STATES OF JERSEY

GOVERNMENT ACTUARY'S REPORT ON THE FINANCIAL CONDITION OF THE SOCIAL SECURITY FUND AS AT 31ST DECEMBER 2015

Presented to the States on 17th January 2017
by the Minister for Social Security

STATES GREFFE

Government Actuary's Department

Report by the Government Actuary on the financial condition of the Social Security Fund as at 31 December 2015

Date: 12 December 2016

Author: Martin Clarke

SOCIAL SECURITY (JERSEY) LAW 1974

Report by the Government Actuary on the financial condition of the Social Security Fund as at 31 December 2015

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 2012 and, at the request of the Minister, I have carried out a review as at 31 December 2015. I now submit the following report on the financial condition of the Social Security Fund and on the adequacy of the present contribution rates.

Martin Clarke FIA

Government Actuary

12 December 2016

Contents

1 Executive summary and conclusions

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

1.2 As required by Article 32 of the Social Security (Jersey) Law 1974 ("the Law"), this is my report on the latest review of the SSF, which has been carried out as at 31 December 2015, and it includes projections over the period from 2015 to 2075. This review:

> considers the financial position of the SSF taking into account changes in legislation and experience since the previous review

> projects possible future levels of expenditure from the SSF and the contribution rates required to finance this expenditure

> projects the combined balance in the Social Security Fund and the Social Security (Reserve) Fund, which is available to meet social security benefit payments and help smooth the required social security contributions

1.3 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 balance built up in the two funds;

> the combined balances in the Social Security and Social Security (Reserve) Funds (together "the Fund"), as a multiple of annual expenditure, assuming that the current rates of contribution remain unchanged

1.4 A summary of the results of the review based on the "central assumptions" is shown in the following table and charts. Details of the data and assumptions underlying the results are included in the Appendices to this report.

Table 1.1: Estimates of the break-even contribution rates[1], expenditure from the Social Security Fund and the balance in the Fund based on the central assumptions and expressed in constant 2015 earnings terms

Year	Break-even rate (% of earnings)	Expenditure (£m)	Fund balance at year end (£m)	Average balance over year expressed as a multiple of annual expenditure
	Net immigration of 350 people a year			
2015	9.7%	217	1,377	6.2
2020	10.7%	244	1,502	6.1
2025	11.5%	265	1,582	6.0
2035	13.7%	316	1,386	4.5
2045	14.4%	336	725	2.3
2055	13.8%	325	-	-
2065	13.7%	327	-	-
2075	14.0%	336	-	-
	Net immigration of 700 people a year			
2015	9.7%	217	1,377	6.2
2020	10.4%	245	1,520	6.1
2025	11.0%	267	1,648	6.1
2035	12.6%	320	1,646	5.2
2045	12.8%	344	1,330	3.9
2055	12.0%	341	1,055	3.1
2065	12.0%	356	818	2.3
2075	12.3%	381	467	1.3
	Net immigration of 1,000 people a year			
2015	9.7%	217	1,377	6.2
2020	10.2%	245	1,536	6.2
2025	10.6%	268	1,704	6.3
2035	11.8%	323	1,868	5.8
2045	11.7%	351	1,845	5.3
2055	11.0%	355	1,988	5.6
2065	10.9%	381	2,273	5.9
2075	11.3%	420	2,529	6.0

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

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

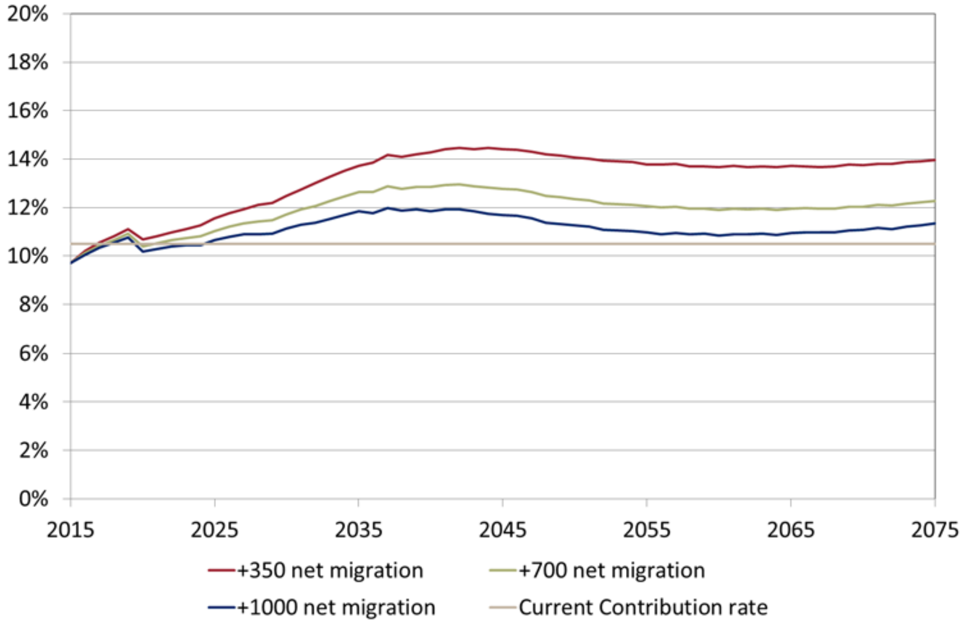
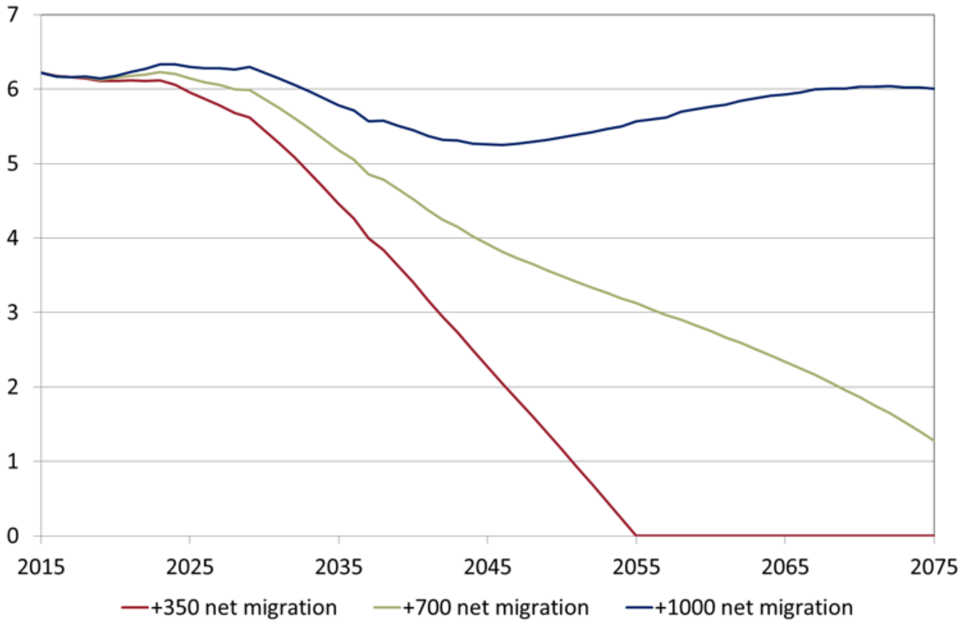


Figure 1.2: Projected Fund balance expressed as a multiple of annual expenditure based on the central assumptions assuming the current contribution rates are maintained



1.5 In summary, the results are:

Break-even contribution rate

1.6 For each migration scenario, the break-even contribution rate is projected to start off below the current rate of 10.5% but then to rise quickly above this, reaching a peak by the middle of the projection period. This peak ranges from 12.0% under the assumption of 1,000 a year net inward migration to 14.5% assuming 350 a year net inward migration.

1.7 Thereafter, the projected contribution rate declines and stabilises before rising slightly in the final years of the projection.

1.8 The main driver of the projected increase in the break-even contribution rates over time is the ageing of the population profile, resulting in a decrease in the number of contributors relative to those of pensionable age. The extent of this ageing of the profile is very dependent on the assumed level of migration: higher levels of net inward migration generally imply a younger population profile and this limits the increase in the break-even contribution rate.

1.9 Compared with the 2012 review, the break-even contribution rate is slightly lower in the first half of the projection period and little changed in the second half of the period. This reflects the net effect of various changes to the data and assumptions used at the 2015 review.

Fund balance

1.10 The progress of the combined Fund balance, assuming current rates of contribution are maintained, is highly dependent on the assumed level of migration, as shown in Figure 1.2.

1.11 On the assumption of 350 a year net immigration, the balance is projected to be extinguished in 2055 and at that point the contribution rate would need to rise to the break-even rate in order to meet expenditure. In practice, to the extent that part of the Fund balance is not readily convertible into cash (for example, some property investments) and to maintain a working cash balance, it would be necessary to increase the contribution rate or take alternative action before the balance is fully extinguished.

1.12 In contrast, under the assumption of higher net inward migration, the Fund balance is not projected to be extinguished during the projection period up to 2075.

1.13 The year in which the Fund balance will be extinguished is now projected to be later compared with the 2012 review. This reflects the fact that the break-even contribution rates in the first part of the projection period are lower than at the 2012 review and that investment returns achieved by the Fund over 2013 to 2015 were higher than assumed.

Variant assumptions

1.14 As the future cannot be predicted with any confidence, consideration should be given to how the results of the review would change if alternative, but still plausible assumptions were adopted.

1.15 Therefore, in addition to the three migration scenarios illustrated above, we have also made projections on other "variant assumptions" to show how this would affect the projected financial development of the Fund. For example, we have considered the effect of assuming future investment returns are 2% a year higher or lower than our central assumptions. These scenarios are discussed in Section 5 and indicate that, as well as being particularly sensitive to the migration assumption, the future projection of the Fund is also significantly influenced by the level of investment return achieved.

Conclusions

1.16 The financial outlook for the Fund remains healthy in the short to medium term and has slightly improved from that shown at the 2012 review. The speed at which the population profile ages will however have a significant impact on the development of the Fund.

1.17 Based on the central assumptions, it is expected that, except on the highest net inward migration assumption, the Fund balance will start declining and will in due course be extinguished. The rate of decline and the year in which the Fund is exhausted is very sensitive to the migration assumption used. Once the Fund is extinguished, the contribution rate would need to be raised to at least the break-even rates described above.

1.18 The central assumptions include an allowance for investment returns averaging 2% a year more than earnings growth. If it was instead assumed that investment returns are 2% a year higher or lower than under the central assumptions, this would, respectively, bring forward or defer the year in which the Fund balance is projected to be exhausted. In particular, with assumed investment returns 4% a year more than earnings growth, the Fund is not projected to be exhausted before the end of the projection period in 2075 under any of the migration scenarios.

1.19 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.

1.20 Given the long-term nature of the commitments built up in social security schemes, it is important to take early action to stabilise the future financial position of the Fund. However, given the Fund exhaustion dates are projected to lie well into the future, it is not essential to take immediate action about this in advance of the next actuarial review of the Fund (due no later than 31 December 2018). Progress should continue to be monitored at future actuarial reviews.

2 Introduction and scope of the review

2.1 The financial position of the Jersey Social Security Fund (SSF) 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"*

2.2 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."*

2.3 This is my report on the latest review of the SSF, which has been carried out as at 31 December 2015, and it includes projections over the period from 2015 to 2075. This review:

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

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

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

2.6 The previous review of the SSF was carried out as at 31 December 2012 and the results were presented in Trevor Llanwarne's report dated 28 March 2014.

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

Section 3	A discussion of how the Fund works
Section 4	The results of the projections of income, expenditure and the combined balance in the Fund 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

2.8 The appendices give additional background and more detailed results.

2.9 Under legislation, the next review of the SSF is due to be carried out as at 31 December 2018, or earlier as the Minister may direct.

2.10 This report should be read in conjunction with the important limitations set out in Appendix A.

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, £4,094 per month for 2016). Similar contributions are paid by those individuals paying Class 2 contributions unless they are exempt. Additional contributions are also payable through the practice of "supplementation", which is described in Appendix B.

3.3 The benefits provided and the contributions payable to the Fund, as taken into account in the review, are summarised in Appendix B. Apart from the benefit rates and contribution thresholds, the only differences from the benefits and contributions on which the 2012 review was based are:

- the States grant is fixed in cash terms for the years 2015 to 2019 (see paragraph B.26), and
- the terms on which maternity allowance is paid are now more flexible

3.4 A summary of the Fund accounts for the years 2013 to 2015 is set out in Appendix C. Appendix D provides a summary of the data used for the review.

3.5 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.

3.6 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 generally 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 SSF.

[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

3.7 Over the three years ended 31 December 2015, income to the SSF has exceeded expenditure by about £43 million. However, no transfers from the SSF to the Reserve Fund have taken place over this period. The average assets of the combined Fund over 2015 represented just over six times total expenditure from the SSF. The results shown in the following section of this report indicate that this multiple is projected to decline over time, or remain broadly stable, depending on the migration scenario considered.

