STATES OF JERSEY

REPORT BY THE GOVERNMENT ACTUARY ON THE FINANCIAL CONDITION OF THE SOCIAL SECURITY FUND AS AT 31ST DECEMBER 2003

Presented to the States on 12th July 2005
by the Employment and Social Security Committee

STATES GREFFE

SOCIAL SECURITY (JERSEY) LAW 1974

REPORT BY THE GOVERNMENT ACTUARY ON THE FINANCIAL CONDITION OF THE SOCIAL SECURITY FUND AS AT 31ST DECEMBER 2003

To the President and Members of the Social Security Committee of the States of Jersey –

Article 32 of the Social Security (Jersey) Law 1974 requires the actuary to review the operation of the Law at intervals not exceeding three years. My previous review was as at 31st December 2000 and, at the request of the Committee, I have carried out a review as at 31st December 2003. I now submit the following report on the financial condition of the Social Security Fund and on the adequacy of the present contribution rates.

C.D. Daykin
Government Actuary
8th April 2005

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EXECUTIVE SUMMARY

1. This report concerns the financial condition of the Jersey Social Security Fund as at 31st December 2003 and the expected adequacy in future years of the legislated contribution rates, assuming that the States contribution will continue on the same basis as at present. The main estimates in Section 3 of this report are based on the laws in force at 31st December 2003.

2. The Fund has historically been financed on the pay-as-you-go principle. With this method of financing, expenditure on benefits and administration should be met broadly by the income from contributions and the States supplement in the same year. The rates of contribution required to meet the expenditure are therefore determined by the relative levels of benefits and earnings and by the relative numbers of beneficiaries and contributors. As these latter numbers are very much affected by demographic changes, projections are made for a period of 60 years into the future to illustrate the impact of demographic changes.

3. An 8% contribution rate, 3.5% paid by the employee and 4.5% by the employer, was set in 1975 with the intention that it should provide a small margin over the strict pay-as-you-go rate and so could be maintained for the first 15 years as the scheme matured. In fact the true pay-as-you-go rate has exceeded 8% since 1990-91, but the fund that had been built up, and the income that the fund had generated, allowed the Fund to continue with the 8% contribution rate. The contribution rate was increased to 10.5% between 1998 and 2002, with 5.2% being paid by the employee and 5.3% by the employer.

4. Since the previous report as at 31st December 2000 the market value of the Social Security and Social Security (Reserve) Funds as a multiple of annual expenditure has fallen from 3.4 in 2000 to 2.7 in 2003. The aim is for the increase in contribution rates to 10.5% to enable the Social Security (Reserve) Fund to build up to a level of around 5 years' expenditure, in order to dampen the effect of the worsening demographic position over the next 30 to 40 years.

5. Old age pensions accounted for 67% of the Fund's expenditure in 2003 and the estimates in this report indicate that this is expected to increase steadily in future to around 80% by the 2030s. The projections in this report indicate that the number in the population over the current pension age of 65 will rise from approximately 12,500 in 2003 to approximately 26,500 in 2037, a total rise of over 100%. After 2037 the numbers will start to fall, reaching approximately 20,500 by 2063 assuming zero future net migration and approximately 23,500 assuming future net immigration of 200 a year. The number of people in receipt of a pension will increase by more than this because of the increase in the number of overseas pensioners.

6. 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 categories to the projected numbers in the working age population. These proportions were derived from statistics of the numbers contributing over the last economic cycle, allowing for both the average positions over an economic cycle and the trends with time.

7. The contribution rate which is required to break even on a pay-as-you-go basis is heavily dependent on the relative future numbers in the population at working ages and over pension age. In 2003 there were approximately 4.7 persons of working age for each person aged 65 and over but this ratio is projected to fall. If there is zero net migration in the future, this ratio is projected to fall to 1.7 in 2038 before rising to 1.9 by 2063. Assuming net future immigration of 200 a year, this ratio is expected to fall to 2.0 in 2037 before rising to 2.3 by 2063. The change in the required contribution rate will not be solely dependent on this ratio, as not all people of working ages contribute and retirement pensions are paid to people overseas, if they have a sufficient contribution record, as well as to residents. In addition, benefits other than retirement pension are paid, mainly to people of working age.

8. A summary of the joint employee and employer contribution rates which would be required to break even on a pay-as-you-go basis (allowing for the States contribution to continue as described in Appendix A, paragraph A.15) is given in Table 1. These rates exclude the contribution to the Health Insurance Fund and also exclude income from investments.

TABLE 1: Estimated joint rates of contribution as a percentage of earnings (1), to break even on a pay-as-you-go basis

Year	Zero net migration	200 a year net immigration
2003	8.7	8.7
2008	9.3	9.1
2013	10.3	9.9
2023	13.3	12.3
2033	17.8	15.7
2043	18.3	15.2
2053	17.3	14.4
2063	17.5	14.7

(1) Payable on earnings up to the upper limit

9. It is likely that the contribution rate of 10.5% paid since 2002 can be maintained for many years without any diminution of the Fund as a contingency reserve. With zero future net migration, the combined balance in the Social Security and Social Security (Reserve) Funds would reach a maximum of 4.3 times annual expenditure in the year 2013 before starting to decline, assuming that the current contribution rate is paid in the future. The Funds would be extinguished in the year 2033. With future net immigration of 200 a year, the combined balance in the Funds is projected to reach a maximum of 4.5 times annual expenditure in the year 2016 before being extinguished in the year 2037. This assumes that the rate of return on the investments of the Funds, net of associated expenses, will be 2% per annum above earnings increases.

10. If the rate of return is 1% per annum lower the Funds would be extinguished 2 years earlier with both ni net migration and 200 a year net immigration. If the rate of return is 1% per annum higher the Funds would be extinguished 3 years later with net nil migration and 5 years later with net immigration of 200 a year. At the review date, 83% of the assets of the social security funds were equities. In the long-term, equities may be expected to produce a higher return than lower risk assets, but returns on equities are expected to be more volatile. The committee should consider the effect on the scheme if equities were to give poor returns over the coming years.

11. It should be emphasised that these estimates are not exact forecasts of the future, but projections of what would happen on the basis of the stated assumptions. The demographic and economic assumptions underlying the estimates are inevitably subject to a considerable degree of uncertainty, particularly for the more distant future. Small changes in the assumptions used can lead to relatively large changes in the projected future financial position of the Fund.

12. The financial outlook for the Fund remains healthy in the short to medium term, largely as a result of the increases in the contribution rates each year from 1998 to 2002, the increases from 1998 to 2001 in the upper earnings limit over and above earnings growth and the reforms to incapacity benefits and dependants' increases. In the longer term the projections suggest that more action may be necessary to keep income and expenditure in line, but this will be very sensitive to the actual experience.

SECTION 1: Introduction and Scope of the Review

1.1 The Jersey Social Security Scheme has historically been financed on the pay-as-you-go principle with rates of contribution set to produce the income needed to meet current expenditure on benefits and the costs of administration. With this system of finance, the rates of contribution required may alter significantly over the years as a result of the maturing of the benefit rights under the scheme or on account of demographic or other factors leading to changes in the relative numbers of pensioners and contributors. For this reason the Jersey legislation makes provision for three yearly reviews by an actuary of the operation of the scheme, including long term projections of the expenditure and of the corresponding rates of contribution likely to be required over the years.

1.2 The report on the previous review covering the period 1st January 1998 to 31st December 2000 was submitted to the President and Members of the Social Security Committee of the States of Jersey in May 2002.

1.3 A summary of the contributions and benefits of the scheme is shown in Appendix A. The main legislative changes which were enacted in the period under review (1st January 2001 to 31st December 2003), and which have affected the entitlement to benefits and the structure of contributions in the Jersey Social Security Fund, are summarized in Appendix B. The projections of benefit expenditure and contribution income in this report take into account these changes. Appendix B also shows the income, expenditure and balances for the Social Security and the Social Security (Reserve) Funds for the 3 years ending 31st December 2003.

1.4 The object of this review, as stated in Article 32 of the Social Security (Jersey) Law 1974, is to determine the financial condition of the Jersey Social Security Fund and the current and future adequacy of the contributions payable in accordance with the law.

1.5 The Jersey Social Security Scheme has historically followed a pay-as-you-go financing approach. However, the contribution rates were increased by 0.5% in each year from 1998 to 2002, with the aim of setting contribution rates which are greater than those required in order to meet current benefit expenditure and the costs of administration. The aim of these increases is to build up the Social Security (Reserve) Fund to a level of around 5 times annual expenditure, moving the scheme towards being partially funded in order to dampen the effect of the worsening demographic position over the next 30 to 40 years.

1.6 The projections run for the 60 years from 2003 to 2063. Two main sets of results are presented in this report. Firstly, the projected future contribution rates which would be required in order for contribution income to equal expenditure on benefits and administration are given, assuming that the States contribution will continue to be calculated as at present (see Appendix A, paragraph A.15). These "break-even contribution rates" are the contribution rates which would be required if the scheme were following the pay-as-you-go financing approach. One of the main factors likely to cause significant changes in these rates in the future is the change in the relative numbers of contributors and pensioners. These factors are mainly demographic but include also social and economic factors such as changes in the proportion of women working, in the rate of unemployment or in the level of migration.

1.7 Secondly, the future combined balance in the Social Security and Social Security (Reserve) Funds, as a multiple of annual expenditure, is projected. For this purpose 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 funds in the Social Security (Reserve) Fund can be used to delay increases to contribution rates which would otherwise be required.

1.8 The projected demographic developments are discussed in Section 2. Very significant changes in the age structure of the population are expected over the next 30 to 40 years. The numbers over state pension age will be increasing steeply at a time when the numbers at working age will be stationary or declining, leading to a marked fall in the ratio of the number of contributors to the number of pensioners.

1.9 Section 3 of this report shows the projected financial situation of the scheme if benefit rates are increased in line with earnings growth, as specified under Article 13(2) of the current legislation. The estimates of income and expenditure are expressed in constant 2003 earnings terms. Since both benefit rates and the earnings of contributors will increase in line with earnings growth, the actual level of increases in earnings will not be relevant to the projected financial position of the scheme, assuming that future rates of investment return change in line with earnings growth.

