012	2017	2022	2032	2042	2052	2062	2072
Old age pension	**146,054**	**171,392**	**190,065**	**230,602**	**257,173**	**253,503**	**260,330**	**276,996**
Survivor's benefit	**4,780**	**4,057**	**3,326**	**2,145**	**1,540**	**1,370**	**1,281**	**1,191**
Invalidity benefit	10,043	5,621	3,303	964	103	0	0	0
Short-term incapacity	13,650	14,555	15,263	16,301	17,317	18,362	19,290	20,236
Long-term incapacity	13,416	17,617	21,372	26,103	27,546	28,968	30,384	31,936
Incapacity pension	85	124	160	208	227	242	256	270
Total incapacity	**37,194**	**37,918**	**40,098**	**43,576**	**45,193**	**47,572**	**49,930**	**52,442**
Maternity allowance	2,365	2,177	2,234	2,397	2,566	2,680	2,804	2,940
Maternity/adoption grant	581	535	549	589	630	658	689	722
Total maternity	**2,946**	**2,712**	**2,783**	**2,986**	**3,196**	**3,339**	**3,492**	**3,662**
Death grant	**482**	**496**	**524**	**612**	**713**	**790**	**821**	**816**
Insolvency Benefit	**0**	**354**	**367**	**390**	**407**	**430**	**453**	**474**
Home carer's allowance	**0**	**2,089**	**2,213**	**2,364**	**2,466**	**2,607**	**2,743**	**2,873**
Total expenditure	**191,456**	**219,018**	**239,376**	**282,676**	**310,688**	**309,611**	**319,051**	**338,454**

[21] Figures may not sum to totals shown due to rounding.
[22] The figures for 2012 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.

Table F.7: The estimated future contribution income in 2012 earnings terms based on current contribution rates and assuming net nil future migration[23]

£ thousand	2012[24]	2017	2022	2032	2042	2052	2062	2072
Class 1								
Primary	68,262	68,217	67,209	64,096	61,264	58,428	55,688	53,054
Secondary to SEL	69,576	68,984	67,389	63,428	60,004	57,203	54,562	52,005
State supplement	62,846	62,979	62,323	60,232	57,445	54,644	52,275	49,872
SEL to UEL (secondary)	5,121	5,071	4,914	4,547	4,313	4,136	3,928	3,727
States Grant	57,507	58,033	57,670	56,253	54,219	51,002	48,977	47,081
Combined value of States grant and contributions	**200,466**	**200,305**	**197,181**	**188,323**	**179,800**	**170,769**	**163,155**	**155,867**
Class 2								
Primary to SEL	13,044	13,894	13,899	12,839	12,090	11,633	11,071	10,557
State supplement	5,631	5,949	5,946	5,503	5,187	4,978	4,741	4,524
SEL to UEL (primary)	1,974	2,117	2,130	1,968	1,850	1,783	1,697	1,619
States Grant	3,643	3,838	3,833	3,597	3,396	3,226	3,085	2,964
Combined value of States grant and contributions	**18,661**	**19,849**	**19,862**	**18,403**	**17,336**	**16,642**	**15,852**	**15,140**
All classes								
Primary to SEL	81,306	82,111	81,107	76,935	73,355	70,061	66,759	63,611
Secondary to SEL	69,576	68,984	67,389	63,428	60,004	57,203	54,562	52,005
State supplement	68,477	68,929	68,269	65,735	62,632	59,622	57,016	54,397
SEL to UEL (Total)	7,095	7,189	7,044	6,514	6,164	5,919	5,624	5,345
States Grant	61,150	61,871	61,502	59,849	57,615	54,228	52,062	50,045
Combined value of States grant and contributions	**219,127**	**220,155**	**217,043**	**206,727**	**197,137**	**187,411**	**179,007**	**171,007**

[23] Figures may not sum to totals shown due to rounding.
[24] The figures for 2012 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.