4 Results based on central assumptions

4.1 Estimates have been made of the future income, benefit expenditure and administration expenditure of the Fund over the period from 2015 to 2075. The projections in this section are based on the "central assumptions" described in Appendix F. A key element of these assumptions is the population projections, which were specified by the States and include three migration scenarios (see Appendix E). We have chosen the remaining assumptions and these are intended to represent a best estimate of future experience, except where otherwise stated.

4.2 The assumptions include that:

> the size of the population will follow the projections prepared by the Jersey Statistics Unit assuming net immigration of 350, 700 or 1,000 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

4.3 Details of the projections in selected years are given in Appendix G and a summary of the key results is set out in this section. Where monetary amounts are shown these are in constant 2015 earnings terms.

4.4 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 Fund expressed as a multiple of annual expenditure, assuming the current rates of contribution remain unchanged.

4.5 For these results:

> contributions to the Health Insurance Fund have been excluded from the break-even rates

> the break-even contribution rate is the rate that would need to be paid in respect of income up to the Standard Earnings Limit (SEL); it is also the rate on which supplementation contributions[4] would be based.

[4] The supplementation contributions are the sum of the 2% contributions payable on income between the SEL and Upper Earnings Limit (UEL), and the States grant.

Table 4.1: Estimates of the break-even contribution rates[5], expenditure from the Social Security Fund and the Fund balance based on the central assumptions and expressed in constant 2015 earnings terms

Year	Break-even rate (% of earnings)	Expenditure (£m)	Fund balance at year end (£m)	Average balance over year expressed as a multiple of annual expenditure
	Net immigration of 350 people a year			
2015	9.7%	217	1,377	6.2
2020	10.7%	244	1,502	6.1
2025	11.5%	265	1,582	6.0
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	Net immigration of 700 people a year			
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	Net immigration of 1,000 people a year			
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2055	11.0%	355	1,988	5.6
2065	10.9%	381	2,273	5.9
2075	11.3%	420	2,529	6.0

[5] In comparison with the current total contribution rate of 10.5% applied to earnings up to the Standard Earnings Limit (SEL).

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

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

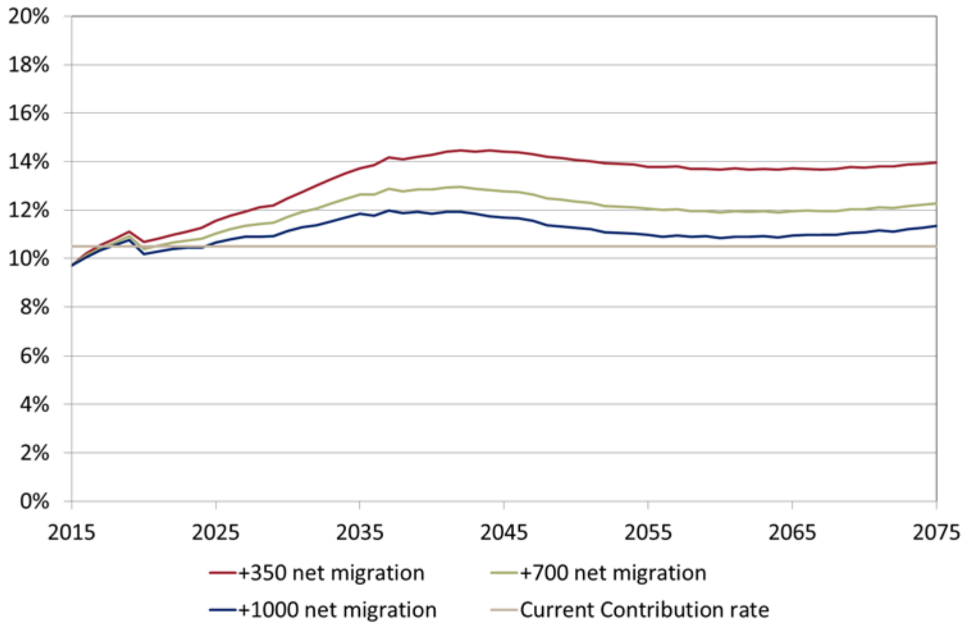
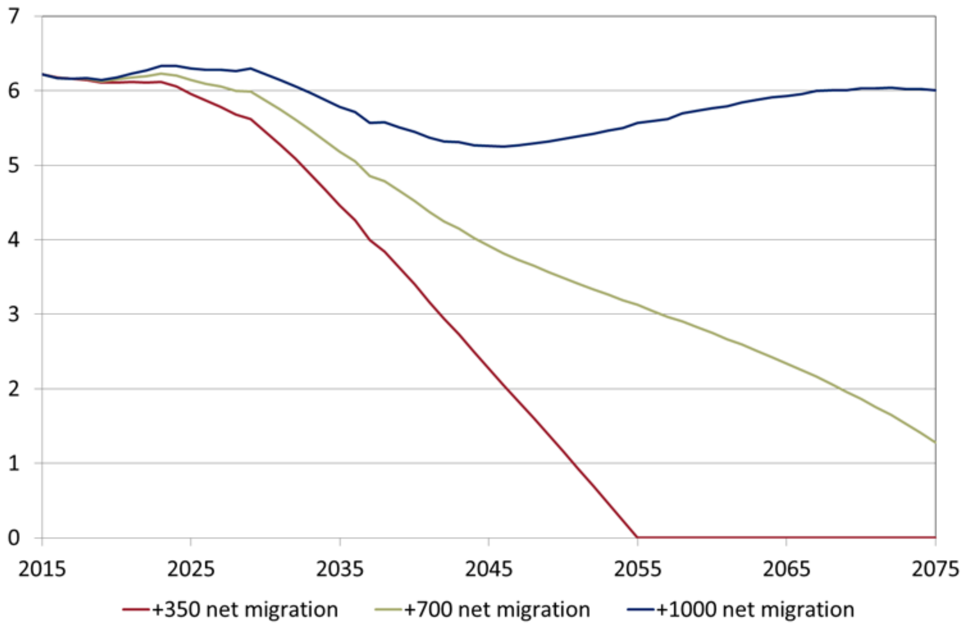


Figure 4.2: Projected Fund balance expressed as a multiple of annual expenditure based on the central assumptions



4.7 In summary, the results are:

Break-even contribution rate

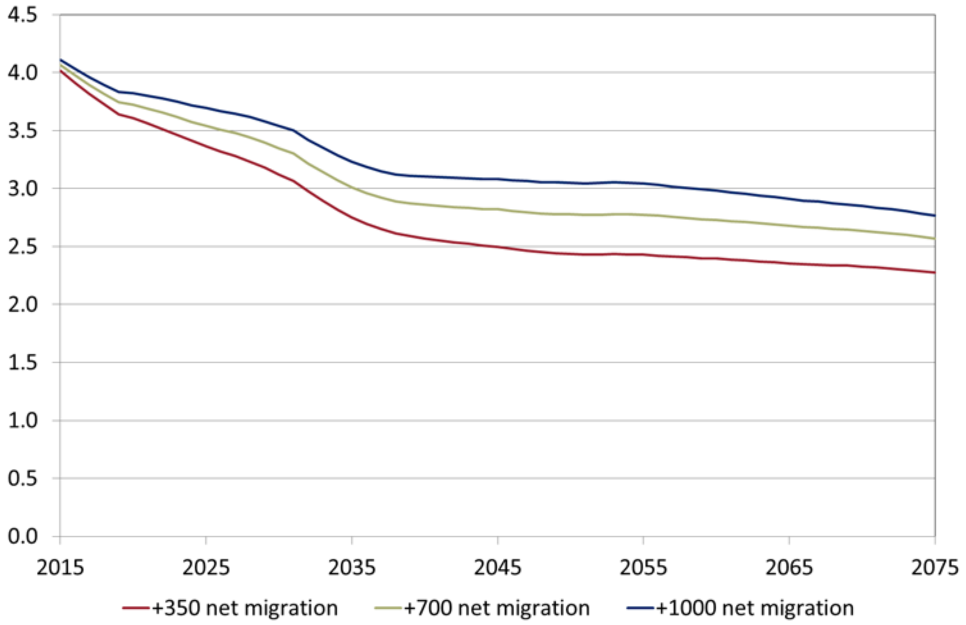
4.8 For each migration scenario, the break-even contribution rate is projected to start off below the current rate of 10.5% but then to rise quickly above this, reaching a peak by the middle of the projection period. This peak ranges from 12.0% under the assumption of 1,000 a year net inward migration to 14.5% assuming 350 a year net inward migration.

4.9 Thereafter, the projected contribution rate declines and stabilises before rising slightly in the final years of the projection.

4.10 It can be seen that the contribution rate rises rapidly in the years up to 2019, before falling back in 2020. In general, it is assumed that contributions will rise each year in line with earnings. However, this is not the case in the period 2015 to 2019 because, for those years, the States grant has been fixed in cash terms. As a result, contributions received in those years will be lower than they would have been had the States grant risen in line with earnings, and in order to compensate for this the break-even rate has to be higher. From 2020, it is assumed that the standard approach to setting the States grant is applied, under which it is indexed to earnings increases.

4.11 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 in 2015 to about 2.8 around halfway through the projection period on the net inward migration assumption of 700 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

4.12 The progress of the combined Fund balance, assuming current rates of contribution are maintained, is highly dependent on the assumed level of migration, as shown in Figure 4.2.

4.13 On the assumption of 350 a year net immigration, the balance is projected to be extinguished in 2055 and at that point the contribution rate would need to rise to the break-even rate in order to meet expenditure. In practice, to the extent that part of the Fund balance is not readily convertible into cash (for example, some property investments) and to maintain a working cash balance, it would be necessary to increase the contribution rate or take alternative action before the balance is fully extinguished.

4.14 In contrast, under the assumption of higher net inward migration, the Fund balance is not projected to be extinguished during the projection period up to 2075.

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 Fund, and the proportions of the population that contribute to the Fund

> benefit 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 a change to the benefit or contribution structure or external events that mean other chosen assumptions are incorrect.

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: net immigration of 350, 700 and 1,000 a year. For the 2012 review, we also considered three migration scenarios: net nil immigration, and net immigration of 325 and 700 a year.

5.6 It should be noted the three alternative migration 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, of working age individuals, would require contribution rates to be increased sooner.

5.7 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.

5.8 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 reduce the required break-even contribution rates after around 20 years[6], and delay the point at which contribution rates would need to be increased. Conversely, a decrease in the assumed fertility rates would increase the break-even contribution rates after about 20 years.

5.9 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.

5.10 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, but for the purposes of the results in Section 4 we have maintained the same fertility rates for each migration scenario.

Economic assumptions

5.11 It has not been necessary to make assumptions regarding the future levels of price inflation or long-term 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 (see paragraphs F.61 to F.63). Therefore the absolute levels of price inflation or earnings growth do not affect the results in this report.

5.12 For the purposes of projecting the balance in the Fund, 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 F commencing at paragraph F.64.

5.13 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 and the following three charts. These indicate how sensitive the projected development of the Fund is to the combination of population projection variant and investment return assumption. In particular, assuming investment returns of 4% per annum in excess of earnings increases leads to a sustained and ultimately improving Fund as a multiple of expenditure in the long term, for all of the migration scenarios.

[6] However, once those extra births had started drawing pensions, after the end of the projection period, the break-even rates would increase again.

5.14 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 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 Fund balance expressed as a multiple of annual expenditure

Year	Net immigration of 350 people a year			Net immigration of 700 people a year			Net immigration of 1,000 people a year		
	0%	2%	4%	0%	2%	4%	0%	2%	4%
2015	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
2020	5.6	6.1	6.7	5.6	6.1	6.7	5.7	6.2	6.7
2025	4.9	6.0	7.2	5.1	6.1	7.4	5.2	6.3	7.6
2035	2.6	4.5	7.2	3.2	5.2	8.0	3.8	5.8	8.7
2045	-	2.3	6.9	1.2	3.9	8.8	2.4	5.3	10.4
2055	-	-	7.3	-	3.1	11.3	1.7	5.6	14.4
2065	-	-	7.9	-	2.3	14.6	1.2	5.9	19.4
2075	-	-	8.5	-	1.3	18.6	0.6	6.0	25.5
Year Fund extinguished[7]	2045	2055	n/a	2053	n/a	n/a	n/a	n/a	n/a

[7] The Fund is projected to remain positive throughout the projection period for scenarios shown as n/a.