1.10 The projections in this report have been calculated with reference to a large amount of data which has been received, covering demographic movements, the number of beneficiaries and the amounts of benefit paid, and the number of contributors and their earnings. The investigations carried out suggested that the data is of good quality, and in almost all cases data from different sources reconcile well with each other. Nevertheless, it should be noted that if any of the data used for the calculations are materially incorrect or incomplete, it could have a significant effect on the results.

1.11 Long term projections, such as the results contained in this report, are subject to a great deal of uncertainty. The results of the projections depend on a large number of assumptions with regard to the future experience of the scheme. The assumptions for the review are considered to be reasonable, and the methodology is consistent with sound actuarial principles. However, when considering the results of long term projections, it is vital to consider the potential effects on the results if the assumptions used are not borne out in practice. Section 4 discusses this uncertainty, and illustrates the effects on the results of the review of using alternative assumptions.

1.12 Section 5 of this report compares the results from Sections 2 and 3 with those from the report on the previous review.

1.13 Under legislation, the next review of the Social Security Fund is due to be carried out as at 31st December 2006, or earlier as the Committee may direct.

1.14 This report complies with the International Actuarial Association Guidelines of Actuarial Practice for Social Security Programs effective from 1st January 2003.

SECTION 2: The Demographic Assumptions

2.1 In order to project the future income and expenditure of the Jersey Social Security Fund, it is necessary first to project the future numbers in the population of Jersey subdivided by age and sex. It should be emphasised that these are not forecasts of the future population but illustrations of how the population would develop under a set of stylised assumptions, which are nevertheless regarded as reasonable assumptions to make for planning purposes. The March 2001 census was used as the starting point for the population projections, in conjunction with the recorded births, deaths and migration between then and March 2003.

2.2 Projections of the population many years ahead are inevitably subject to a considerable margin of uncertainty. Migration to and from Jersey is particularly difficult to predict and it is for this reason that we have based our projections on two different migration assumptions. These are:

(i) Zero net migration

(ii) Net inward migration of 200 a year at young working ages for all future years These assumptions refer to migration in respect of permanent residents only. In addition, there will be migration in respect of short term residents, as discussed below. These two assumptions have been chosen to demonstrate the effect migration has on the results and should not be regarded as forecasts of the expected future levels of migration.

2.3 An established feature of the economy of the island is the substantial number of seasonal workers, including workers from outside the island who remain resident in Jersey for only a few months of the year. The

resident population revealed by the census includes such seasonal workers as were present in the island at the time that the census was taken. In addition to these seasonal workers, a persistent feature of the population has been an excess of people, mainly in their 20s, who work in Jersey for a few years before returning to their country of origin ('transients'). The numbers of seasonal and transient workers assumed at this review are shown in Appendix C, Table C3. The number of transients assumed is the same as that assumed at the last review since there has been no further information on the subject. In making these projections we have assumed that the number and ages of these short term workers remain the same in the future.

2.4 Although the number of transient workers is assumed to remain constant in future, the movement of transient workers to and from the island is assumed to result in a certain degree of net emigration. This is because female transient workers may give birth while they are resident in Jersey, taking the children with them when they leave the island. Therefore, in any year, the number of transient workers entering the island is smaller than the number of transient workers plus their children leaving the island, resulting in net emigration equal to the number of children born to female transient workers. This feature is allowed for in the population projections, being in addition to the assumed migration in respect of permanent Jersey residents detailed in paragraph 2.2 above.

2.5 Those persons who will be over the pension age of 65 and receiving pensions during the 60 year projection period are already living. Apart from the effects of the different assumptions for migration, the projected numbers of pensioners will be very largely determined by the assumption about future mortality. The mortality rates used have been based on the experience in recent years, with an allowance made for continuing improvement in mortality in the future, assuming that mortality rates change in line with the rates projected for England and Wales (mid-2002 based population projection). Assumed improvements in mortality over the next 60 years would result in increases in life expectancy (on a calendar year basis) of approximately 8% at birth, and increases in life expectancy at age 65 of approximately 30% for males and 25% for females.

2.6 Mortality is of much less significance in determining the future numbers at working ages, but after about 20 years the numbers at these ages will depend to an increasing extent on the future numbers of births. Over the past 15 years, fertility rates for women have changed broadly in line with England and Wales fertility rates, although with fertility in Jersey being lower at younger ages and higher at the older ages than in England and Wales. We have assumed that fertility rates continue to change in line with the rates projected for England and Wales (mid-2002 based population projection). This results in an increase in fertility rates of around 5% over the next 10 years, with rates remaining broadly constant thereafter. The assumed number of children per women, excluding seasonal workers who are assumed not to give birth while they are on the island, is ultimately 1.6, around 25% below the rate of 2.1 which is necessary for a generation exactly to reproduce itself.

2.7 The projected future numbers in the population, by age and sex, are shown in Appendix C. A summary of the future numbers in the age bands most relevant for this review is given in Table 2 assuming zero net migration in the future and in Table 3 assuming net inward migration of 200 a year. The projected future numbers in the population are illustrated in Figures 1 and 2. It can be seen that the total population assuming zero net migration is expected to remain around its current level until the year 2023, after which it will decline so that by 2063 the population will only be approximately 80% of current levels. Assuming net immigration of 200 a year, the population is expected to increase by about 7% by the year 2033 before falling to 2% above its current level by 2063.

TABLE 2: Projected population of Jersey assuming no net migration after March 2003

	2003	2008	2013	2023	2033	2043	2053	2063
Males								
0-15	8,031	7,572	6,889	6,145	6,081	5,504	4,884	4,642
16-64 (W)	29,546	29,651	29,275	27,428	24,116	22,990	22,221	20,242
65 and over (P)	5,524	6,194	7,273	9,462	11,705	11,164	9,780	9,543
Total	**43,101**	**43,416**	**43,437**	**43,035**	**41,901**	**39,658**	**36,884**	**34,426**
W/P	5.3	4.8	4.0	2.9	2.1	2.1	2.3	2.1
Females								
0-15	7,598	7,067	6,475	5,726	5,665	5,127	4,547	4,326
16-64 (W)	30,372	30,536	29,936	27,797	24,055	22,217	21,236	19,279
65 and over (P)	7,195	7,608	8,662	11,101	13,816	13,819	12,174	11,177
Total	**45,165**	**45,210**	**45,073**	**44,624**	**43,536**	**41,162**	**37,958**	**34,783**
W/P	4.2	4.0	3.5	2.5	1.7	1.6	1.7	1.7
Persons								
0-15	15,629	14,639	13,364	11,871	11,747	10,631	9,431	8,968
16-64 (W)	59,918	60,186	59,211	55,225	48,171	45,207	43,457	39,521
65 and over (P)	12,720	13,802	15,935	20,563	25,521	24,982	21,954	20,720
Total	**88,267**	**88,627**	**88,510**	**87,659**	**85,438**	**80,820**	**74,842**	**69,209**
W/P	4.7	4.4	3.7	2.7	1.9	1.8	2.0	1.9

(1) The numbers shown are the average population during the calendar year including seasonal and transient workers.

TABLE 3: Projected population of Jersey assuming net immigration of 200 a year after March 2003

	2003	2008	2013	2023	2033	2043	2053	2063
Males								
0-15	8,031	7,602	7,022	6,821	7,255	6,884	6,591	6,722
16-64 (W)	29,571	30,175	30,296	29,456	27,403	27,912	28,352	27,347
65 and over (P)	5,524	6,194	7,273	9,462	11,705	11,165	10,276	10,804
Total	**43,127**	**43,970**	**44,591**	**45,739**	**46,362**	**45,960**	**45,219**	**44,873**
W/P	5.4	4.9	4.2	3.1	2.3	2.5	2.8	2.5
Females								
0-15	7,598	7,095	6,599	6,354	6,754	6,407	6,137	6,258
16-64 (W)	30,397	31,060	30,960	29,834	27,346	27,117	27,301	26,257
65 and over (P)	7,195	7,608	8,662	11,101	13,816	13,820	12,699	12,545
Total	**45,191**	**45,763**	**46,221**	**47,290**	**47,917**	**47,344**	**46,136**	**45,061**
W/P	4.2	4.1	3.6	2.7	2.0	2.0	2.1	2.1
Persons								
0-15	15,630	14,697	13,622	13,175	14,009	13,291	12,728	12,980
16-64 (W)	59,968	61,235	61,256	59,290	54,749	55,029	55,652	53,604
65 and over (P)	12,720	13,802	15,935	20,563	25,521	24,984	22,974	23,349
Total	**88,317**	**89,733**	**90,812**	**93,029**	**94,278**	**93,304**	**91,355**	**89,934**
W/P	4.7	4.4	3.8	2.9	2.1	2.2	2.4	2.3

(1) The numbers shown are the average population during the calendar year including seasonal and transient workers.