Table F.8: The estimated future contribution income in 2012 earnings terms based on current contribution rates and assuming net future immigration of 325 people a year[25]

£ thousand	2012[26]	2017	2022	2032	2042	2052	2062	2072
Class 1								
Primary	68,262	69,696	70,340	70,703	71,437	72,072	72,606	73,196
Secondary to SEL	69,576	70,411	70,401	69,761	69,771	70,362	70,937	71,524
State supplement	62,846	64,451	65,302	66,307	66,804	67,274	67,944	68,536
SEL to UEL (secondary)	5,121	5,159	5,113	5,004	5,030	5,094	5,117	5,147
States Grant	57,507	58,528	59,900	60,998	61,628	62,086	62,628	63,216
Combined value of States grant and contributions	**200,466**	**203,795**	**205,755**	**206,466**	**207,867**	**209,614**	**211,287**	**213,083**
Class 2								
Primary to SEL	13,044	14,079	14,330	13,900	13,886	14,135	14,201	14,326
State supplement	5,631	6,040	6,149	5,975	5,970	6,065	6,098	6,155
SEL to UEL (primary)	1,974	2,143	2,191	2,123	2,118	2,160	2,169	2,189
States Grant	3,643	3,849	3,939	3,859	3,832	3,899	3,918	3,955
Combined value of States grant and contributions	**18,661**	**20,070**	**20,460**	**19,881**	**19,836**	**20,194**	**20,287**	**20,469**
All classes								
Primary to SEL	81,306	83,775	84,671	84,603	85,323	86,207	86,806	87,522
Secondary to SEL	69,576	70,411	70,401	69,761	69,771	70,362	70,937	71,524
State supplement	68,477	70,491	71,451	72,283	72,774	73,339	74,042	74,690
SEL to UEL (Total)	7,095	7,302	7,304	7,127	7,148	7,253	7,286	7,335
States Grant	61,150	62,377	63,839	64,856	65,460	65,985	66,546	67,171
Combined value of States grant and contributions	**219,127**	**223,865**	**226,215**	**226,348**	**227,703**	**229,808**	**231,575**	**233,552**

[25] Figures may not sum to totals shown due to rounding.
[26] The figures for 2012 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.

Table F.9: The estimated future contribution income in 2012 earnings terms based on current contribution rates and assuming net future immigration of 700 people a year[27]

£ thousand	2012[28]	2017	2022	2032	2042	2052	2062	2072
Class 1								
Primary	68,262	71,403	73,954	78,333	83,189	87,828	92,139	96,447
Secondary to SEL	69,576	72,059	73,877	77,075	81,054	85,558	89,843	94,057
State supplement	62,846	66,149	68,739	73,323	77,612	81,852	86,030	90,075
SEL to UEL (secondary)	5,121	5,260	5,344	5,532	5,859	6,201	6,492	6,787
States Grant	57,507	59,098	62,472	66,475	70,184	74,879	78,382	81,839
Combined value of States grant and contributions	**200,466**	**207,820**	**215,647**	**227,415**	**240,286**	**254,467**	**266,855**	**279,131**
Class 2								
Primary to SEL	13,044	14,292	14,828	15,125	15,960	17,026	17,817	18,679
State supplement	5,631	6,144	6,384	6,521	6,875	7,320	7,666	8,037
SEL to UEL (primary)	1,974	2,172	2,260	2,302	2,427	2,595	2,714	2,847
States Grant	3,643	3,862	4,063	4,162	4,337	4,677	4,881	5,099
Combined value of States grant and contributions	**18,661**	**20,326**	**21,152**	**21,589**	**22,724**	**24,298**	**25,412**	**26,625**
All classes								
Primary to SEL	81,306	85,695	88,782	93,458	99,149	104,854	109,956	115,127
Secondary to SEL	69,576	72,059	73,877	77,075	81,054	85,558	89,843	94,057
State supplement	68,477	72,293	75,123	79,844	84,487	89,172	93,696	98,113
SEL to UEL (Total)	7,095	7,432	7,604	7,833	8,286	8,795	9,206	9,634
States Grant	61,150	62,960	66,536	70,637	74,521	79,557	83,263	86,938
Combined value of States grant and contributions	**219,127**	**228,146**	**236,799**	**249,003**	**263,010**	**278,765**	**292,268**	**305,756**

[27] Figures may not sum to totals shown due to rounding.
[28] The figures for 2012 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.