Figure 5.1: Projected balance in the Fund as a multiple of expenditure for different assumptions on investment return in excess of earnings and net immigration of 350 people a year

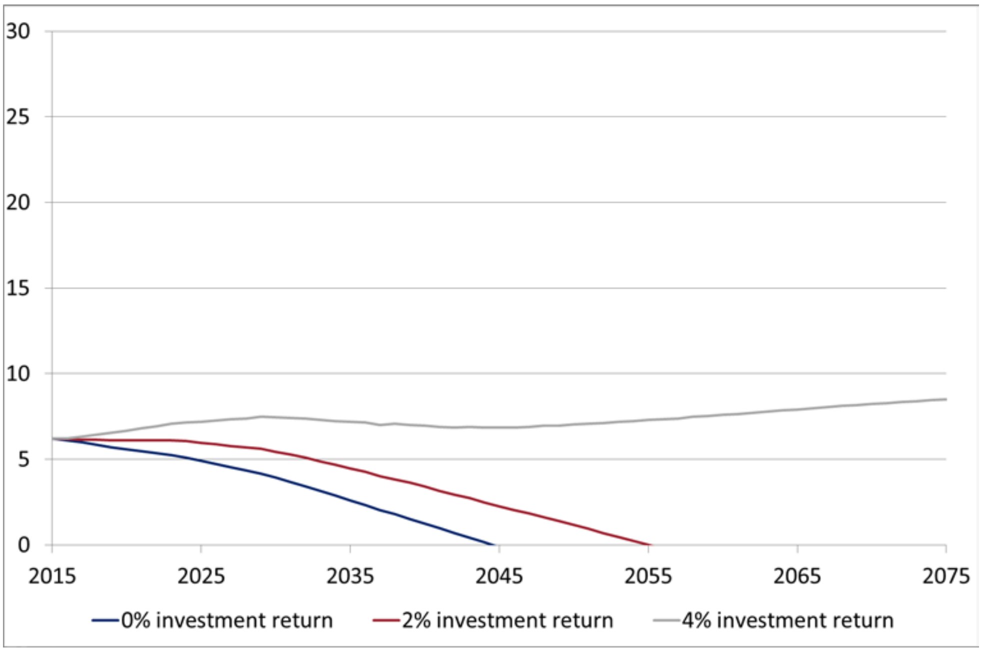


Figure 5.2: Projected balance in the Fund as a multiple of expenditure for different assumptions on investment return in excess of earnings and net immigration of 700 people a year

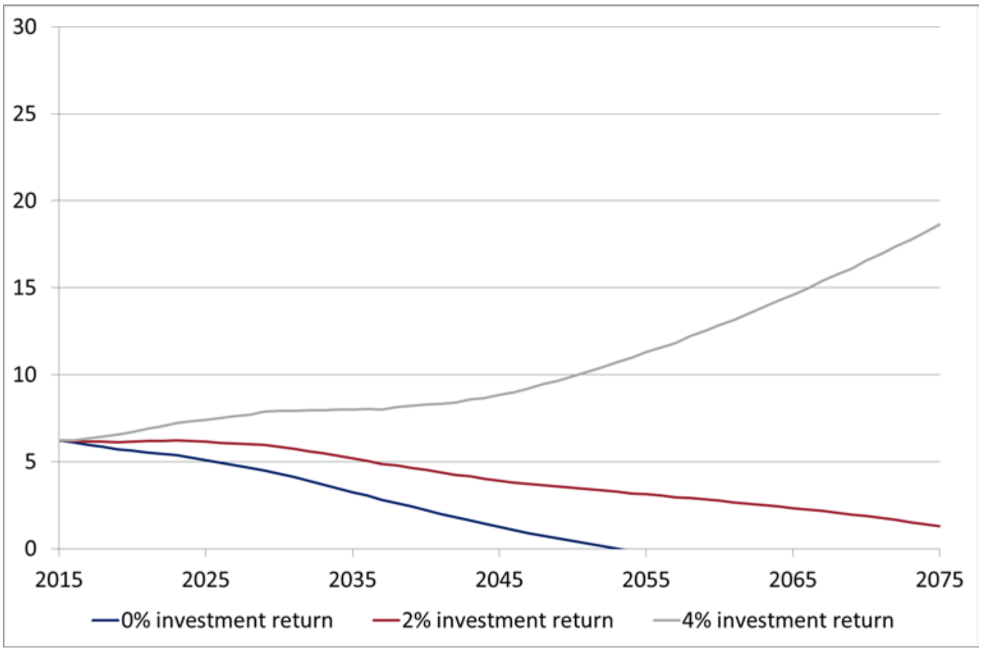
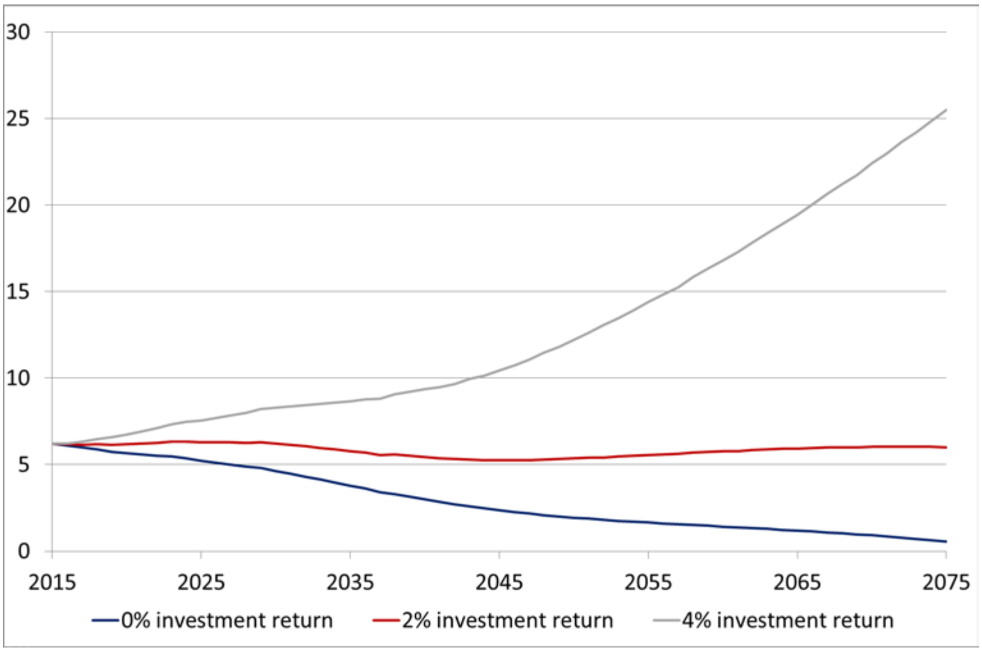


Figure 5.3: Projected balance in the Fund as a multiple of expenditure for different assumptions on investment return in excess of earnings and net immigration of 1,000 people a year



Benefit assumptions

5.15 There is some uncertainty over the future level of expenditure on old age pensions. For example, the current level of expenditure seems to be 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 could be 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. It is also possible that, in future, the rate of pension might be increased or reduced relative to its current value indexed in line with earnings.

5.16 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 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 2045 onwards, building up to this level uniformly from 2015. 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 2045 compared with the central results, with this difference phased in uniformly from 2015

	Net immigration of 350 people a year			**Net immigration of 700 people a year**			**Net immigration of 1,000 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 (%)									
2015	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%	9.7%
2020	10.7%	10.8%	10.5%	10.4%	10.5%	10.3%	10.2%	10.3%	10.1%
2025	11.5%	11.8%	11.2%	11.0%	11.3%	10.8%	10.6%	10.9%	10.4%
2035	13.7%	14.5%	13.0%	12.6%	13.3%	11.9%	11.8%	12.5%	11.2%
2045	14.4%	15.6%	13.2%	12.8%	13.8%	11.7%	11.7%	12.6%	10.8%
2055	13.8%	14.9%	12.6%	12.0%	13.0%	11.1%	11.0%	11.8%	10.1%
2065	13.7%	14.8%	12.6%	12.0%	12.9%	11.0%	10.9%	11.8%	10.1%
2075	14.0%	15.1%	12.8%	12.3%	13.3%	11.3%	11.3%	12.2%	10.4%
Year Fund extinguished [8]	2055	2048	n/a	n/a	2058	n/a	n/a	n/a	n/a

5.17 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.

5.18 For example, with net immigration of 350, 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 Fund would be extinguished could be estimated very approximately as 2038.

[8] The Fund is projected to remain positive throughout the projection period for scenarios shown as n/a.

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 results from the 2012 review with those from the 2015 review, in each case based on assumed future net immigration of +700 a year. The change in the break-even contribution rates at the two reviews is illustrated in the following table, which gives an approximate breakdown of the main reasons for the change.

Table 6.1: Comparison of results in this report with those from the report on the previous actuarial review – break-even contribution rates (%)[9]

Year of projection	2015	2025	2035	2045	2055	2065
2012 review (+700 net immigration)	10.2	11.4	12.8	12.7	11.9	11.9
Approximate effect of changes to:						
Population projection	-	-	-	-	-	-
Contributor projection	+0.1	+0.1	+0.2	+0.1	+0.2	+0.1
Old age pension projection	-0.3	-0.3	-0.1	+0.2	+0.2	+0.1
Expense assumption	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Other effects	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
2015 review (+700 net immigration)	**9.7**	**11.0**	**12.6**	**12.8**	**12.0**	**12.0**

6.2 We comment on each element of the change in the break-even contribution rate as follows:

> Population projection: the same population projection was used for both the 2012 and 2015 reviews and therefore this has not led to any change in the break-even rate

> Contributor projection: overall, at the 2015 review, we have slightly reduced the proportion of the population that is assumed to contribute to the Fund (see paragraphs F.13 to F.21) compared with the assumption at the 2012 review; this has the effect of increasing the required contribution rate, other things being equal; in this item, no allowance is made for the effect fewer contributors would have on benefit expenditure

[9] Figures may not sum due to rounding.

> Old age pension projection: this by far the most financially significant benefit paid by the Fund and the changes to its projection at the 2015 review (see Appendix F) have the effect of reducing the break-even rate in the first part of the projection period, and increasing the rate slightly in the later part of the period, other things being equal

> Expense assumption: this has been reduced (based on the analysis of past experience) from 3.7% of benefit expenditure at the 2012 review, to 3.0% of benefit expenditure at the 2015 review; this has the effect of reducing the projected break-even contribution rate by about 0.1% in each year

6.3 The remaining effects include the changes to the assumptions for valuing the more minor benefits, in particular the incapacity allowances.

6.4 At the 2012 review, the Fund, based on net immigration 700 a year, was projected to be exhausted in 2066. At the 2015 review, this has been put back to after the end of the projection period in 2075. There are two key reasons for this:

> the break-even contribution rates in the first part of the projection period are lower than at the 2012 review (as shown in the above table), and

> investment returns achieved on the Fund in the period between the two reviews (ie 2013 to 2015) were higher than assumed at the 2012 review.

Appendix A: Limitations

A.1 This report has been prepared for the Minister for Social Security and the Department for Social Security ("the Client"), although it is understood that the report will be made publicly available.

A.2 However, no person or third party is entitled to place any reliance on the contents of this report, except to any extent explicitly stated herein, and GAD has no liability to any person or third party for any act or omission taken, either in whole or part, on the basis of this report.

A.3 In preparing this report, GAD has relied on data and other information supplied by the Client, as described in the report. Any checks that GAD has made on this information are limited to those described in the report, including any checks on the overall reasonableness and consistency of the data. These checks do not represent a full independent audit of the data supplied. In particular, GAD has relied on the general completeness and accuracy of the information supplied without independent verification.

A.4 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.

A.5 GAD are not legal or investment advisers and our advice does not constitute legal or investment advice. Advice in these areas should be sought from appropriately qualified persons or sources.

A.6 This report has been prepared for use by persons technically competent in the areas covered. This report must be considered in its entirety, as individual sections, if considered in isolation, may be misleading, and conclusions reached by review of some sections on their own may be incorrect.

A.7 We understand that, in some circumstances, our report may be translated into other languages. In this case, GAD will not be held responsible for any action taken on the basis of the translated report rather than the English version. Any translation of the report must make it clear that only the original English language version is definitive.

Appendix B: Summary of contributions and benefits

B.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 2015, 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

B.2 The current rules on the receipt of old age pensions were introduced for those claiming a pension on or after 1 April 2001[10]. Slightly different rules applied for claims made before this date.

B.3 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.

B.4 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 B.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 B.23) 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 B.23) provided in respect of the pensioner.

B.5 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 B.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.

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

B.6 From 2013, a new method has been introduced for increasing the rate of old age pension. In broad terms, under this method, pensions will be increased in line with earnings. However, if in any year the increase in the RPI (pensioner) index exceeds the increase in the earnings index, then pensions will be increased in line with the RPI (pensioner) index, but then future increases will be "clawed back" in order to target earnings indexation over the long term. We understand that as at 31 December 2015 no claw back is due to be made in order to revert to earnings indexation.

Benefits for surviving widows and widowers

B.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 B.1) is generally paid when a man or woman is widowed and at least one of the spouses or civil partners 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/civil partner. The standard rate is adjusted according to the LACF, with the LACF calculated using the date of death instead of the pension age.

B.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.

B.9 For people widowed prior to April 2001, there are two benefits, widow's allowance and widow's pension. These benefits correspond to survivor's allowance and survivor's pension as described above, but are paid to widows only.

Benefits on incapacity

B.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.

B.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.

B.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 extent of the loss of faculty. 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.

B.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

B.14 A maternity grant is paid for each birth in Jersey where either the mother or her husband or civil partner 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. With effect from 1 January 2015, there is now more flexibility over when payment of maternity allowance can commence.

Bereavement benefits

B.15 A death grant is paid for all deaths in Jersey where the deceased, the surviving spouse or civil partner 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)

B.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

B.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

B.18 Table B.1 shows the weekly rates of benefit in force from 2012 to 2015. During this period, benefit rates have been increased annually in line with earnings increases.