Figure 1– Projected population of Jersey assuming zero net migration

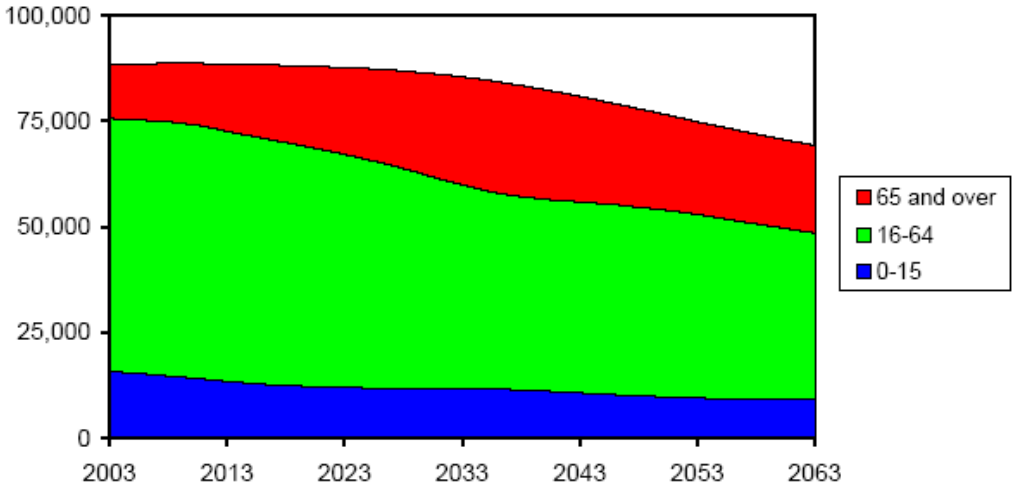
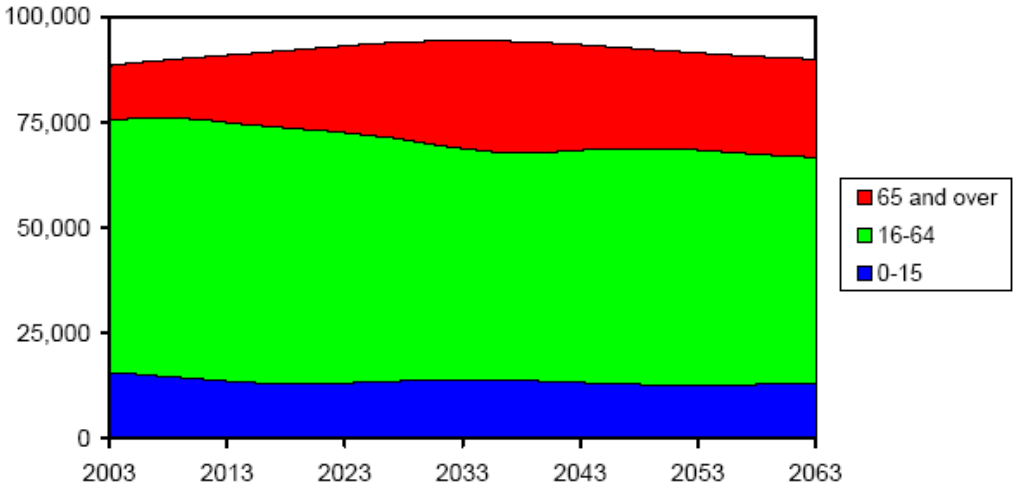


Figure 2 – Projected population of Jersey assuming net immigration of 200 a year

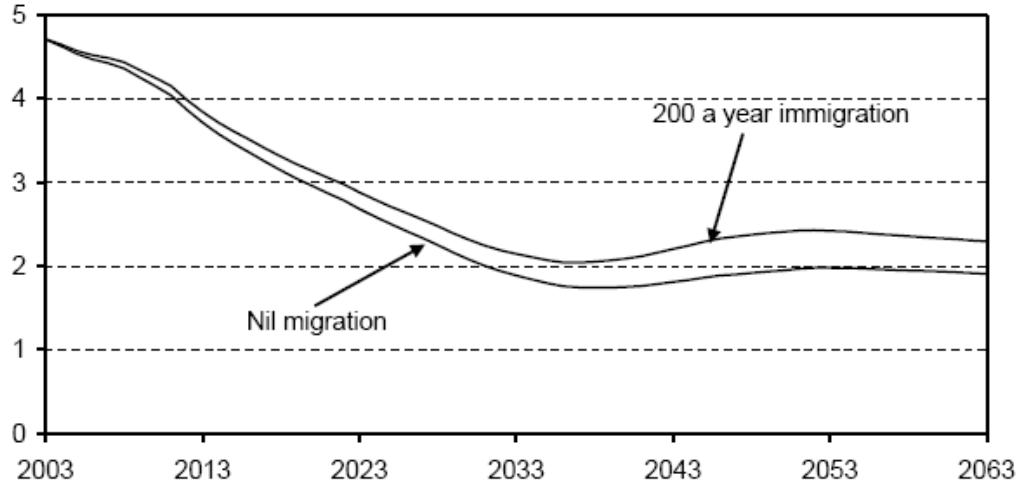


2.8 On the basis of the projections, the numbers resident in Jersey over the current pension age of 65 will rise slowly from a about 12,500 in 2003 to just under 26,500 in 2037, a total rise of approximately 110%. The numbers are very similar on both projections since future migrants would not have reached age 65 in any number by 2037. After 2037 the numbers will start to fall, reaching approximately 20,500 by 2063 assuming zero net migration and approximately 23,500 assuming net immigration of 200 a year.

2.9 By contrast, the expected numbers at working ages, assuming zero net migration in the future, will fall from just under 60,000 in 2003 to around 54,000 by 2025 and then to just over 39,500 by 2063, a total fall of 34%. Assuming net inward migration of 200 a year, the expected numbers at working age will rise from just under 60,000 in 2003 to just over 61,500 in 2011 before falling to approximately 53,500 by 2063, a fall over the whole period of 11%. The fall in the numbers at working ages when there is no migration to boost them is due mainly to the level of fertility rates being below the level required to replace the population.

2.10 The number of persons of working age per person over pension age, the main demographic determinant of the contribution rate required, falls from 4.7 in 2003 to 1.7 in 2038 before rising to 1.9 by 2063 assuming zero net migration. Assuming net immigration of 200 a year, this ratio is expected to fall from 4.7 in 2003 to 2.0 in 2037 before rising to 2.3 in 2063. This ratio is illustrated in Figure 3.

Figure 3 - Projected number of people of working age per person over pension age



SECTION 3: The Estimated Outgo, Rates of Contribution Required and Balance in the Funds in Future Years

3.1 Estimates have been made of the future income, benefit expenditure and administration expenditure of the scheme, in the manner and on the assumptions described in the preceding sections of the report and in detail in Appendix D.

3.2 Estimates of the expenditure on the various types of benefit are given in Appendix E, assuming that benefit rates are increased annually in line with earnings growth as required by current legislation. Estimates of future contribution income from the different classes of contribution, including estimates of the States contribution, are given in Appendix F. The estimated contribution income is calculated assuming that currently current contribution rates apply in all future years. Earnings limits for contributions are assumed to increase in line with general earnings growth.

3.3 Table 4 sets out estimates of the future expenditure from the Social Security Fund, including expenditure on administration, and of the contribution rates required in order to meet this expenditure, for both sets of migration assumptions. These are the contribution rates which would be required if the pay-as-you-go approach to financing were being followed. The contribution rates are a percentage of earnings up to the upper limit, and are illustrated in Figure 4.

3.4 The results in Table 4 and Figure 4:

(i) exclude the contributions paid to the Health Insurance Scheme,

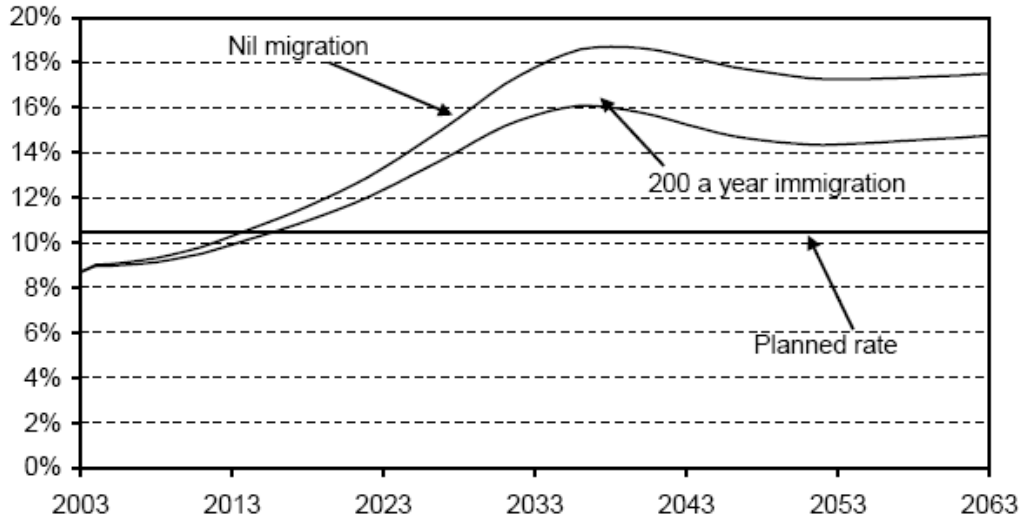
(ii) assume the States contribution will continue to be calculated as at present (see Appendix A, paragraph A.15), and

(iii) assume that the current assets of the Fund and the income generated from the assets are not drawn upon to meet expenditure of the scheme.

TABLE 4: Estimates of future expenditure from the Social Security Fund in 2003 earnings terms and the contribution rates required in order to break even, assuming that benefit rates and earnings limits increase in line with earnings

Year	Expenditure (£m)		Contribution rates (%)	
	Zero net migration	Net immigration of 200 a year	Zero net migration	Net immigration of 200 a year
2003	131	131	8.7	8.7
2008	135	136	9.3	9.1
2013	149	150	10.3	9.9
2023	182	184	13.3	12.3
2033	220	223	17.8	15.7
2043	214	218	18.3	15.2
2053	192	206	17.3	14.4
2063	179	206	17.5	14.7

Figure 4 – Projected break-even contribution rates

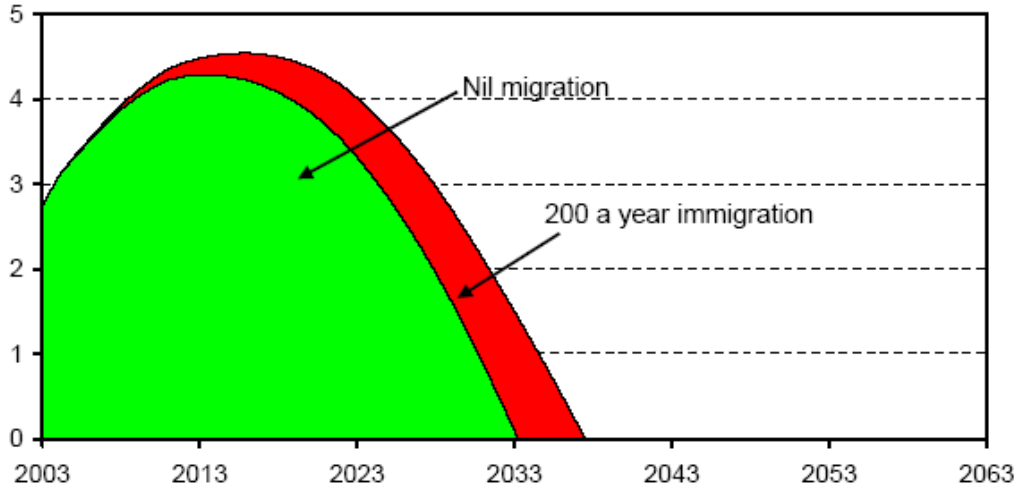


3.5 Table 4 shows that the break-even contribution rate is projected to remain below the planned rate of 10.5% for at least the next ten years. The contribution rate is expected to rise rapidly after that to reach a peak of 18.7% by 2038 assuming zero future net migration and 16.1% by 2036 assuming future net immigration of 200 a year. Following these peaks, the break-even contribution rate will reduce to 17.5% by 2063 assuming no future net migration and 14.7% assuming net immigration of 200 a year.