Table B.1: Weekly benefit rates[11] from 1 October (£ per week)

Year from 1 October	OAP rate[12] - no dependant	OAP rate - with dependant	Standard rate – no dependant	Standard rate - with dependant	Married woman's old age pension	Survivor's allowance
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
2014	197.40	327.74	196.42	326.06	130.34	235.76
2015	199.99	332.01	199.99	332.01	132.02	240.03

B.19 It can be seen from this table that the OAP rate diverged from the standard pension rate in 2013 and 2014. This was because, as noted above, in 2013 a new uprating method was introduced to safeguard the real value of the old age pension. This new method ensures that pensions increase at least in line with inflation; at the same time, in the longer term increases will track the growth of average earnings. In May 2013 the new uprating method was applied retrospectively to the 2012 uprate. The standard rate of pension was increased from £187.25 to £189.84 with effect from 9th May and a lump sum payment was made in respect of previous months since October 2012.

Contributions

B.20 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 Class 1 contributions pay Class 2 contributions, unless they are exempt.

B.21 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.

B.22 Subject to certain rules, contribution credits are provided for students, the unemployed, the sick, survivors (i.e. people whose spouses or civil partners have died) or those staying at home to care for a child.

[11] 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. For long-term incapacity allowance, a proportion of the standard rate is payable depending on the degree of disablement.
[12] See commentary in paragraph B.19.

B.23 Table B.2 shows the earnings limits which applied between 2012 and 2016. Throughout this period the total rate of contributions payable on earnings up to the Standard Earnings Limit (SEL) has been 10.5%[13], of which 5.2% is paid by the employee and 5.3% by the employer in the case of Class 1. The Class 2 contribution is generally set at 10.5% of the SEL, but the individual can elect (where permitted) to pay lower earnings-related Class 2 contributions.

Table B.2: Earnings limits

Year	Monthly Lower Earnings Limit (LEL) (£)	Monthly Standard Earnings Limit (SEL) (£)	Monthly Upper Earnings Limit (UEL) (£)
2012	796	3,778	12,500
2013	808	3,834	12,686
2014	824	3,918	12,964
2015	848	4,020	13,302
2016	864	4,094	13,542

B.24 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. The cost of supplementation is met by a States grant and, with effect from 1 January 2012, an additional contribution of 2.0% of earnings between the SEL and the Upper Earnings Limit (UEL) payable by employers and those individuals paying Class 2 contributions.

B.25 Prior to 2012, the States grant represented each year's exact cost of supplementation. From 2012, it is set in advance by formula for each successive Medium Term Financial Plan (MTFP). Under this formula the States grant equals the cost of supplementation net of the additional 2% contributions between the SEL and UEL two years before the start of each MTFP, increased in line with earnings increases up to each year of the MTFP.

B.26 However, an exception to this approach has been adopted for the MTFP covering the years 2016 to 2019. For these years, the States grant has been fixed in cash terms at the 2015 level (£65.3 million) for all years. From 2020 onwards, the States grant will revert to the formula described in paragraph B.25.

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

Appendix C: Fund accounts since 1 January 2013

C.1 The transactions of the Social Security and Social Security (Reserve) Funds in the period 1 January 2013 to 31 December 2015 are summarised in Table C.1, whilst a breakdown of expenditure by benefit is shown in Table C.2. The figures are taken from the formal accounts for 2013, 2014 and 2015.

Table C.1: Summary of income and expenditure and balances of the Jersey Social Security and Social Security (Reserve) Funds in the period 1 January 2013 to 31 December 2015[14]; fund balances are shown at market values, as stated in the accounts

£ thousand	2013	2014	2015
		Social Security Fund	
Income			
Contribution income	156,415	162,125	169,659
States supplementation contributions	62,200	63,700	65,300
Investment return	165	189	265
Investment income transferred from Reserve Fund	-	-	-
Other income	471	150	130
Total income	**219,251**	**226,164**	**235,354**
Expenditure			
Benefit expenditure	201,678	205,457	211,741
Administration expenditure	6,523	6,537	6,293
Total expenditure	**208,201**	**211,994**	**218,034**
Balance at start of year	45,048[15]	56,098	70,268
Excess of income over expenditure	11,050	14,170	17,320
Revaluation of fixed assets	-	-	884
Transfer to Reserve Fund	-	-	-
Balance at end of year	56,098	70,268	88,472
		Social Security (Reserve) Fund	
Balance at start of year	962,073	1,157,694	1,253,169
Expenses	(328)	-	-
Transfer to Social Security Fund	-	-	-
Contribution from Social Security Fund	450[16]	-	-
Other adjustments	(103)	-	-
Investment return	195,602	95,476	35,168
Transfer from Social Security Fund	-	-	-
Balance at end of year	1,157,694	1,253,169	1,288,338

[14] Figures may not sum to totals due to rounding.
[15] The balances in the Social Security Fund are shown after accounting restatements recognised in the 2015 accounts.
[16] The "Contribution from Social Security Fund" and "Other adjustments" items for 2013 were not shown in the accounts but were provided by the Social Security Department.

	Combined Fund		
Combined balance at end of year	1,213,792	1,323,437	1,376,810
Mean of funds at start and end of year	1,110,457	1,268,615	1,350,124
Mean of funds as multiple of total expenditure	5.3	6.0	6.2
Estimated rate of investment return	19.3%	7.8%	2.7%

C.2 The calculations for this review were made using pre-audit accounts for 2015, which indicated a combined balance at the end of 2015 that was about £200,000 higher than the figure derived from the final 2015 accounts (£1,376,810,000, as shown in the table above). No adjustment has been made to reflect the balance in the final accounts as this will not have a material impact on the results of the review.

C.3 Contribution income (including that from the States) exceeded expenditure in each of the years from 2013 to 2015. Over the three years 2013 to 2015, the average annual rate of investment return is estimated to have been around 9.2% a year. The average combined Fund balance as a multiple of annual expenditure increased over the period, from 5.3 to 6.2.

Table C.2: Expenditure on social insurance benefits in the period 1 January 2013 to 31 December 2015

£ thousand	**2013**	**2014**	**2015**
Pensions	154,229	160,464	166,746
Short term incapacity allowance	12,938	12,413	12,315
Long term incapacity allowance	14,567	14,858	15,515
Invalidity benefit	9,016	8,087	7,289
Survivor's benefits	4,676	4,592	4,550
Maternity allowance	2,748	2,092	2,340
Maternity and adoption grant	N/A[17]	495	618
Home carer's allowance	1,968	1,938	1,872
Insolvency benefit	1,053	59	(26)
Death grant	483	459	522
Total benefit expenditure[18]	**201,678**	**205,457**	**211,741**

[17] Included with Maternity Allowance
[18] As shown in Table C.1.

C.4 A summary of the assets held of the Social Security Fund and the Social Security (Reserve) Fund as at 31 December 2015 is given in Table C.3.

Table C.3: Summary of the market value of the assets of the Social Security Fund and Social Security (Reserve) Fund as at 31 December 2015

	Social Security Fund		**Social Security (Reserve) Fund**	
	£million	%	£million	%
CIF investments				
Equity class assets	-	-	932.8	72
Fixed income class assets	-	-	146.5	11
Absolute return class assets	-	-	114.2	9
Property class assets	-	-	53.6	4
Cash class assets	-	-	41.3	3
Cash	24.9	28	-	-
Net debtors	56.2	64	-	-
Fixed assets	7.4	8	-	-
Total	**88.5**	**100**	**1288.3**	**100**

Appendix D: Summary of data

D.1 A summary of the membership data is set out below (less material benefit counts have been excluded).

Table D.1: Summary of the average number of contributors for the years 2013 to 2015

Contribution class	2013	2014	2015
Men – Class 1[19]	23,398	23,770	24,350
Men – Secondary only	475	486	511
Men – Class 2[20]	3,247	3,247	3,270
Women – Class 1	20,214	20,525	21,060
Women – Secondary only	2,923	2,814	2,666
Women – Class 2	678	732	744

[19] These numbers include those who, in the period concerned, are recorded as paying Class 1 and receiving contribution credits.

[20] 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 D.2: Summary of the number of beneficiaries for the years 2013 to 2015

	2013	2014	2015
Old age pensions[21]:			
Men	12,100	12,464	12,788
Women – pension based on husband's contributions	5,169	5,416	5,572
Women – pension based on own contributions	6,615	6,913	7,192
Widows – pension based on deceased husband's contributions	4,841	4,668	4,465
Incapacity benefits[22]:			
Short-term incapacity allowance – men	808	858	803
Short-term incapacity allowance – women	594	663	594
Long-term incapacity allowance (LTIA) – men	1,266	1,328	1,350
LTIA – women	985	1,085	1,140
Lump sum awards of LTIA – men	276	208	257
Lump sum awards of LTIA – women	170	161	166
Disablement benefit – men	506	493	475
Disablement benefit – women	136	133	130
Invalidity benefit – men	359	313	277
Invalidity benefit – women	422	387	351
Survivor benefits[23]:			
Survivor's allowance and pension – men	130	136	123
Survivor's allowance and pension – women	739	709	665

[21] These are numbers mid-way through the period
[22] 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)
[23] These are numbers in receipt of the benefit at the period end

Appendix E: Demographic background

E.1 The population projections adopted for this review are those prepared by the States' Statistics Unit in their 2013 update to their 2012 population projection model. This update was also used for the actuarial review as at 31 December 2012.

E.2 For the 2012 population projection model, the 2011 census provided a baseline of the number of known residents in Jersey at March 2011 by age and gender, rolled forward to year-end 2011 in line with actual births, deaths and migration, and projected the population forward, year by year, by adding births, subtracting deaths, and adjusting for inward and outward migration. The 2013 update rolls forward the census data to 2012 and then projects forward.

E.3 Since we prepared our calculations for this report, the States of Jersey Statistics Unit has published its 2016 release of the population projections. These new projections have not been taken into account in the results of this review. However, from an initial review of the new projections, we do not consider that they are likely to change the broad conclusions arising from the review.

E.4 The population projection model incorporates three main assumptions that are needed for the future:

- rates of mortality
- fertility rates
- migration

E.5 These assumptions were set by the States and they are discussed below. The scope of this report on the Social Security Fund did not include a review of the assumptions underlying the population projection. However, we have no reason to believe that the assumptions are inappropriate.

Rates of mortality

E.6 The assumed rate of mortality in Jersey, underlying these population projections, is based on the projected mortality rates for England in the 2010-based population projections for the United Kingdom, published by the Office for National Statistics. These mortality projections make a significant allowance for future improvements in life expectancy. The 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 E.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 15	100%	100%
16 to 59	100%	90%
60 to 74	95%	90%
75 and over	95%	95%

E.7 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.

E.8 The life expectancies at age 67 based on these assumptions are shown in Table E.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 E.2: Approximate life expectancy at age 67[24]

Year in which attain age 67	2015	2035	2055
Life expectancy at age 67			
Men	20 years	22 years	24 years
Women	22 years	25 years	27 years

Fertility rates

E.9 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.

E.10 As was the case at the time of the 2012 review, based on data on the numbers of births in Jersey, the population projections assume that the total fertility rate will be 1.57 in all future years. This is significantly lower than the rate in the UK; for example, the 2010-based central population projections for England and Wales assume that the total fertility rate in the long-term will average 1.85.

[24] 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.

Migration

E.11 Migration to and from Jersey is particularly difficult to predict and it is for this reason that the Social Security Department have asked for results prepared on three different migration assumptions. The three assumptions are:

- net inward migration of 350 people a year for all years from 2013
- net inward migration of 700 people a year for all years from 2013
- net inward migration of 1,000 people a year for all years from 2013

E.12 The assumptions about inward and outward migration cover three aspects:

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

E.13 The migration scenarios cover a wide range of possible future outcomes, although they should not be seen as setting bounds on future experience. This report shows that the choice of migration assumption has a significant effect on the projected financial position of the Fund. However, in considering the different migration variants, it is important also to have regard to any wider long-term implications, eg for the economy more generally and implied infrastructure needs.

Projected population numbers

E.14 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 increase in pension age, to 67 by 2031.

E.15 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).

E.16 The projected pattern of the PSR over the period up to 2075 is shown in Figure E.1. With allowance for net inward migration of 350 a year, the PSR is projected to fall from around 4.0 in 2015 to about 2.5 in 2045 and then to decrease more gently to around 2.3 by the end 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 increase by more than half by 2045. With allowance for net inward migration of 700 people and 1,000 people each year, the fall in the PSR is slightly less dramatic, falling to about 2.8 and 3.1 respectively in 2045 and then decreasing steadily to around 2.6 and 2.8 by the end of the projection period.

E.17 The population projections use 2012 as the base year and the population in future years is projected by applying the assumed levels of mortality, fertility and migration. This means that there is a slightly different population figure at the review date (31 December 2015) for each of the migration scenarios, and these will also differ from the actual estimated population in 2015.

E.18 It was not possible to adjust the population projections to allow for the actual 2015 population estimate as this would have required a full re-run of the Statistics Unit's population model with 2015 as the base year. Therefore, in making the projections for this review, we have generally used the population projections without adjustment. In particular, there is no explicit attempt to re-base the projections to reflect the estimated 2015 population, although a degree of re-basing does take place implicitly in the contribution projection, which is then propagated through the benefit projections for consistency.

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

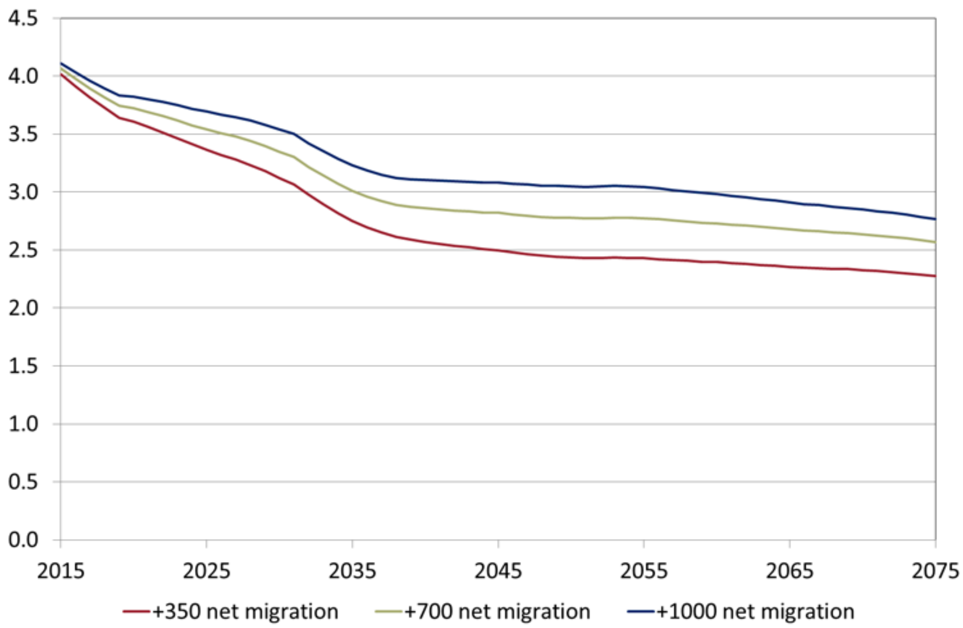


Table E.3: The projected population of Jersey at the year end from 2015 to 2075 assuming net future immigration of 350 people each year and the fertility and mortality assumptions described above

	2015	2020	2025	2035	2045	2055	2065	2075
Males								
0-9	5,311	5,294	5,187	5,257	5,395	5,433	5,453	5,532
10-19	5,563	5,558	5,738	5,662	5,734	5,868	5,909	5,933
20-29	6,099	6,292	6,229	6,373	6,297	6,365	6,493	6,539
30-39	7,165	7,042	7,139	7,225	7,355	7,291	7,361	7,493
40-49	7,784	7,315	7,316	7,394	7,494	7,631	7,583	7,663
50-59	7,473	7,934	7,403	7,019	7,172	7,289	7,439	7,410
60-69	5,420	5,831	6,733	6,709	6,421	6,630	6,774	6,948
70-79	3,238	3,882	4,454	5,651	5,687	5,533	5,804	5,992
80 and over	1,809	2,279	2,639	3,923	5,469	6,321	6,718	7,360
Total	**49,861**	**51,427**	**52,836**	**55,213**	**57,023**	**58,360**	**59,535**	**60,870**
Females								
0-9	5,333	5,256	5,150	5,221	5,359	5,396	5,417	5,496
10-19	5,323	5,523	5,750	5,615	5,687	5,820	5,862	5,885
20-29	5,934	6,035	6,073	6,442	6,312	6,378	6,506	6,551
30-39	7,015	6,848	6,815	6,918	7,258	7,140	7,207	7,336
40-49	7,805	7,157	7,031	6,947	7,062	7,393	7,290	7,361
50-59	7,582	8,003	7,475	6,802	6,792	6,918	7,247	7,159
60-69	5,637	6,198	6,999	6,929	6,348	6,388	6,531	6,864
70-79	3,650	4,266	4,921	6,188	6,165	5,710	5,809	5,980
80 and over	2,741	3,141	3,555	5,065	6,891	7,866	8,032	8,404
Total	**51,020**	**52,427**	**53,769**	**56,126**	**57,872**	**59,012**	**59,900**	**61,036**
Persons								
0-9	10,645	10,549	10,337	10,478	10,754	10,829	10,870	11,028
10-19	10,885	11,081	11,488	11,276	11,421	11,688	11,771	11,818
20-29	12,033	12,327	12,302	12,815	12,608	12,743	12,999	13,090
30-39	14,180	13,890	13,954	14,143	14,613	14,431	14,568	14,829
40-49	15,589	14,472	14,346	14,342	14,556	15,024	14,873	15,024
50-59	15,055	15,937	14,878	13,821	13,964	14,207	14,685	14,569
60-69	11,056	12,029	13,732	13,637	12,769	13,018	13,305	13,811
70-79	6,888	8,149	9,374	11,839	11,852	11,243	11,613	11,973
80 and over	4,550	5,419	6,194	8,988	12,360	14,187	14,750	15,764
Total	**100,881**	**103,854**	**106,605**	**111,338**	**114,896**	**117,372**	**119,435**	**121,906**
Persons								
0-15	16,939	17,188	17,182	17,119	17,513	17,751	17,806	18,012
16-pen age[25] (W)	67,212	67,860	68,943	69,101	69,547	70,559	71,333	72,176
Pen age + (P)	16,730	18,805	20,481	25,118	27,835	29,062	30,296	31,717
Total	**100,881**	**103,854**	**106,605**	**111,338**	**114,896**	**117,372**	**119,435**	**121,906**
PSR (=W/P)	4.0	3.6	3.4	2.8	2.5	2.4	2.4	2.3

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

Table E.4: The projected population of Jersey at the year end from 2015 to 2075 assuming net future immigration of 700 people each year and the fertility and mortality assumptions described above

	2015	2020	2025	2035	2045	2055	2065	2075
Males								
0-9	5,363	5,482	5,538	5,898	6,291	6,594	6,877	7,200
10-19	5,602	5,698	5,997	6,211	6,573	6,970	7,285	7,579
20-29	6,254	6,618	6,684	7,116	7,372	7,760	8,177	8,519
30-39	7,332	7,503	7,876	8,345	8,822	9,135	9,564	10,022
40-49	7,874	7,586	7,808	8,412	8,888	9,373	9,704	10,146
50-59	7,512	8,059	7,642	7,605	8,233	8,701	9,183	9,518
60-69	5,433	5,876	6,824	6,962	6,975	7,609	8,075	8,560
70-79	3,240	3,891	4,475	5,728	5,895	5,994	6,635	7,112
80 and over	1,810	2,282	2,645	3,943	5,532	6,500	7,147	8,210
Total	**50,421**	**52,996**	**55,489**	**60,220**	**64,580**	**68,636**	**72,647**	**76,865**
Females								
0-9	5,384	5,444	5,503	5,862	6,255	6,558	6,842	7,165
10-19	5,362	5,665	6,012	6,170	6,532	6,930	7,245	7,539
20-29	6,101	6,383	6,555	7,222	7,429	7,820	8,241	8,585
30-39	7,147	7,234	7,468	7,943	8,623	8,876	9,294	9,742
40-49	7,875	7,361	7,402	7,789	8,259	8,924	9,184	9,602
50-59	7,620	8,113	7,675	7,270	7,689	8,150	8,798	9,060
60-69	5,646	6,232	7,074	7,137	6,792	7,224	7,676	8,308
70-79	3,652	4,273	4,937	6,254	6,343	6,094	6,544	6,999
80 and over	2,744	3,147	3,566	5,089	6,959	8,044	8,436	9,228
Total	**51,531**	**53,852**	**56,191**	**60,735**	**64,883**	**68,620**	**72,260**	**76,229**
Persons								
0-9	10,747	10,926	11,041	11,760	12,546	13,152	13,719	14,365
10-19	10,964	11,363	12,009	12,381	13,106	13,900	14,530	15,117
20-29	12,355	13,001	13,239	14,338	14,801	15,580	16,418	17,104
30-39	14,479	14,736	15,344	16,289	17,446	18,010	18,858	19,764
40-49	15,749	14,948	15,210	16,200	17,146	18,297	18,888	19,748
50-59	15,133	16,172	15,317	14,875	15,922	16,851	17,980	18,579
60-69	11,080	12,108	13,898	14,099	13,767	14,833	15,751	16,868
70-79	6,893	8,165	9,412	11,982	12,237	12,088	13,179	14,111
80 and over	4,553	5,429	6,210	9,031	12,492	14,544	15,583	17,438
Total	**101,953**	**106,848**	**111,680**	**120,955**	**129,463**	**137,256**	**144,907**	**153,094**
Persons								
0-15	17,092	17,747	18,207	19,079	20,320	21,399	22,308	23,318
16-pen age[26] (W)	68,114	70,245	72,896	76,479	80,575	85,159	89,257	93,428
Pen age + (P)	16,746	18,856	20,576	25,397	28,568	30,698	33,342	36,349
Total	**101,953**	**106,848**	**111,680**	**120,955**	**129,463**	**137,256**	**144,907**	**153,094**
PSR (=W/P)	4.1	3.7	3.5	3.0	2.8	2.8	2.7	2.6

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

Table E.5: The projected population of Jersey at the year end from 2015 to 2075 assuming net future immigration of 1,000 people each year and the fertility and mortality assumptions described above

	2015	2020	2025	2035	2045	2055	2065	2075
Males								
0-9	5,406	5,643	5,840	6,447	7,058	7,589	8,097	8,629
10-19	5,636	5,818	6,218	6,681	7,291	7,913	8,463	8,987
20-29	6,387	6,897	7,074	7,753	8,293	8,954	9,620	10,214
30-39	7,475	7,898	8,509	9,306	10,081	10,716	11,452	12,190
40-49	7,952	7,819	8,229	9,284	10,083	10,868	11,523	12,274
50-59	7,546	8,167	7,848	8,107	9,142	9,913	10,679	11,326
60-69	5,445	5,915	6,903	7,180	7,450	8,449	9,192	9,943
70-79	3,242	3,899	4,493	5,795	6,073	6,389	7,348	8,073
80 and over	1,811	2,285	2,650	3,960	5,587	6,653	7,515	8,940
Total	**50,902**	**54,340**	**57,763**	**64,513**	**71,059**	**77,445**	**83,888**	**90,577**
Females								
0-9	5,428	5,606	5,804	6,411	7,023	7,554	8,062	8,594
10-19	5,396	5,786	6,237	6,644	7,255	7,879	8,429	8,954
20-29	6,244	6,681	6,968	7,892	8,387	9,055	9,727	10,328
30-39	7,260	7,564	8,027	8,823	9,795	10,363	11,083	11,805
40-49	7,935	7,537	7,721	8,511	9,286	10,237	10,808	11,523
50-59	7,652	8,207	7,846	7,671	8,459	9,207	10,128	10,691
60-69	5,655	6,261	7,138	7,315	7,173	7,941	8,658	9,548
70-79	3,654	4,279	4,951	6,310	6,495	6,423	7,175	7,873
80 and over	2,746	3,153	3,575	5,109	7,017	8,197	8,783	9,934
Total	**51,970**	**55,073**	**58,266**	**64,686**	**70,892**	**76,856**	**82,854**	**89,251**
Persons								
0-9	10,835	11,248	11,644	12,858	14,082	15,143	16,158	17,224
10-19	11,032	11,604	12,455	13,325	14,546	15,792	16,892	17,941
20-29	12,631	13,578	14,042	15,645	16,680	18,009	19,347	20,542
30-39	14,735	15,462	16,536	18,129	19,876	21,079	22,535	23,995
40-49	15,887	15,355	15,950	17,795	19,370	21,106	22,330	23,798
50-59	15,199	16,373	15,694	15,778	17,602	19,120	20,808	22,016
60-69	11,100	12,176	14,040	14,495	14,624	16,390	17,850	19,491
70-79	6,897	8,178	9,443	12,105	12,568	12,813	14,523	15,946
80 and over	4,557	5,437	6,225	9,069	12,605	14,850	16,298	18,874
Total	**102,871**	**109,414**	**116,029**	**129,199**	**141,951**	**154,301**	**166,741**	**179,828**
Persons								
0-15	17,223	18,226	19,086	20,756	22,723	24,522	26,161	27,862
16-pen age[27] (W)	68,888	72,289	76,285	82,806	90,031	97,677	104,625	111,644
Pen age + (P)	16,760	18,899	20,658	25,637	29,196	32,102	35,955	40,322
Total	**102,871**	**109,414**	**116,029**	**129,199**	**141,951**	**154,301**	**166,741**	**179,828**
PSR (=W/P)	4.1	3.8	3.7	3.2	3.1	3.0	2.9	2.8

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

Appendix F: Methodology and technical assumptions

F.1 The calculations for this review involve projecting contribution income, benefit expenditure and administration expenses over the 60 years from 2015 to 2075. 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, as a multiple of expenditure, assuming that the current rates of contribution remain unchanged

F.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. The break-even rates are the contribution rates that would need to be paid in respect of income up to the Standard Earnings Limit (SEL). They are also the rates on which supplementation contributions[28] would be based.