3.6 If the contribution rates shown in Table 4 were to be applied in practice and if the assumptions underlying the estimates exactly fitted the experience in future years, then the entire investment income would be available for reinvestment and the combined balance in the Social Security and Social Security (Reserve) Funds would grow in relation to benefit expenditure. This is mainly because we expect the rate of return on investments to be greater than the rate of increase in earnings.

3.7 Alternatively, the current balances in the Social Security Funds, and the fact that the planned rates of contribution are greater than those currently needed to break even on a pay-as-you-go basis, can be used in order to lessen the need to increase contribution rates in the future in response to changing demographics. Figure 5 shows the projected combined balance in the Social Security and Social Security (Reserve) Funds, as a multiple of total expenditure including expenditure on administration, assuming that the current contribution rates apply for all future years. The projected balance is shown for both migration assumptions.

Figure 5 – Projected balance as multiple of expenditure



3.8 The calculations underlying Figure 5 assume that the future rate of return on investments, net of associated expenses, will be 2% per annum in excess of earnings increases. The projected fund as a multiple of expenditure for 2003 and 2004 is higher than it would otherwise have been as a consequence of the positive investment return achieved during 2003.

3.9 Assuming zero future net migration, if the current contribution rates were to be paid in the future, the projected balance in the Funds as a multiple of annual expenditure would grow to a maximum of 4.3 in 2013. Thereafter, the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2033. After this point, it would be necessary to increase contribution rates to at least the break-even rate of 17.8%. In practice, it may be considered necessary to increase contribution rates before the Funds were extinguished.

3.10 Assuming future net immigration of 200 a year, the projected balance in the Funds would grow to a maximum of 4.5 times annual expenditure in 2016, if the current contribution rates were to be paid. Thereafter, the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2037. After this point, it would be necessary to increase contribution rates to at least the break-even rate of 16.1%.

3.11 To the extent that the future experience of the scheme may not follow the assumptions made for the purpose of these projections, the future financial position of the scheme may differ considerably from that described above. In particular, the year at which the fund is exhausted is sensitive to small changes in the assumptions. Section 4 contains discussion of the uncertainty inherent in long term projections such as these, and shows the effects on the principal results of this review of varying the assumptions used.

SECTION 4: Illustrative Effects on the Principal Results of Variations in the Assumptions Used

4.1 The results described in Section 3 are dependent on a number of assumptions which have been made with regard to the future experience of the Social Security Scheme. These assumptions include:

(i) Demographic assumptions, such as future fertility and mortality rates, future levels of migration in respect of permanent residents, and the effects of short term migrants.

(ii) Economic assumptions, such as the future rate of return on the investments of the Social Security and Social Security (Reserve) Funds, and the levels of employment and unemployment.

(iii) Scheme assumptions, such as the effects of legislative changes which have been made to the scheme benefits.

4.2 When considering the results contained in this report, attention should be given to the fact that, if the assumptions used are not borne out in practice, the future financial position of the scheme could be significantly different from that shown in the projections. The results in this report should not be considered to be a certain prediction of the future financial position of the scheme. Instead, they should be regarded as an indication of the likely future position, if experience were to follow the assumptions made. It is therefore vital, when considering the results of long term projections, to consider the potential effects on the results of the projections if different assumptions were to be used.

Demographic assumptions

4.3 The results in Sections 2 and 3 are shown on the basis of two alternative assumptions regarding the future level of net migration of the permanent population of Jersey. It should be noted these two alternative scenarios are illustrative and should not be taken as setting bounds to the range of possibilities. The higher the level of future net immigration, the more any necessary increases to contribution rates could be deferred. Conversely, net outward migration would require contribution rates to be increased sooner.

4.4 Attention should be given to the possible effects on the results of the projections if the experience with regard to future fertility and mortality rates were to differ from the assumptions made. Any changes in future rates of fertility would have little effect on the projected benefit expenditure over the period of the review, since people who are born after the date of the valuation will not reach pension age during the period of the review. However, the level of contribution income would be affected, after an initial period of around 20 years. An increase in the assumed fertility rates would therefore improve the future financial position of the scheme, reducing the required break-even contribution rates after 20 years, and delaying the point at which contribution rates would need to be increased. Conversely, a decrease in the assumed fertility rates would worsen the future position of the scheme.

4.5 Any changes in the assumed rates of mortality would have little effect on contribution income. However, if lighter rates of mortality were to be assumed in the future, this would increase the projected expenditure on old age pensions, and consequently increase the required break-even contribution rates. Conversely, heavier assumed rates of mortality would improve the future financial position of the scheme.

Economic assumptions

4.6 It has not been necessary to make assumptions regarding the future levels of price inflation or earnings growth for this review. All results are presented in constant earnings terms, and benefit rates are assumed to be increased in line with earnings growth in the future. Therefore the absolute levels of price inflation or earnings growth do not affect the results in this report.

4.7 For the purposes of projecting the future combined balance in the Funds, it has been necessary to make an assumption regarding the future rate of return of the investments. It has been assumed for the principal results that the future rate of return, net of associated expenses, is 2% per annum in excess of earnings growth. This is discussed further in paragraph D.26. The effects on the results from Section 3 of varying the future rate of investment return by 1% per annum are shown in Figure 6 and Figure 7.

4.8 Assuming zero future net migration and a rate of return 1% per annum higher from 2004 compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 4.7 in 2016, if the current contribution rates were to be paid. Thereafter the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2036. If the rate of return were 1% per annum lower compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 4.0 in 2012, after which it would fall until the funds are extinguished in 2031.

4.9 Assuming future net immigration of 200 a year and a rate of return 1% per annum higher from 2004 compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 5.1 in 2018, if the current contribution rates were to be paid. Thereafter the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2042. If the rate

of return were 1% per annum lower compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 4.1 in 2013, after which it would fall until the funds are extinguished in 2035.

4.10 The investment return each year is closely linked to the size of the fund and the assumed investment return. The projected total capital return and investment income, net of associated expenses, are tabulated in Appendix G.

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

Figure 6 - Projected balance as multiple of expenditure for different investment returns with nil migration

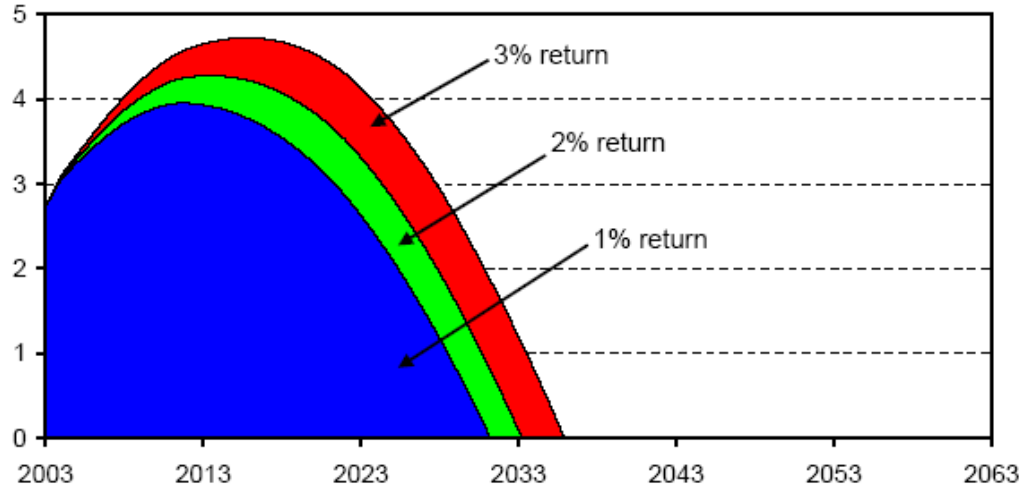
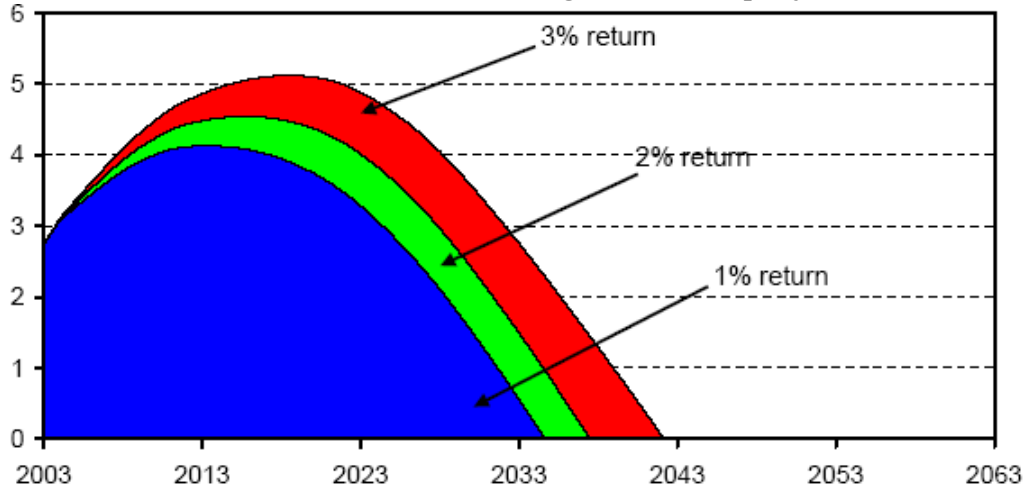


Figure 7 - Projected balance as multiple of expenditure for different investment returns with net immigration of 200 per year



Scheme assumptions

4.12 The future level of expenditure on old age pensions is subject to a degree of uncertainty. The current level of expenditure is less than the amount which would be expected if everybody who appears to be entitled to a pension based on past contributions data were to claim one. This feature may be expected because people who have paid contributions in Jersey in the past, but who are no longer resident in Jersey when they attain State pension age, will be less likely to claim a pension than residents.