F.3 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.

F.4 In projecting the future balance in the Fund, 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 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.

F.5 Where results are given as monetary values, they are shown in constant 2015 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 paragraph F.61 below).

[28] The supplementation contributions are the sum of the 2% contributions payable on income between the SEL and Upper Earnings Limit (UEL), and the States grant.

Assumptions

F.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 E 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.

F.7 A summary of the assumptions adopted for this review, together with a brief explanation of how they were determined is given below. We have referred to these assumptions collectively as the "central assumptions" (as opposed to the variant assumptions considered in Section 5). We have set the central assumptions (apart from the population projections) in order to represent best estimates of the future experience of the Fund, and therefore they do not incorporate any margins for optimism or pessimism, except where stated otherwise. The population projections were specified by the States and include three migration scenarios, with 700 a year net inward migration being the central estimate.

F.8 The assumptions that have the most impact on the results of the review are those relating to population projections, contributor numbers and old age pension.

F.9 The results of the review are sensitive to the assumptions adopted. Although the central 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. In particular over a 60 year projection period it is entirely possible that the population could alter significantly relative to the projections. It is therefore important to consider how the results of the review would change if experience followed a different set of assumptions and this is illustrated in Section 5 of this report.

Population projections

F.10 The population projections adopted for this review are those prepared by the States' Statistics unit using their 2013 population projection model. Future expenditure has been calculated on the basis of three different population projections with differing migration assumptions:

- net inward migration of 350 people a year for all years from 2013
- net inward migration of 700 people a year for all years from 2013
- net inward migration of 1,000 people a year for all years from 2013

F.11 Appendix E contains further details on this, and on the method and assumptions used in the population projections.

F.12 The same assumptions for contributions and benefits are applied in each migration scenario except that, in the case of old age pension, allowance is made for migrants only spending part of their lives in Jersey. This means that we implicitly assume that migrants participate in the economy and draw benefits in broadly the same way as the existing population.

Contribution income

F.13 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. These proportions were derived from statistics on the number of contributors in past years. The analysis was made on the basis of the average position throughout the year, and thus allows for the average number of seasonal workers who contribute.

F.14 The assumed proportion of the population that contributes has been based on the average proportions (for each age and gender group) experienced in the six years 2010 to 2015[29]. Given the uncertainties inherent in how the labour market might develop, we have generally assumed that the assumed age and gender specific proportions will not vary in future years. However, specific allowance is made for the increase in pension age to 67 by 2031 by assuming that participation rates are unchanged for ages up to 64 and that for older ages up to the new pension age the participation rates are constant at the rate for age 64.

F.15 We have also made allowance for two transitional effects for women. These are:

> the increase in pension age from 60 for women who were first insured before 1 January 1975 to 65 for later members; this is in addition to allowing for the subsequent increase to age 67 mentioned in paragraph F.14

> the gradual run-off of the group of women who were married before 1 April 2001 and who have elected not to pay contributions; as these women leave the labour force, they are assumed to be replaced by women who pay the full rate of contributions

F.16 A summary of the proportions of the population that are assumed to contribute in 2016 is given in the following table (excluding those for whom employer contributions only are paid). For comparison, the corresponding proportions assumed for the 2012 review are shown in brackets.

[29] At the 2012 review, the proportions were based on the three year period 2010 to 2012 since this was the period over which we had consistent population numbers.

Table F.1: Summary of the proportion of the male and female populations assumed to be paying Class 1 or Class 2 contributions in 2016, with the equivalent figures from the 2012 review in brackets (based on the +700 net immigration population projections)[30]

Age group	Men Class 1	Men Class 2	Women Class 1	Women Class 2
15 to 29	65.9% (68.5%)	0.9% (0.9%)	63.0% (65.4%)	0.5% (0.5%)
30 to 39	88.1% (89.4%)	5.9% (6.1%)	77.3% (77.6%)	2.0% (1.9%)
40 to 49	75.3% (75.3%)	13.2% (13.7%)	69.4% (68.6%)	3.1% (2.9%)
50 to 59	64.3% (63.9%)	19.4% (20.3%)	54.0% (52.2%)	3.0% (2.9%)
60 to 69	20.1% (20.1%)	8.1% (8.4%)	8.2% (7.8%)	0.4% (0.3%)

F.17 In general, the proportions are little changed from those applied at the 2012 review. The most significant changes are a reduction in the proportion of population paying Class 1 contributions in the 15 to 29 age group, and an increase in the proportion of women contributing in the 50 to 59 age group. These changes are a consequence of the latest data received on contributor numbers.

F.18 These proportions will vary in future years. In particular, the proportions are likely to increase for the 60 to 69 age group as a result of the increases to pension age. Also, the proportions of women at age 40 and above who pay Class 1 contributions will increase. This reflects the run-off of the group of married women married before 1 April 2001 who have elected to pay no contributions and their replacement by women paying full Class 1 contributions[31].

F.19 The following two charts show the proportion of the working age population[32] that is assumed to pay Class 1 and Class 2 contributions, by gender, over the projection period, based on the +700 net immigration scenario. For comparison, the equivalent figures are shown for the 2012 review, based on +700 net immigration. The proportions will vary slightly under the different migration scenarios since it will change the age and gender profile of the population.

[30] Although the proportions for each age and gender are the same for each migration scenario, the figures in the table may differ slightly for the other migration assumptions as this will change the age profile within each age group.
[31] In contrast, women under age 40 in 2015 generally already pay full Class 1 contributions because they were married after April 2001.
[32] For this purpose the working age population is defined as being from age 15 to 64 in 2019 and before, and rising to 66 in 2031 and later.

Figure F.1: Proportion of the working age population assumed to pay Class 1 contributions, based on the +700 net immigration scenario, with the equivalent figures from the 2012 review based on the +700 net immigration scenario

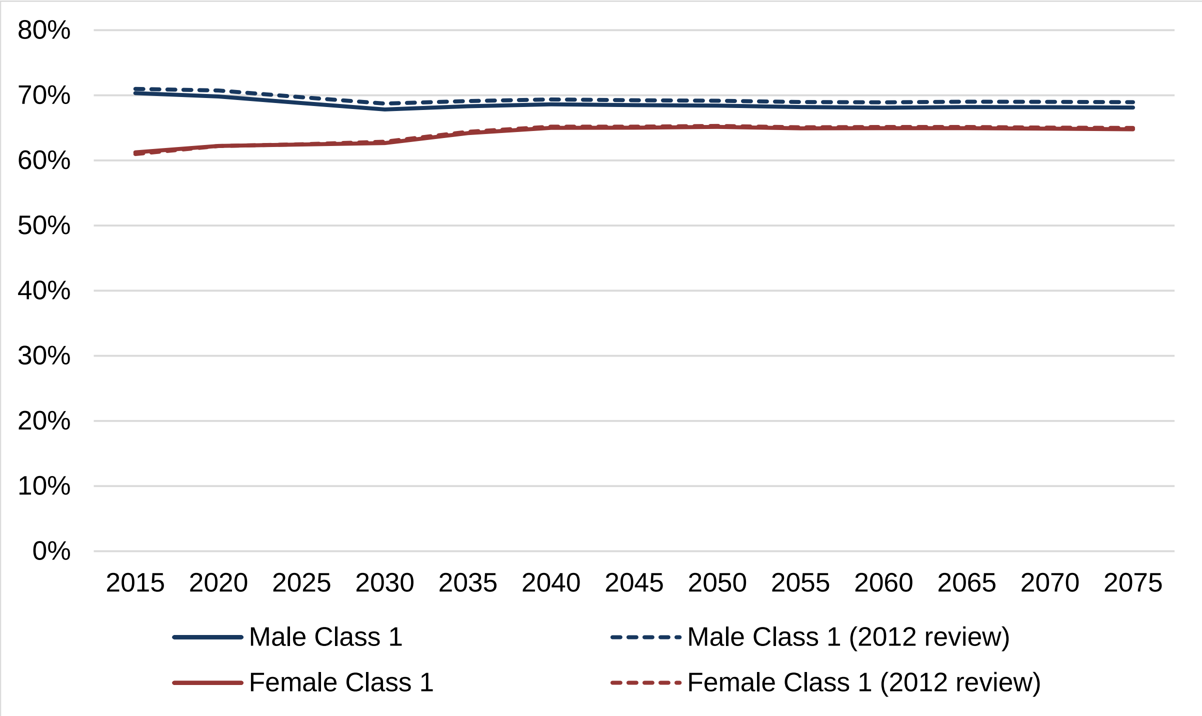


Figure F.2: Proportion of the working age population assumed to pay Class 2 contributions, based on the +700 net immigration scenario, with the equivalent figures from the 2012 review based on the +700 net immigration scenario

F.20 The proportion of the workforce projected to be contributing for the 2015 review is therefore very similar to that projected for the 2012 review.

F.21 Future contribution income was projected by combining the future numbers of contributors, estimated in line with the approach described above, with distributions of earnings levels by age and sex, based on data for 2015. Allowance was made for the effect of the contribution limits. The emerging contribution cash-flow was aligned with 2015 contribution information provided by the Social Security Department.

Old age pension

F.22 The projected cost of old age pensions was obtained by applying factors to the age and sex specific projected numbers in the population over pension age in future years and to the standard rate of pension. These factors represent the proportion of the resident population that qualifies for a pension multiplied by the average pension as a proportion of the standard pension rate[33].

F.23 The factors 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. Since non-residents are included, it is possible for the average factors to be in excess of one (100%), because they are expressed as a proportion of the resident population only.

F.24 In the case of women, separate factors are applied in respect of those claiming a pension on the basis of their (ex-)husband's contribution record, those claiming a pension on the basis of their own contribution record, and widows claiming a pension on the basis of their deceased (ex-)husband's contribution record.

F.25 In order to derive the required factors, we have generally adopted the same approach as used at the 2012 review, except that we made some refinements and simplifications where appropriate.

F.26 In broad terms the approach is to combine the data provided on the contribution records up to the end of 2015, with a projection of expected future contribution records based on projected contributor numbers. This has been done for each population projection variant. This has then been used to derive the expected pension that will be awarded at pension age as proportion of the standard rate of pension and the resident population at that age.

[33] For example, if the proportion of the population that qualifies for a pension is 90% and the average pension they receive is 80% of the standard rate, the factor would be 0.9 x 0.8 = 72%.

Men

F.27 Based on this approach, the long-term factors for men are as in the following table. Allowance is made for early retirements, assuming that 45% of pensions are drawn two years before pension age and a further 5% is drawn one year before pension age[34].

Table F.2: Long-term old age pension factors at pension age for men, 2015 review and 2012 review

	2015 review	2012 review
+325 net immigration[35]	-	87%
+350 net immigration	85%	-
+700 net immigration	83%	84%
+1,000 net immigration	81%	-

F.28 The average factors reduce with increasing net immigration because they are expressed as a proportion of the resident population and this increases in the case of higher net immigration numbers.

F.29 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 2015. However, these increases are only paid in respect of pre-April 2001 marriages and therefore an adjustment is made to allow this proportion to gradually reduce over time.

F.30 The data on pensions in payment in 2015 for male pensioners aged 65 in 2015 showed a factor of 85%[36], compared with a figure of around 95% for the early years of the projection based on the method outlined above. This might suggest that our method is tending to overstate the pension factor (and therefore to overstate the projected cost of old age pensions)[37]. However, it should be borne in mind that the two percentages are not necessarily directly comparable because the past data does show significant volatility from year to year (for example the factor was 93% in 2012 and 79% in 2013). This might reflect short term fluctuations in retirement patterns, which would not affect the long term rate.

[34] These percentages are higher than assumed for the 2012 review (35% and 5%) because for this review the assumption incorporates an allowance for the average rate of pension being higher on early retirement than on retirement at pension age.
[35] The 2012 review used a net immigration assumption of +325 a year, whereas the 2015 review used an assumption of +350 a year.
[36] This is not connected with the long-term factor of 85% shown in Table B.2.
[37] The same effect was noted at the 2012 review, although the difference is larger at the 2015 review.

F.31 However, the discrepancy may be due to other items that might affect the long term rate. One explanation of the discrepancy noted in paragraph F.30 is that our model assumes that all pension contributions will in due course generate a pension benefit (but allowing for deaths before pension age). In practice, this may not be true: for example, contributions may not be converted to pension if the individual has not met the minimum contribution requirement (having regard to any reciprocal social security arrangements) or if they did not claim their pension entitlement from Jersey. The data on past contribution records at the end of 2015 may also not exclude cases that have died before the review date, particularly for those who have left the island. We do not have sufficient data to analyse these possible effects.

F.32 At the 2012 review, the Social Security Department indicated that effects such as those in paragraph F.31 would not be expected to have a material impact on the average factors modelled, and the Department reconfirmed this for the current review. Therefore, as for the 2012 review, we have not applied any reduction to our modelled factors to reflect that not all contributions may be converted to pension. To the extent that pensions are not claimed in respect of all contributions, there will be an element of prudence in the projected expenditure. In order to illustrate the broad impact of adopting different old age pension factors, we have made projections assuming that expenditure on old age pension is 10% higher or lower than under the assumptions described above.