4.13 The principal projections shown in this report assume that between 2003 and 2033 there is a gradual increase each year in the likelihood and size of claims of old age pensions. Most of this is due to an assumption that non-residents will become more likely to claim their pensions. Data on old age pension claims and expenditure indicates that such an increase has not occurred in the recent past. If it were to be the case that there is no such future increase in the likelihood of claims from non-residents, then expenditure on old age pensions in the longer term may be approximately 10% lower than that included in the principal projections.

4.14 Conversely, it may be the case that the various legislative changes which have been made since the last review will increase future benefit expenditure to a greater extent than that which has been allowed for in the principal results, or that the likelihood of claims of old age pensions from non-residents increases by a greater amount in the future than that allowed for in the principal results.

4.15 In order to provide an indication of the variability of the results of the review, Table 5 indicates the projected break-even contribution rates and the year in which the Funds are extinguished (assuming that the current contribution rates are paid in the future) if the future costs of old age pension were to be 10% higher or lower than those assumed for the main projections. This is assumed to apply from 2033 onwards, building up to this level uniformly from 2004. The 10% difference may be as a result of mortality experience differing from the assumptions used, or because of the future level of claims differing from the assumed level, or because of the effects of the legislative changes to old age pension differing from those assumed. It 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: Illustrative effects of expenditure on old age pensions being either 10% higher or 10% lower from 2033 compared with the principal results, with this difference phased in uniformly from 2004

Year	Zero net migration			Net immigration of 200 a year		
	Main results (1)	OAP 10% higher	OAP 10% lower	Main results (1)	OAP 10% higher	OAP 10% lower
Break-even contribution rate (%)						
2023	13.3	14.0	12.6	12.3	13.0	11.7
2043	18.3	19.8	16.7	15.2	16.5	14.0
2063	17.5	19.0	16.0	14.7	16.0	13.5
Year in which Funds are extinguished (2)	2033	2031	2037	2037	2034	2045

(1) Break-even contribution rates are as shown in Table 4 in Section 3.
(2) Assuming that the current contribution rates are paid in the future.

4.16 The illustrative effects of varying certain assumptions shown in this section have considered the effects of varying these assumptions in isolation. The potential effects on the results of varying a combination of different assumptions should also be considered.

SECTION 5: Comparison of Results in this Report with those from the Report on the Previous Actuarial Review Population projections

5.1 Table 6 compares the results of the population projections described in Section 2 of this report with the population projections from the report on the previous actuarial review of the Social Security Scheme. Numbers are shown for the years for which results were given in the report on the previous review.

TABLE 6: Comparison of results in this report with those from the report on the previous actuarial review – population projections

	2005	2010	2020	2030	2040	2050	2060
Net nil migration – population numbers							
Last review	**88,712**	**88,658**	**87,630**	**85,516**	**80,981**	**74,735**	**68,889**
Change	-210	-34	+348	+839	+1,443	+1,933	+1,895
This review	**88,502**	**88,624**	**87,978**	**86,355**	**82,424**	**76,668**	**70,784**
Net immigration of 200 a year – population numbers							
Last review	**89,600**	**90,736**	**92,716**	**94,013**	**93,125**	**90,933**	**89,231**
Changes	-638	-552	-363	+125	+658	+1,001	+1,022
This review	**88,962**	**90,184**	**92,353**	**94,138**	**93,783**	**91,934**	**90,253**
Net nil migration – numbers at working age per person over pension age							
Last review	4.5	4.2	3.1	2.2	1.9	2.2	2.2
This review	4.5	4.2	3.0	2.1	1.7	1.9	1.9
Net immigration of 200 a year – numbers at working age per person over pension age							
Last review	4.6	4.3	3.3	2.5	2.3	2.7	2.6
This review	4.6	4.3	3.1	2.3	2.1	2.4	2.3

5.2 The projected population for this review is ultimately higher than that from the previous actuarial review, on both migration bases, although it is initially lower. The population projections from the previous actuarial review assumed either nil net migration or net immigration of 200 a year from March 2001 onwards. The population projections for this review were based on the actual reported migration between January 2001 and December 2003, which was approximately -130 This would, by itself, result in a reduced population of approximately 130 when comparing the nil migration projections, and a reduction of approximately 730 when comparing the net immigration of 200 a year projections, in March 2001. The differences shown in Table 6 are slightly lower than these figures, as a result of other differences

5.3 At the last review, it was assumed that life expectancy at age 65 would increase by 20% and 15% for males and females respectively over the period of the projections. These increases are now assumed to be 30% and 25%. This accounts for the major part of the balance of the increase in the population projections after migration has been allowed for.

5.4 In addition to these effects, there are smaller effects, including the effect of other changes made to the assumptions underlying the population projections.

5.5 The fact that the number of people of working age per person over pension age is now projected to decrease more than at the time of the previous actuarial review suggests that the required break-even contribution rates will be higher than those calculated at the time of the previous actuarial review. Table 7 compares the projected break-even contribution rates from this report with those shown in the report on the previous actuarial review. Results are shown for the years for which results were given in the report on the previous review.

TABLE 7: Comparison of results in this report with those from the report on the previous actuarial review – break-even contribution rates (%)

	2005	2010	2020	2030	2040	2050	2060
Net nil migration							
Last review	**9.0**	**9.8**	**12.4**	**16.3**	**17.8**	**16.3**	**16.4**
Actual 2003 position	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Population projection	0.0	0.1	0.4	0.8	1.4	2.0	2.2
Other changes	0.1	-0.2	-0.4	-0.4	-0.4	-0.8	-1.0
This review	**9.0**	**9.6**	**12.2**	**16.6**	**18.6**	**17.4**	**17.4**
Net immigration of 200 a year							
Last review	**8.9**	**9.4**	**11.6**	**14.5**	**15.0**	**13.7**	**14.0**
Actual 2003 position	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Population projection	0.0	0.1	0.3	0.7	1.2	1.4	1.5
Other changes	0.1	-0.2	-0.4	-0.4	-0.5	-0.7	-0.9
This review	**9.0**	**9.4**	**11.5**	**14.8**	**15.8**	**14.4**	**14.6**

(1) Figures may not sum to totals shown due to rounding.

5.6 In Table 7, the changes between the required break-even contribution rates projected at the time of the last review and those in this report have been separated into different components. The required contribution rates decrease by a small amount initially, as the experience of the scheme over the review period has been a little more favourable than that projected at the time of the last actuarial review. The effects of revising the population projections, as discussed above, lead to an increase of around 2.2% to the required contribution rate by 2060 assuming zero future net migration, and of around 1.5% assuming immigration of 200 a year. Various other changes which have been made to the methods and assumptions underlying the projections result in a decrease of around 1.0% to the required contribution rate by 2060 under the nil migration scenario, and 0.9% under the 200 per year net immigration scenario.

5.7 In particular, the changes to the eligibility for dependant's increases have reduced costs for males. The assumed size of claims of incapacity pensions has also been reduced to take into account the expected contribution records of those claiming this benefit. As set out in paragraph 4.12, it has been assumed that the pension cost per person in the population increases in the future, mainly because of an assumed increase in the likelihood of claims of old age pensions from non-residents. The extent to which this occurs has been increased since the last review as the contribution model suggests that future claims will be larger than assumed at the last review. This assumption will continue to be reviewed in the future, taking into account future data on claims and contributions.

5.8 In the report on the previous review, it was estimated that the combined balance in the Social Security and Social Security (Reserve) Funds would be extinguished by 2035 assuming zero future net migration, and by 2042 assuming future net immigration of 200 a year. The corresponding figures in this report are 2033 and 2037 respectively. The reasons for the change in the estimated time before the Funds are extinguished are similar to the reasons for the increases in the projected break-even contribution rates discussed above. In addition, the investment performance of the Funds over the review period, and hence the combined balance in the Funds at the valuation date, also affects the estimated time at which the Funds are extinguished.

APPENDIX A

Summary of Contributions and Benefits

A.1 This appendix summarises the principal provisions regarding the contributions and benefits in the Social Security (Jersey) Law 1974 on which the estimates for future years in this review are based. It concentrates on those aspects of contribution liability and benefit entitlement that are significant in financial terms, and on changes which have been introduced since the last review.

A.2 In order to receive an old age pension at the full rate, the pensioner must have a life average contribution factor (LACF) of 1.00. The LACF is calculated as the ratio of the number of contributions paid or credited to the number which could have been made over a 45 year period between school leaving age and pension age. For those with a lower LACF, the benefit is reduced pro rata, subject to a minimum LACF of 0.10. Women married before April 2001 can claim a pension of 66% of that payable to their husbands if this is more than the pension they have earned on their own contributions, and all widows over pension age can claim a pension of the same amount as that payable to their late husbands.

A.3 Pension age is 65. However, women who entered the scheme before the 1974 law came into force retain the right to claim a pension from age 60. It is also possible to retire 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 is paid at this reduced level throughout retirement.

A.4 For people who retired before April 2001, the qualifying conditions for an old age pension were different. The LACF required to receive a full pension depended on the year that a person joined the scheme. For those already insured before the 1974 law came into effect, this level was 0.94. For those entering the scheme after this, the level was 0.96. For those with a lower LACF, the benefit was reduced pro rata, again subject to a minimum LACF of 0.10 in order to be entitled to an old age pension. The LACF was calculated as the ratio of the number of contributions paid or credited to the number which could have been made between school leaving age and pension age. It was not possible to retire early before April 2001.

A.5 There are two benefits paid to people widowed under pension age in April 2001 or afterwards. Survivor's allowance of 1.2 times the standard rate is paid for the first 12 months after a man or woman has been widowed. After that a survivor's pension is paid, the amount being dependent on the contribution record of the deceased spouse. The standard rate is adjusted according to the LACF in the same way as for old age pension, with the LACF calculated using the date of death instead of the pension age. For people widowed prior to April 2001, there were three benefits, widow's allowance, widow's pension and widowed father's allowance. The first two of these benefits correspond to survivor's allowance and survivor's pension as described above, but are paid to widows only. Widowed father's allowance is paid to widowers with children under the age of 16. The amount of this benefit is dependent on the contribution record of the deceased wife. These benefits are only paid until the beneficiary reaches pension age.

A.6 There are two groups of pensions which are paid from the Fund but which are not included above. Social assurance pensions are the remaining pensions paid under a previous scheme. Non-contributory pensions were pensions paid to those born before 10th September 1896 and to their wives and widows. As at 31st December 2003 there were no longer any recipients of non-contributory pensions.

A.7 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 after 1st October 2004. For claims prior to October 2004, sickness benefit is paid for up to one year. If the person is still unfit for work, they can then claim invalidity benefit until they are fit to return to work or until they reach pension age. The contribution conditions are that the person must have paid at least 13 weeks' contributions for sickness benefit and 26 weeks' contributions for invalidity benefit and that they must have paid or been credited with contributions throughout the calendar quarter six months before the date of claim in order to receive the standard rate of benefit. A.8 Accident benefit is paid to an insured person on incapacity following an

accident. For claims prior to 1st October 2004, there were two types of accident benefit:

(i) Injury benefit, which is similar to sickness benefit,

(ii) Disablement benefit, which is payable after injury benefit ceases in cases of continuing disablement. The benefit is payable even if the insured person can return to work and the amount depends on the degree of disablement. Where the degree of disablement is 15% or lower, the benefit is paid in a lump sum, rather than as regular benefit payments.

The contribution conditions are similar to those for sickness and invalidity benefits, but in addition a person can qualify if a contribution was due in the month of the accident.

A.9 Legislation to reform incapacity benefit and accident benefit, creating a revised incapacity benefit, has been passed by the States. Claims after 1st October 2004 come under the reformed scheme. Under these reforms, the benefits payable are short term incapacity allowance, long term incapacity allowance and incapacity pension. Broadly, short term incapacity allowance corresponds to current sickness benefit and injury benefit. Long term incapacity allowance corresponds to current disablement benefit. Cases which would have previously been awarded invalidity benefit will be awarded long term incapacity allowance, and will receive a benefit payment which depends on the degree of disablement, unless they are likely to be permanently incapable of work, in which case they will receive incapacity pension. 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.

A.10 A maternity grant is paid for each birth in Jersey where either the mother or her husband has paid contributions for at least three months at any time before the start of the calendar quarter prior to that in which the birth is expected. From 1st January 2003, 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 sickness benefit.

A.11 A death grant is paid for all deaths in Jersey where the deceased, the surviving spouse or (in the case of a child) a parent has met the contribution conditions. The conditions are that either a contribution was due in the month of death or that the equivalent of one year's contributions has been paid in the past.

A.12 Table A1 shows the weekly rates of benefit in force between 2000 and 2003. During this period, benefit rates have been increased annually in line with earnings growth.

TABLE A1: Weekly benefit rates from 1 October (£ per week)

Year from 1 October	Standard rate no dependants (1)	Standard rate with dependants (1)	Married woman's old age pension	Survivor's/ Widow's allowance
2000	119.49	198.38	78.89	143.36
2001	129.15	214.41	85.26	154.98
2002	134.54	223.37	88.83	161.49
2003	140.84	233.80	92.86	169.05

(1) The standard rate is paid for old age pension, survivor's/ widow's pension, widowed father's allowance, short and long-term incapacity allowance, incapacity pension, sickness benefit, invalidity benefit, injury benefit and maternity allowance. For disablement benefit, a proportion of the standard rate is payable depending on the degree of disability.

A.13 Contributions are required from everyone in the island between the ages of 16 and 65 who works more than

eight hours a week, with some exceptions. Some married women can "opt out" of paying full contributions, but this option is only available to those who were married before 1st April 2001. Employees and employers pay Class 1 contributions, and the self-employed pay Class 2 contributions. The rate of Class 2 contributions is the sum of the employee and employer Class 1 contribution rates.

A.14 Non-employed people may pay class 2 contributions to gain entitlement. Some of these people may instead gain entitlement through credits if they are a student, unemployed, sick or unable to work, widowed or staying at home to care for a child.

A.15 Table A2 shows the earnings limits and contribution rates which applied between 2001 and 2003. Contributions are payable on all earnings up to the upper limit. If earnings are above the threshold and below the upper limit, the States contributes the difference between contributions based on actual earnings and contributions based on the upper limit. If earnings are above the upper limit, contributions are based on the amount of the upper limit only.

A.16 During the period from 1998 to 2002, the total contribution rate increased each year by 0.5%, after which it will remain constant. During the period from 2001 to 2003, the lower threshold was increased in line with earnings. In 2001 the upper limit was increased by £50 per month in addition to increases in line with earnings. From 2002, the upper limit has been increased in line with earnings.

TABLE A2: Earnings limits and contribution rates (1)

Year	Monthly threshold (£)	Monthly upper limit (£)	Employee rate (%)	Employer rate (%)	Total rate (2) (%)
2001	517	2,446	4.9	5.1	10.0
2002	559	2,644	5.2	5.3	10.5
2003	582	2,754	5.2	5.3	10.5

(1) The contribution rates exclude contributions in respect of the Health Scheme.
(2) The Class 2 contribution rate is the same as the total employee and employer rate.

APPENDIX B

Fund Legislation and Accounts since 1st January 2001

B.1 The changes to contribution rates which were specified in the Social Security (No. 3) (Jersey) Regulations 1997 continued to be applied throughout the period since the last review. Further details of these changes are given in Appendix A.

B.2 The Social Security (Amendment No. 14) (Jersey) Law 2000 made a number of significant changes to the Social Security Scheme, principally:

(i) Provision for early retirement, with the option to claim an old age pension between the ages of 63 and 65, if the relevant qualifying conditions are satisfied, subject to the amount of old age pension being reduced by 0.58% for each month between the month of claiming the old age pension and the month of reaching age 65.

(iii) The replacement of widow's benefit and widowed father's allowance by survivor's benefit, consisting of survivor's allowance and survivor's pension. Widowers and widows are entitled to the same benefits.

(iv) The abolition of the option for married women to be exempt from paying full contributions.

(v) Revisions to the qualifying conditions for old age pension, with a reduction in the number of years of contributions required to become entitled to a full pension to 45. Further details of these changes are included in Appendix A. The Social Security (Amendment No. 14) (Jersey) Law 2000 (Appointed Day) Act 2001 specified that the changes listed above would come into force from 1st April 2001.

B.3 The Social Security (Contributions) (Amendment No. 6) (Jersey) Order 2001 increased the provision of credits for students and for parents who are not working if they are caring for a young child. These arrangements came into force on 1st April 2001.

B.4 Women are now only able to claim a pension based on their husband's contribution record if the claim is in respect of a marriage that occurred before April 2001.

B.5 The Social Security (Amendment No. 15) (Jersey) Law 2002 extended the payment to the parents of an adopted child of maternity grants on adoption, and of death grants on the death of an adopted child. The Social Security (Amendment No. 15) (Jersey) Law 2002 (Appointed Day) Act 2002 specified that this change would come into force from 1st January 2003.

B.6 The Social Security (Amendment No. 14) (Jersey) Law 2000 also made provision for the replacement of sickness benefit, invalidity benefit, injury benefit and disablement benefit by a reformed incapacity benefit, which consists of short term incapacity allowance, long term incapacity allowance and incapacity pension. These reforms came into force on 1st October 2004, as specified by the Social Security (Amendment No. 14) (Jersey) Law 2004 (Appointed Day) Act 2001. Further details of the incapacity benefit reform were included in the Social Security (Incapacity Benefits) (Jersey) Order 2004, the Social Security (Medical Certification) (Amendment) (Jersey) Order 2004, the Social Security (Medical Certification) (Amendment No. 2) (Jersey) Order 2004, the Social Security (Determination of Disablement Questions) (Amendment) (Jersey) Order 2004 and the Social Security (Assessment of Long-term Incapacity) (Jersey) Order 2004, which also came into force on 1st October 2004. Those claiming one of the old incapacity benefits at the time of the change continue to receive benefits under the old scheme until they are ineligible for that benefit.

Further details of these changes are included in Appendix A.

B.7 At the same time as the introduction of the reformed incapacity benefits, the criteria for claiming a dependency increase for a spouse or partner changed. A person claiming a benefit may now claim a dependency increase in respect of a partner who is claiming credits for caring for a young child. Before

2004, a man could claim an increase for his wife, regardless of her employment situation or contribution record. There are transition arrangements for those married before April 2001.

B.8 The transactions of the Social Security and Social Security (Reserve) Funds in the period 1st January 2001 to 31st December 2003 are summarised in Table B1, whilst a breakdown of expenditure by benefit is shown in Table B2.

TABLE B1: Summary of income and expenditure and balances of the Jersey Social Security and Social Security (Reserve) Funds in the period 1 January 2001 to 31 December 2003

£ thousand	2001	2002	2003
Income			
Contribution income	92,826	103,988	108,428
States contribution	41,197	48,136	49,892
Investment return (1)	-38,715	-49,110	55,006
Other income	53	36	32
Total income	**95,361**	**103,050**	**213,358**
Expenditure			
Benefit expenditure	108,156	118,466	126,562
Administration expenditure	3,670	4,358	4,421
Total expenditure	**111,826**	**122,824**	**130,983**
Combined Funds (2)			
Balance at start of year (3)	352,935	336,470	316,696
Excess of income over expenditure	-16,465	-19,774	82,375
Balance at end of year	**336,470**	**316,696**	**399,071**
Of which:			
Social Security Fund	48,573	34,198	25,851
Social Security (Reserve) Fund	287,897	282,498	373,220
Mean of Funds at beginning and end of year	344,703	326,583	357,884
Mean of Funds as multiple of total expenditure	**3.1**	**2.7**	**2.7**
Rate of investment return	**-11%**	**-14%**	**17%**

(1) Net of associated expenses.
(2) Investments valued at market value.
(3) Figures may not sum to totals shown due to rounding.

B.9 Total income (including the States supplement) only exceeded expenditure in 2003. In the other years since the last review, expenditure exceeded income. In 2001 and 2002, there were investment losses, reflecting poor returns from investment markets generally. However, in 2003, the rate of investment return was positive. Due to this generally poor performance, the average annual rate of investment return over the three year period since the last review was -4%, and the combined Funds reduced from 3.37 times annual expenditure in 2000 to 2.73 times annual expenditure in 2003, considering the mean balance during the year in each case.