Women

F.33 The derivation of the required factors is more complicated for women. This is largely because 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.

F.34 The factors used to assess the cost of pensions for women who qualify on the basis of their husband's or deceased husband's contributions were calculated using the same approach as for the 2012 review. This involved taking a percentage of the factors assumed for men, with the percentage being derived using actual data for 2015, the latest available year. We have assumed that the average proportions below age 63 run off to zero by around 2017, reflecting the shift to State Pension Age 65 for all women.

F.35 However, the provisions allowing a woman to draw an old age pension based on their (ex-)husband's or deceased (ex-)husband's contributions are being phased out. It is important to take this into account in the projections, although due to the complexity of the arrangements it has been necessary to take a simplified approach. In particular:

- We allowed for the gradual run off of cases where a married woman receives a pension based on their (ex-)husband's contributions, since this only applies if they were married before April 2001
- In broad terms, we have assumed widows born after 1957 will receive an old age pension based on their own contributions, but an adjustment is applied in respect of pre-2001 marriages.

F.36 It is then necessary to make assumptions for pensions for women based on their own contribution record. This was done using the same approach as for men. However, it is recognised that this modelling will include some own contribution record cases who will in practice qualify for a pension on the basis of their husband's or deceased husband's contributions. Therefore, following the approach agreed with the Social Security Department for the 2012 review, it has been assumed that:

> a proportion (based on recent data) of pensions based on their own contributions will be paid as widows based on the husband's record until this alternative is assumed to cease

> any women 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

> the potential for women to have a partial substitution in respect of their husband's contribution records is not material

F.37 Consistent with the approach for men, it was assumed that 50% of individuals choose to draw their pension up to two years before pension age. However, in addition, an adjustment was applied in the first few years of the projection to allow for the remaining women who first contributed before 1975 and can therefore draw their pension at age 60.

F.38 Based on this approach, the long-term factors for women are as in the following table.

Table F.3: Long-term old age pension factors at pension age for women, 2015 review and 2012 review

	2015 review	2012 review
+325 net immigration	-	76%
+350 net immigration	78%	-
+700 net immigration	75%	73%
+1,000 net immigration	74%	-

F.39 As for men, the factors reduce with increasing net immigration because they are expressed as a proportion of the resident population which increases in the case of higher net immigration numbers.

F.40 As was the case with men (see paragraph F.32), no additional adjustments have been made in order to align the factors implied by the above method in the initial years of the projection with the factors shown by the data on recipients of the old age pension in recent years. However, the discrepancy between these factors generally appeared to be smaller than for men, although the pattern was more complex due to the various transitional effects for women.

F.41 Having obtained the projected expenditure for men and women, we have aligned the emerging initial cash-flow with recent expenditure.

Survivor's benefit

F.42 As this benefit now forms only a small, and declining, part of the Fund's expenditure, we have adopted a simplified approach for this review. Under this approach, the expenditure is assumed to equal the expenditure in 2015 (£4,550,000) varied in line with the projected numbers of deaths in the population at working ages.

F.43 In addition, an adjustment has been applied to expenditure on survivor's pension to allow for the new rules meaning that pension is only available to those with eligible children. As for the 2012 review, it has been assumed that this will lead to a two-thirds reduction in expenditure. This reduction is assumed to be phased in over the period up to 2032 (as a proxy for new pension awards being reduced by two-thirds from 2022).

Incapacity benefits

F.44 Expenditure on short-term incapacity allowance was projected by taking the projected number of contributors and multiplying by the age and sex specific assumed 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.

F.45 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 six years 2010 to 2015.

F.46 Age specific future awards of long-term incapacity allowance where disability was 20% or more 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 2015.

F.47 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 simply in line with expenditure on long-term incapacity allowance for higher levels of disability.

F.48 It has been noted at previous reviews that the number of awards of incapacity pension had been very low and the Social Security Department indicated that they expected this to continue. The data provided for the 2015 review confirms that the small numbers of incapacity pension awards have been maintained. Therefore, as for the 2012 review, we have adopted a simplified approach in modelling this benefit, on grounds of materiality: projecting the 2015 actual expenditure in line with the development of expenditure on long-term incapacity allowance.

F.49 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 2015. The average rate of termination of these benefits is initially about 10% a year in the case of invalidity benefit and 2% a year for disablement benefit.

F.50 A summary of some of the key assumptions for incapacity benefits is shown in the following table.

Table F.4: 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 2015, with the corresponding figures from the 2012 review in brackets

	Men	**Women**
Short-term incapacity benefit:		
Average number of days of benefit paid in year per contributor	10.6 (11.2)	11.4 (11.5)
Average proportion of full rate of benefit	0.97 (0.97)	0.97 (0.97)
Long-term incapacity allowance (pension cases only):		
Average number of awards in year per 1,000 contributors	7.2 (7.6)	7.5 (7.4)
Average proportion of full rate of benefit	0.48 (0.49)	0.48 (0.49)

Maternity benefits

F.51 The cost of maternity allowance per birth, as a multiple of the full weekly 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 six years 2010 to 2015 by the full benefit rate and by the projected number of births from the population projection. No specific allowance was made for the more flexible terms introduced from 1 January 2015 as this is not expected to have a material impact on the results of this review.

F.52 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 six years 2010 to 2015. Adoption grant has been included with maternity grant, for the purposes of this report.

Death Grant

F.53 The future expenditure on death grants was calculated by increasing the expenditure in 2015 (£522,000) in line with the projected number of deaths from the population projection.

Insolvency benefits

F.54 Insolvency benefits were only introduced on 1 December 2012, and total amounts paid have been very variable in each year: from close to zero up to about £1 million. For the 2012 review, we assumed that expenditure would average £350,000 a year (in 2012 earnings terms) from 2015 projected in line with changes in the size of the working age population.

F.55 There is clearly considerable uncertainty over how expenditure on this benefit will develop. We understand that the Social Security Department has budgeted for expenditure of £250,000 a year in the period 2016 to 2020. We have therefore assumed expenditure on this benefit will be £250,000 a year, in constant 2015 earnings terms, and varying in line with changes in the size of the working age population.

Home carer's allowance

F.56 Since its introduction in 2013, expenditure on Home Carer's Allowance has remained fairly stable at just under £2 million in each year 2013 to 2015. We have modelled future expenditure by projecting the 2015 expenditure (£1,872,000) in line with changes in the size of the working age population.

Administration expenses

F.57 The administration expenses relate to the collection of contribution income, the payment of benefit claims and general management costs. These expenses exclude costs generated within the Common Investment Fund (CIF) which are reflected in a deduction from the investment return achieved by the CIF.

F.58 For the purpose of our review, administrative expenses are expressed as a proportion of benefit expenditure. This proportion has shown considerable variability in recent years, although overall the proportion has fallen significantly, as shown in the following table:

Table F.5: Expenditure on expenses as a percentage of benefit expenditure

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Expenses as % of benefits	4.3%	3.9%	4.9%	4.5%	4.8%	4.1%	3.0%	3.4%	3.2%	2.6%

F.59 There is a wide range of factors that will influence how administrative expenses will develop as a percentage of benefit expenditure, for example:

- growth in benefit expenditure (in constant earnings terms) will allow fixed costs to be spread over a greater volume of benefit payments, meaning administrative expenses will fall relative benefits (other things being equal)
- one-off costs on implementing revised contribution or benefit rules
- the replacement of a computer system and how this cost is depreciated
- changes in how costs are shared with the Health Insurance Fund and the Long Term Care Fund.

F.60 Given the uncertainties, we have assumed that throughout the projection period the level of expenses will average 3.0% of benefit expenditure.

Economic assumptions and fund projections

F.61 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 2015 earnings terms. This means that assumptions for inflation and real earnings increases are not generally required for the review.

F.62 However, as noted in paragraph B.26, the States grant is fixed in cash terms in the period 2015 to 2019. In order to convert this into constant 2015 earning terms it is necessary to make allowance for earnings increases over this period. These assumptions have been taken from Fiscal Policy Panel annual report dated August 2016[38].

F.63 The mechanism for increasing old age pensions now has regard to the increase in the RPI (pensioner) index, although in the long-term pension increases still target earnings increases (see paragraph B.6). This mechanism means that, on average, the cost of old age pensions will slightly exceed the cost of the pension increased only in line with earnings. However, the impact of this is expected to be small over the long-term and therefore for the purposes of this review old age pensions have been assumed to increase in line with earnings increases.

F.64 In order to project the Fund balance we need to make an assumption about investment returns net of earnings increases. We have estimated the investment returns net of earnings increases achieved by the Fund as 16.7% in 2013, 5.1% in 2014 and 0.8% in 2015.

[38] See Figure 1.20 which showed earnings increases of 1.8%, 2.1% and 3.8% for 2015 to 2017 and 3.0% for subsequent years.

F.65 We understand that Aon Hewitt has carried out a review of investment strategy, which was summarised in their presentation "Strategy Review – Initial Results" dated August 2015. We understand that investment strategy B described in that review is currently adopted for the Social Security (Reserve) Fund but that it is expected that a move will be made to strategy C in the near future. The difference in the strategy between that in place at the time of the 2012 actuarial review and the Aon Hewitt strategies B and C is shown in the following table. The main change is a large increase in the portfolio allocated to alternatives, with a corresponding reduction in the equity holdings.

Table F.6: Investment strategies for the Social Security (Reserve) Fund

	Strategy from 2012 annual report for the Social Security (Reserve) Fund	Aon Hewitt Strategy B	Aon Hewitt Strategy C
Equities	80%	68%	58%
Bonds	10%	10%	10%
Alternatives	10%	20%	30%
Cash	-	2%	2%
	100%	100%	100%

F.66 At the 2012 review, we assumed future investment returns of 2% a year above earnings growth, which the Fund has outperformed in the interim. The future returns that will be earned are clearly very uncertain and there is a range of views as to what is achievable.

F.67 We note that, in their presentation, Aon Hewitt indicated an expected return over 30 years of 7.9% a year under strategy C. The 2016 annual report of the Fiscal Policy Panel indicates that over the long term earnings are expected to grow by 3.0% a year. This implies that Aon Hewitt's estimated return corresponds to about 4.75% a year in excess of earnings growth.

F.68 However, given the uncertainties and relatively weak global economic outlook, we have retained the assumption adopted at the 2012 review that future investment returns would average 2% a year above earnings growth (net of expenses levied within the CIF).

F.69 This investment return assumption is intended to be indicative of the long term return that might be expected from a generic strategy as set out in Table F.6. To help highlight the significance of the actual investment returns achieved, we have also shown the impact of assuming that investment returns are 2% a year higher or lower than the assumption for the main results.

Appendix G: Summary of projections

Table G.1: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2015 earnings terms and assuming net future immigration of 350 people a year [39]

£ thousand	2015[40]	2020	2025	2035	2045	2055	2065	2075
Opening fund balance	**1,323,437**	**1,476,483**	**1,574,294**	**1,432,152**	**801,359**	**36,579**	**-**	**-**
Contribution income	234,959	239,816	241,095	241,541	244,593	247,522	250,490	253,084
Investment return	35,805	29,490	31,247	27,903	15,119	-	-	-
Total income	**270,764**	**269,306**	**272,342**	**269,445**	**259,712**	**247,522**	**250,490**	**253,084**
Benefit expenditure	211,741	236,671	257,359	306,673	326,052	315,287	317,521	326,590
Admin expenditure	5,409	7,100	7,721	9,200	9,782	9,459	9,526	9,798
Total expenditure	**217,150**	**243,771**	**265,079**	**315,874**	**335,833**	**324,746**	**327,046**	**336,388**
Excess of income over expenditure	53,614	25,535	7,263	-46,429	-76,121	-77,224	-76,556	-83,304
Closing fund balance	**1,377,051**	**1,502,018**	**1,581,557**	**1,385,723**	**725,237**	**-**	**-**	**-**

[39] Figures may not sum to totals shown due to rounding.
[40] The figures for 2015 are the actual figures taken from the accounts. In particular, this gives a larger figure for investment income since it is not net of earnings increases. As noted in paragraph C.2, the 2015 figures were taken from the 2015 pre-audit accounts which indicated a slightly higher fund balance at the end of the year compared with the final accounts.