TABLE B2: Expenditure on social insurance benefits in the period 1 January 2001 to 31 December 2003

£ thousand	**2001**	**2002**	**2003**
Old age pensions	75,352	82,445	87,930
Widows' benefits	3,238	3,657	3,881
Social assurance pensions	22	15	7
Non-contributory pensions (2)	9	2	0
Sickness benefit	9,443	9,988	10,869
Invalidity benefit	13,506	15,077	16,260
Injury benefit	1,636	1,801	1,863
Disablement benefit	2,929	3,383	3,432
Maternity allowance	1,320	1,367	1,561
Maternity grant	353	351	418
Death grant	347	379	341
Total benefit expenditure (1)	**108,155**	**118,465**	**126,562**

(1) As shown in Table B1.
(2) No further non-contributory pensions are to be paid

APPENDIX C:

Population Projections

TABLE C1: The projected population of Jersey from 2003 to 2063 assuming net zero future migration and the fertility and mortality assumptions described in Section 2

	2003	2008	2013	2023	2033	2043	2053	2063
Males								
0-9	4,840	4,434	4,068	3,773	3,748	3,255	2,944	2,845
10-19	5,233	5,445	5,104	4,333	4,040	4,015	3,522	3,212
20-29	5,547	5,853	6,475	6,344	5,579	5,289	5,265	4,775
30-39	7,249	5,526	4,503	5,422	5,295	4,539	4,253	4,230
40-49	6,795	7,335	6,780	4,079	4,993	4,871	4,128	3,847
50-59	5,778	6,030	6,422	6,418	3,823	4,723	4,609	3,889
60-69	4,051	4,595	5,258	5,918	5,942	3,553	4,419	4,316
70-79	2,515	2,849	3,261	4,383	5,024	5,068	3,073	3,861
80 and over	1,092	1,350	1,566	2,365	3,458	4,345	4,672	3,451
Total	**43,101**	**43,416**	**43,437**	**43,035**	**41,901**	**39,658**	**36,884**	**34,426**
Females								
0-9	4,554	4,177	3,788	3,514	3,489	3,029	2,741	2,650
10-19	4,974	5,157	4,820	4,055	3,781	3,757	3,297	3,009
20-29	6,016	5,937	6,332	6,175	5,413	5,140	5,116	4,657
30-39	7,475	5,930	4,837	5,141	4,986	4,227	3,956	3,932
40-49	6,929	7,469	7,083	4,470	4,777	4,624	3,872	3,604
50-59	5,876	6,195	6,654	6,817	4,271	4,581	4,434	3,697
60-69	4,104	4,795	5,531	6,300	6,476	4,064	4,377	4,239
70-79	3,004	3,296	3,579	4,922	5,669	5,849	3,698	4,012
80 and over	2,233	2,254	2,449	3,230	4,675	5,892	6,467	4,983
Total	**45,165**	**45,210**	**45,073**	**44,624**	**43,536**	**41,162**	**37,958**	**34,783**
Persons								
0-9	9,395	8,612	7,856	7,287	7,237	6,284	5,685	5,494
10-19	10,207	10,601	9,923	8,388	7,821	7,771	6,819	6,221
20-29	11,563	11,791	12,808	12,519	10,992	10,429	10,381	9,432
30-39	14,724	11,457	9,340	10,563	10,281	8,766	8,209	8,162
40-49	13,724	14,803	13,864	8,549	9,769	9,495	8,000	7,452
50-59	11,654	12,225	13,075	13,235	8,094	9,304	9,042	7,586
60-69	8,155	9,390	10,789	12,218	12,418	7,617	8,796	8,555
70-79	5,519	6,145	6,841	9,304	10,693	10,918	6,771	7,873
80 and over	3,326	3,603	4,015	5,596	8,133	10,237	11,139	8,433
Total	**88,267**	**88,627**	**88,510**	**87,659**	**85,438**	**80,820**	**74,842**	**69,209**
Persons								
0-15	15,629	14,639	13,364	11,871	11,747	10,631	9,431	8,968
16-64 (W)	59,918	60,186	59,211	55,225	48,171	45,207	43,457	39,521
65 and over (P)	12,720	13,802	15,935	20,563	25,521	24,982	21,954	20,720
Total	**88,267**	**88,627**	**88,510**	**87,659**	**85,438**	**80,820**	**74,842**	**69,209**
W/P	4.7	4.4	3.7	2.7	1.9	1.8	2.0	1.9

(1) The numbers shown are the average population during the calendar year including seasonal and transient workers.

TABLE C2: The projected population of Jersey from 2003 to 2063 assuming net future immigration of 200 a year and the fertility and mortality assumptions described in Section 2

	2003	2008	2013	2023	2033	2043	2053	2063
Males								
0-9	4,841	4,464	4,201	4,335	4,532	4,153	4,094	4,203
10-19	5,242	5,514	5,174	4,536	4,671	4,868	4,489	4,431
20-29	5,564	6,306	7,291	7,221	6,589	6,726	6,922	6,546
30-39	7,249	5,528	4,638	6,349	6,284	5,661	5,799	5,996
40-49	6,795	7,335	6,780	4,213	5,908	5,848	5,236	5,377
50-59	5,778	6,030	6,422	6,418	3,954	5,614	5,561	4,972
60-69	4,051	4,595	5,258	5,918	5,942	3,678	5,260	5,215
70-79	2,515	2,849	3,261	4,383	5,024	5,068	3,186	4,596
80 and over	1,092	1,350	1,566	2,365	3,458	4,345	4,672	3,537
Total	**43,127**	**43,970**	**44,591**	**45,739**	**46,362**	**45,960**	**45,219**	**44,873**
Females								
0-9	4,555	4,206	3,911	4,037	4,217	3,863	3,810	3,910
10-19	4,983	5,227	4,890	4,248	4,374	4,554	4,200	4,148
20-29	6,032	6,391	7,150	7,055	6,415	6,542	6,721	6,369
30-39	7,475	5,932	4,973	6,076	5,982	5,346	5,473	5,653
40-49	6,929	7,469	7,083	4,605	5,704	5,614	4,984	5,112
50-59	5,876	6,195	6,654	6,817	4,404	5,492	5,406	4,791
60-69	4,104	4,795	5,531	6,300	6,476	4,193	5,254	5,176
70-79	3,004	3,296	3,579	4,922	5,669	5,849	3,819	4,816
80 and over	2,233	2,254	2,449	3,230	4,675	5,892	6,467	5,085
Total	**45,191**	**45,763**	**46,221**	**47,290**	**47,917**	**47,344**	**46,136**	**45,061**
Persons								
0-9	9,395	8,669	8,112	8,372	8,748	8,016	7,904	8,114
10-19	10,224	10,741	10,064	8,784	9,045	9,421	8,690	8,578
20-29	11,596	12,697	14,441	14,275	13,004	13,267	13,644	12,915
30-39	14,724	11,459	9,611	12,425	12,266	11,007	11,272	11,649
40-49	13,724	14,803	13,864	8,818	11,613	11,461	10,221	10,489
50-59	11,654	12,225	13,075	13,235	8,357	11,106	10,967	9,763
60-69	8,155	9,390	10,789	12,218	12,418	7,870	10,513	10,391
70-79	5,519	6,145	6,841	9,304	10,693	10,918	7,005	9,412
80 and over	3,326	3,603	4,015	5,596	8,133	10,237	11,139	8,622
Total	**88,317**	**89,733**	**90,812**	**93,029**	**94,278**	**93,304**	**91,355**	**89,934**
Persons								
0-15	15,630	14,697	13,622	13,175	14,009	13,291	12,728	12,980
16-64 (W)	59,968	61,235	61,256	59,290	54,749	55,029	55,652	53,604
65 and over (P)	12,720	13,802	15,935	20,563	25,521	24,984	22,974	23,349
Total	**88,317**	**89,733**	**90,812**	**93,029**	**94,278**	**93,304**	**91,355**	**89,934**
W/P	4.7	4.4	3.8	2.9	2.1	2.2	2.4	2.3

(1) The numbers shown are the average population during the calendar year including seasonal and transient workers.

TABLE C3: Short term migrants included in the Jersey population

Age	Number of short term migrants at March 2003		Average yearly number of short term migrants in the population	
	Male	Female	Male	Female
Under 15	50	50	50	50
15-19	250	250	140	124
20-24	850	950	700	730
25-29	700	700	630	610
30-34	350	325	315	285
35-39	190	150	160	150
40-44	125	115	105	115
45-49	50	30	20	30
50-54	20	30	5	30
55-59	15	-	5	-
Total	**2,600**	**2,600**	**2,130**	**2,124**

APPENDIX D

The Methodology and Technical Assumptions Made for the Purposes of the Financial Estimates Data

D.1 The accuracy of the review is fundamentally dependent on the data on which it is based. If the data contains material inaccuracies or omissions it could have a significant effect on the results of the review.

D.2 Data is used in three main areas:

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

D.3 The main source of data was the contribution and benefits data provided by the Employment and Social Security Department. Demographic data was supplied by the Jersey statistics unit.

Population projections

D.4 Future expenditure has been calculated on the basis of two different population projections with differing migration assumptions (using the 2001 census and recorded births, deaths and migration between March 2001 and 2003 as the starting point).

(i) Net migration of zero for all future years after March 2003.

(ii) Net immigration of 200 a year at young working ages for all future years after March 2003.

These migration assumptions refer to net migration of permanent residents only. In addition to such migration of permanent residents, it is assumed that female short-term migrants may give birth while they are resident in Jersey, with the children leaving Jersey along with the parents. Section 2 contains further details on this, and on the method and assumptions used in the population projections.

Contribution income

D.5 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 categories to the projected numbers in the population. These proportions were derived from statistics of the numbers contributing in the past. The analysis was made on the basis of the average position throughout the year, and thus allows for the average number of seasonal workers.

D.6 The analysis showed that from 1993 to 1997 there was been a gradual increase in the proportion of males in the population paying Class 1 contributions, for most age groups. Since 1997, the proportions have levelled out. We have therefore assumed that the gradual increase observed since 1993 is at least partly related to short-term economic conditions, rather than being evidence of a structural shift in the workforce. We have used the average proportions over the period from 1994 to 2003 as the basis for the future proportions of the population paying Class 1 contributions. The proportion of males paying Class 2 contributions has beer decreasing gradually since 1993. The future proportions of the population paying Class 2 contributions were also based on the average proportions over the period from 1999 to 2003. This gives weight to the recent data but assumes that the trend will cease.

D.7 The proportion of females in the population paying Class 1 contributions has been steady in the recent past. Consistent with the approach for males, we have used the average proportions over the last ten years as the basis for the future proportions of the population paying Class 1 contributions.