Table G.2: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2015 earnings terms and assuming net future immigration of 700 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Opening fund balance	**1,323,437**	**1,488,344**	**1,628,499**	**1,667,070**	**1,364,574**	**1,077,819**	**845,140**	**512,141**
Contribution income	234,959	246,975	253,802	265,960	282,620	297,292	312,773	326,315
Investment return	35,805	29,790	32,441	32,806	26,682	21,121	16,471	9,695
Total income	**270,764**	**276,765**	**286,243**	**298,766**	**309,302**	**318,413**	**329,244**	**336,010**
Benefit expenditure	211,741	237,542	259,035	310,482	333,897	331,120	345,749	370,232
Admin expenditure	5,409	7,126	7,771	9,314	10,017	9,934	10,372	11,107
Total expenditure	**217,150**	**244,668**	**266,806**	**319,797**	**343,914**	**341,054**	**356,121**	**381,339**
Excess of income over expenditure	53,614	32,097	19,437	-21,031	-34,613	-22,640	-26,877	-45,329
Closing fund balance	**1,377,051**	**1,520,441**	**1,647,936**	**1,646,039**	**1,329,962**	**1,055,178**	**818,263**	**466,812**

Table G.3: Summary of income and expenditure and the projected combined balance in the Social Security and Social Security (Reserve) Funds in 2015 earnings terms and assuming net future immigration of 1,000 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Opening fund balance	**1,323,437**	**1,498,446**	**1,674,634**	**1,867,022**	**1,843,934**	**1,963,837**	**2,243,486**	**2,510,309**
Contribution income	234,959	253,069	264,616	286,758	315,017	339,684	365,815	388,672
Investment return	35,805	30,045	33,456	36,978	36,522	39,124	44,719	49,896
Total income	**270,764**	**283,114**	**298,073**	**323,736**	**351,539**	**378,809**	**410,533**	**438,569**
Benefit expenditure	211,741	238,283	260,464	313,738	340,613	344,660	369,907	407,583
Admin expenditure	5,409	7,148	7,814	9,412	10,218	10,340	11,097	12,227
Total expenditure	**217,150**	**245,431**	**268,278**	**323,151**	**350,832**	**355,000**	**381,004**	**419,810**
Excess of income over expenditure	53,614	37,683	29,794	586	708	23,808	29,529	18,758
Closing fund balance	**1,377,051**	**1,536,128**	**1,704,429**	**1,867,608**	**1,844,641**	**1,987,646**	**2,273,015**	**2,529,067**

Table G.4: Summary of benefit expenditure in 2015 earnings terms and assuming net future immigration of 350 people a year [41]

£ thousand	2015[42]	2020	2025	2035	2045	2055	2065	2075
Old age pension	**166,629**	**188,750**	**208,087**	**258,170**	**277,809**	**266,925**	**269,005**	**277,638**
Survivor's benefit	**4,550**	**3,775**	**3,103**	**1,888**	**1,668**	**1,513**	**1,351**	**1,224**
Invalidity benefit[43]	10,644	7,228	5,121	2,150	778	275	55	5
Short-term incapacity allowance	12,315	14,204	14,516	14,617	14,860	15,111	15,278	15,453
Long-term incapacity allowance	12,160	17,121	20,833	23,953	24,855	25,305	25,617	26,012
Incapacity pension	117	165	200	230	239	243	246	250
Total incapacity	**35,236**	**38,717**	**40,671**	**40,951**	**40,733**	**40,935**	**41,197**	**41,720**
Maternity allowance	2,340	2,207	2,208	2,262	2,320	2,311	2,339	2,373
Maternity/adoption grant	618	560	560	574	588	586	593	602
Total maternity	**2,958**	**2,767**	**2,768**	**2,836**	**2,908**	**2,898**	**2,932**	**2,975**
Death grant	**522**	**520**	**553**	**647**	**738**	**790**	**784**	**754**
Insolvency Benefit	**-26**	**252**	**256**	**257**	**259**	**262**	**265**	**268**
Home carer's allowance	**1,872**	**1,890**	**1,920**	**1,925**	**1,937**	**1,965**	**1,987**	**2,010**
Total expenditure	**211,741**	**236,671**	**257,539**	**306,673**	**326,052**	**315,287**	**317,521**	**326,590**

[41] Figures may not sum to totals shown due to rounding.
[42] The figures for 2015 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.
[43] This includes both invalidity pension and disablement pension.

Table G.5: Summary of benefit expenditure in 2015 earnings terms and assuming net future immigration of 700 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Old age pension	**166,629**	**188,850**	**208,218**	**258,448**	**279,643**	**274,231**	**286,478**	**308,284**
Survivor's benefit	**4,550**	**3,824**	**3,186**	**2,013**	**1,867**	**1,772**	**1,642**	**1,537**
Invalidity benefit[44]	10,644	7,228	5,121	2,150	778	275	55	5
Short-term incapacity	12,315	14,605	15,239	16,070	17,112	18,133	19,010	19,899
Long-term incapacity	12,160	17,246	21,231	25,295	27,528	29,375	30,898	32,521
Incapacity pension	117	166	204	243	265	283	297	313
Total incapacity	**35,236**	**39,244**	**41,796**	**43,759**	**45,683**	**48,066**	**50,260**	**52,738**
Maternity allowance	2,340	2,323	2,398	2,571	2,742	2,852	2,991	3,131
Maternity/adoption grant	618	589	608	652	695	723	759	794
Total maternity	**2,958**	**2,913**	**3,006**	**3,223**	**3,437**	**3,576**	**3,750**	**3,925**
Death grant	**522**	**523**	**558**	**657**	**757**	**823**	**838**	**836**
Insolvency Benefit	**-26**	**258**	**268**	**281**	**296**	**313**	**328**	**343**
Home carer's allowance	**1,872**	**1,931**	**2,003**	**2,102**	**2,214**	**2,340**	**2,453**	**2,568**
Total expenditure	**211,741**	**237,542**	**259,035**	**310,482**	**333,897**	**331,120**	**345,749**	**370,232**

[44] This includes both invalidity pension and disablement pension.

Table G.6: Summary of benefit expenditure in 2015 earnings terms and assuming net future immigration of 1,000 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Old age pension	**166,629**	**188,935**	**208,332**	**258,695**	**281,235**	**280,504**	**301,471**	**334,563**
Survivor's benefit	**4,550**	**3,865**	**3,256**	**2,120**	**2,035**	**1,990**	**1,888**	**1,803**
Invalidity benefit[45]	10,644	7,228	5,121	2,150	778	275	55	5
Short-term incapacity	12,315	14,946	15,854	17,309	19,033	20,710	22,192	23,690
Long-term incapacity	12,160	17,353	21,571	26,439	29,808	32,848	35,403	38,071
Incapacity pension	117	167	208	254	287	316	341	366
Total incapacity	**35,236**	**39,694**	**42,754**	**46,154**	**49,906**	**54,149**	**57,990**	**62,133**
Maternity allowance	2,340	2,423	2,561	2,835	3,104	3,316	3,551	3,781
Maternity/adoption grant	618	615	649	719	787	841	901	959
Total maternity	**2,958**	**3,038**	**3,210**	**3,554**	**3,891**	**4,157**	**4,451**	**4,740**
Death grant	**522**	**525**	**562**	**666**	**773**	**851**	**884**	**906**
Insolvency Benefit	**-26**	**262**	**277**	**301**	**327**	**354**	**380**	**405**
Home carer's allowance	**1,872**	**1,964**	**2,073**	**2,250**	**2,447**	**2,654**	**2,843**	**3,034**
Total expenditure	**211,741**	**238,283**	**260,464**	**313,738**	**340,613**	**344,660**	**369,907**	**407,583**

[45] This includes both invalidity pension and disablement pension.

Table G.7: The estimated future contribution income in 2015 earnings terms based on current contribution rates and assuming net future immigration of 350 people a year [46]

£ thousand	2015[47]	2020	2025	2035	2045	2055	2065	2075
Class 1								
Primary	71,547	71,486	71,958	72,496	73,552	74,486	75,278	76,033
Secondary to SEL	77,322	76,710	76,582	76,158	76,775	77,722	78,620	79,449
State supplement	70,592	71,219	71,921	73,054	73,835	74,736	75,711	76,451
SEL to UEL (secondary)	5,643	5,498	5,445	5,384	5,453	5,536	5,579	5,631
States Grant	60,770	65,247	66,106	67,176	68,200	68,758	69,831	70,573
Combined value of States grant and contributions	**215,282**	**218,941**	**220,091**	**221,214**	**223,979**	**226,502**	**229,308**	**231,686**
Class 2								
Primary to SEL	13,393	14,081	14,153	13,690	13,894	14,181	14,283	14,423
State supplement	6,595	6,830	6,861	6,641	6,737	6,868	6,921	6,991
SEL to UEL (primary)	1,754	1,879	1,900	1,832	1,858	1,902	1,914	1,933
States Grant	4,530	4,915	4,951	4,806	4,861	4,937	4,985	5,043
Combined value of States grant and contributions	**19,677**	**20,875**	**21,004**	**20,327**	**20,614**	**21,019**	**21,182**	**21,398**
All classes								
Primary to SEL	84,940	85,567	86,111	86,186	87,446	88,667	89,562	90,456
Secondary to SEL	77,322	76,710	76,582	76,158	76,775	77,722	78,620	79,449
State supplement	77,187	78,048	78,781	79,695	80,572	81,603	82,632	83,442
SEL to UEL (Total)	7,396	7,376	7,345	7,216	7,311	7,438	7,493	7,564
States Grant	65,300	70,162	71,057	71,982	73,061	73,695	74,816	75,615
Combined value of States grant and contributions	**234,959**	**239,816**	**241,095**	**241,541**	**244,593**	**247,522**	**250,490**	**253,084**

[46] Figures may not sum to totals shown due to rounding.
[47] The figures for 2015 are the actual figures taken from the accounts, supplemented with additional ledger information provided by the Jersey Social Security Department.

Table G.8: The estimated future contribution income in 2015 earnings terms based on current contribution rates and assuming net future immigration of 700 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Class 1								
Primary	71,547	73,893	76,193	80,567	85,502	90,140	94,467	98,717
Secondary to SEL	77,322	79,182	80,926	84,432	89,062	93,895	98,493	102,969
State supplement	70,592	73,708	76,173	80,990	85,649	90,289	94,778	99,015
SEL to UEL (secondary)	5,643	5,652	5,734	5,973	6,334	6,690	6,998	7,313
States Grant	60,770	66,934	69,094	72,806	78,046	81,462	86,510	89,838
Combined value of States grant and contributions	**215,282**	**225,661**	**231,947**	**243,779**	**258,944**	**272,187**	**286,469**	**298,836**
Class 2								
Primary to SEL	13,393	14,399	14,761	15,012	16,002	17,006	17,772	18,590
State supplement	6,595	6,999	7,175	7,297	7,770	8,249	8,624	9,021
SEL to UEL (primary)	1,754	1,916	1,973	2,000	2,132	2,273	2,373	2,484
States Grant	4,530	5,000	5,122	5,169	5,542	5,826	6,159	6,404
Combined value of States grant and contributions	**19,677**	**21,314**	**21,855**	**22,181**	**23,676**	**25,105**	**26,304**	**27,478**
All classes								
Primary to SEL	84,940	88,292	90,953	95,580	101,504	107,146	112,239	117,306
Secondary to SEL	77,322	79,182	80,926	84,432	89,062	93,895	98,493	102,969
State supplement	77,187	80,707	83,348	88,288	93,419	98,538	103,402	108,035
SEL to UEL (Total)	7,396	7,568	7,707	7,973	8,467	8,963	9,372	9,797
States Grant	65,300	71,933	74,216	77,975	83,587	87,288	92,669	96,242
Combined value of States grant and contributions	**234,959**	**246,975**	**253,802**	**265,960**	**282,620**	**297,292**	**312,773**	**326,315**

Table G.9: The estimated future contribution income in 2015 earnings terms based on current contribution rates and assuming net future immigration of 1,000 people a year

£ thousand	2015	2020	2025	2035	2045	2055	2065	2075
Class 1								
Primary	71,547	75,942	79,797	87,442	95,683	103,473	110,808	118,031
Secondary to SEL	77,322	81,285	84,622	91,480	99,530	107,672	115,420	122,999
State supplement	70,592	75,825	79,790	87,746	95,703	103,524	111,003	118,211
SEL to UEL (secondary)	5,643	5,783	5,980	6,476	7,087	7,674	8,209	8,747
States Grant	60,770	68,369	71,635	77,597	86,425	92,270	100,699	106,226
Combined value of States grant and contributions	**215,282**	**231,380**	**242,034**	**262,995**	**288,725**	**311,089**	**335,136**	**356,003**
Class 2								
Primary to SEL	13,393	14,670	15,279	16,141	17,802	19,419	20,753	22,149
State supplement	6,595	7,144	7,443	7,857	8,652	9,428	10,078	10,753
SEL to UEL (primary)	1,754	1,947	2,035	2,143	2,367	2,590	2,766	2,955
States Grant	4,530	5,072	5,268	5,478	6,123	6,586	7,160	7,566
Combined value of States grant and contributions	**19,677**	**21,690**	**22,582**	**23,763**	**26,292**	**28,595**	**30,679**	**32,669**
All classes								
Primary to SEL	84,940	90,612	95,075	103,583	113,486	122,893	131,561	140,180
Secondary to SEL	77,322	81,285	84,622	91,480	99,530	107,672	115,420	122,999
State supplement	77,187	82,969	87,233	95,604	104,355	112,952	121,081	128,964
SEL to UEL (Total)	7,396	7,731	8,016	8,619	9,454	10,264	10,975	11,702
States Grant	65,300	73,441	76,903	83,075	92,548	98,856	107,859	113,792
Combined value of States grant and contributions	**234,959**	**253,069**	**264,616**	**286,758**	**315,017**	**339,684**	**365,815**	**388,672**