D.8 The proportion of the female population who are married women optants has been falling in the recent past, and the option has been removed for women who married after 1st April 2001. For existing optants we have assumed that the proportions will remain the same as each cohort ages up to age 50-54. After that we have assumed that the proportion for each cohort will decline at the same rate as in recent years. The number of optants has been subtracted from the total number of female Class 1 contributors less the assumed proportion of single female exempt contributors to obtain the number of full contributors.

D.9 For self-employed females there is insufficient data to observe any trends. Thus we have assumed that the age-specific proportions of self-employed females contributing would remain constant at their average levels over the past ten years.

D.10 Future contribution income was projected by combining the future numbers of contributors, estimated in line with the methods described above, with age and contribution class specific earnings distributions from recent contributions data. Allowance was made for the effects of contribution limits.

Old Age Pension

D.11 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. These factors represent both the number of residents and non-residents over pension age who will be entitled to, and who will claim, an old age pension, and also the average proportion of the standard rate of benefit which will be paid. For females, separate factors are applied in respect of females claiming an old age pension on the basis of their husband's contribution record, females claiming an old age pension on the basis of their own contribution record, and widows claiming an old age pension on the basis of their deceased husband's contribution record.

D.12 For males, we have assumed that the pension cost will rise to the equivalent of 105% of the cost of paying pensions at the full rate to Jersey residents alone. This assumption is higher than the current figure of around 90%. The current level of expenditure is less than the amount that may be expected if everyone who is entitled to a pension were to claim one. It has therefore been assumed that between 2003 and 2033 there is a gradual increase each year in the likelihood of claims of old age pensions from non-residents. This increase, together with the estimated effects of the legislative changes to contribution conditions and increased provision for contribution credits, results in an increase in the pension cost per person in the population to 105%. Additional allowance is made for benefit increases in respect of dependants, principally at ages 65-69. This addition is only paid in respect of pre-April 2001 marriages so the proportion eligible to receive it is reduced in the future accordingly. The effects of the early retirement option on those under 65 are also allowed for.

D.13 For females, we have assumed that the ultimate pension cost per person in the population, as a proportion of the standard rate of benefit, will be slightly above that for males, reflecting the fact that females can be entitled to an old age pension from their own, or from their husband's or deceased husband's, contribution records. The projected future costs were allocated between females who receive pensions based on their own contribution record, those who receive pensions based on their husband's contribution record and those who receive pensions based on their deceased husband's contribution record. This was done on the basis of the current position, while also taking into account expected future changes that may result, for example, from the abolition of the married women's option and the removal of pensions paid on a husband's record. The appropriate standard rates of benefit were then applied in each case. As with males, the effects of the early retirement option were allowed for.

Survivor's benefit

D.14 Age specific future awards of survivor's benefit were projected by adjusting the average number of awards over the past 8 years in line with changes in the projected number of deaths of married people (considering deaths of males for benefits to widows and vice versa) from the population projection. The proportion of the population who are married was assumed to vary in line with changes projected for England and Wales. The number of beneficiaries in future years was obtained by projecting forward the current beneficiaries

along with the estimated future awards, using rates of termination of benefit derived from recent data. Allowance was made for the cessation of widowed father's allowance and the extension of benefits to widowers. For awards of survivor's benefit to widowers, award and termination rates were estimated with reference to recent experience for widowed father's allowance and current parameters for widow's benefit, making suitable adjustments where necessary.

D.15 The projected costs of widow's benefit, widowed father's allowance and survivor's benefit were obtained by multiplying the projected number of beneficiaries by the full benefit rate, and by a factor reflecting the average proportion of the full benefit rate which is paid. This factor was based on the average proportion of benefit paid from recent data. Allowance was made for survivor's allowance being paid at a higher rate than survivor's pension.

Incapacity benefits

D.16 Expenditure on short-term incapacity allowance, sickness benefit and injury benefit were projected by considering age and sex specific numbers of days of benefit paid per contributor since 1994. The number of days of benefit paid per contributor has been reasonably stable, and it was assumed that the future level will be equal to the average since 1994. The number of days of benefit paid in future years was obtained by multiplying these factors by the projected number of contributors.

D.17 The projected future number of days of benefit paid, calculated as described above, was multiplied by the full benefit rate and by a factor reflecting the average proportion of the full benefit rate which is paid, in order to give the projected cost on these benefits. Allowance was made for dependants' increases, based on the average proportions of beneficiaries entitled to such increases from recent data. Awards from October 2004 onwards were assumed to receive short term incapacity allowance, with no changes to the numbers of days of benefit paid or the average amounts paid but with reduced proportions receiving a dependant's increase in line with the changes to the eligibility criteria for increases.

D.18 Age and sex specific future awards of invalidity benefit and disablement benefit were projected by adjusting the average number of awards in the recent past in line with changes in the future number of contributors. The number of beneficiaries in future years was obtained by projecting forward the current beneficiaries along with the estimated future awards, using rates of termination of benefit derived from recent data.

D.19 The projected costs of invalidity benefit and disablement benefit were obtained by multiplying the projected number of beneficiaries by the full benefit rate, and by a factor reflecting the average proportion of the full benefit rate which is paid. This factor was based on the average proportion of benefit paid in recent data. Allowance was made for dependants' increases, based on the average proportions of beneficiaries entitled to such increases from recent data. For disablement benefit, the cost of benefits paid in a lump sum form, where the degree of disability is 15% or below, was projected separately.

D.20 All awards from October 2004 that would have previously been entitled to disablement benefit were assumed to be awarded long term incapacity allowance after October 2004. 70% of awards that would have been entitled to invalidity benefit were assumed to be entitled to long term incapacity allowance, with the remainder being entitled to incapacity pension. For the cases which will receive long term incapacity allowance, the average rate of benefit was reduced by 25% to reflect the fact that the benefit paid for long term incapacity allowance reflects the degree of disability. For the cases receiving incapacity pension, the average rate of benefit was reduced as it is based on a contributor's LACF. Data from awards of survivor's benefits were used to set this assumption. The proportion eligible for a dependant's increase was also reduced. These assumptions should be reviewed following receipt of data on these benefits.

Maternity benefits

D.21 The cost of maternity allowance per birth, as a multiple of the benefit rate, has fluctuated around a constant since 1993-94. The projected cost of maternity allowance was therefore calculated by multiplying the average cost per birth, as a multiple of the benefit rate, since 1993-94 by the full benefit rate and by the

projected number of births from the population projection. For maternity grants, the average size of grant and the ratio of grants to births have been reasonably constant since 1995-96. The basis used for future years for each of these factors was the average of the experience since 1995-96.

Death Grant

D.22 The cost of death grants per death, as a proportion of the full benefit rate, has fluctuated around a constant rate since 1996-97 although it has fallen over the last two years. Thus, the future expenditure on death grants was calculated by multiplying the average cost per death, as a proportion of the full benefit rate, since 1996-97 by the full benefit rate and by the projected number of deaths from the population projection.

Social Assurance Pensions

D.23 Those receiving Social Assurance Pensions are a closed group, and the level of expenditure on these pensions is relatively low compared with other expenditure. Therefore, the future costs were projected by simply running off the current expenditure, at a similar rate to that assumed at the last review.

Administration and general expenses

D.24 Costs of administration were found to be strongly correlated to the level of benefit expenditure over the period from 1983 to 2003. We have assumed that administration costs will increase in future in line with total benefit expenditure.

Economic assumptions and fund projections

D.25 The return on the fund is assumed to be a percentage of the fund at the start of the year, allowing for the net cashflow into the fund.

D.26 The total return on the fund net of associated expenses is assumed to be 2% above earnings increases. Although nominal investment returns have been volatile, in the U.K., returns net of earnings increases have tended to be more stable and a return of 2% is a little lower than the average annual rate of return which has been experienced by the scheme since 1992.

D.27 Current real yields on U.K. Government index-linked gilts, which may be considered as the lowest risk asset for the scheme, are around 2%. If U.K. inflation were 2.5%, then the nominal return on index-linked gilts would therefore be about 4.5%, before expenses. Assuming Jersey inflation is also 2.5% and Jersey real earnings growth of 1%, the assumption of a return of 2% over earnings increases implies that the assumed nominal investment returns would be about 5.6%, which is higher than the return on index-linked gilts. If Jersey inflation or real earnings growth were higher, then the assumed nominal investment return would also be higher.

D.28 As discussed in paragraph 4.6, assumptions for inflation and real earnings growth are not required for the review. These figures have been chosen to illustrate the effects of the investment return assumed in the review.

D.29 The social security funds invest in a diversified portfolio of assets of which 83% were equities at the review date. This proportion is higher than the allocation over the previous ten years, whereas many private sector U.K. pension funds have been reducing their exposure to equities recently. However, social security funds are not necessarily subject to all the same considerations as private pension funds. In the long-term, equities may be expected to produce a higher return than index-linked bonds, although returns are expected to be more volatile. The committee should consider the effect on the scheme if equities were to give poor returns over the coming years.

APPENDIX E:

Estimated Expenditure

TABLE E1: The estimated future expenditure on benefits and administration assuming net zero future migration

£ thousand 2003 earnings terms	2003	2008	2013	2023	2033	2043	2053	2063
Old age pension	**87,930**	**95,121**	**109,750**	**143,471**	**184,754**	**181,044**	**160,063**	**150,374**
Widow's benefit	2,784	1,552	743	135	15	0	0	0
Widowed father's allowance	32	9	3	0	0	0	0	0
Survivor's benefit	1,065	2,320	2,805	2,749	1,840	1,524	1,484	1,232
Total survivors	**3,881**	**3,881**	**3,551**	**2,883**	**1,855**	**1,524**	**1,484**	**1,232**
Sickness benefit	10,869	0	0	0	0	0	0	0
Invalidity benefit	16,260	8,251	3,121	373	21	0	0	0
Injury benefit	1,863	0	0	0	0	0	0	0
Disablement benefit	3,432	1,961	1,360	623	229	63	9	0
Short term incapacity allowance	0	11,610	11,743	11,457	10,507	9,747	9,402	8,660
Long term incapacity allowance	0	6,212	9,774	11,922	10,617	9,669	9,794	8,836
Incapacity pension	0	1,591	2,527	3,026	2,711	2,478	2,488	2,248
Total incapacity	**32,424**	**29,623**	**28,525**	**27,401**	**24,086**	**21,958**	**21,693**	**19,744**
Maternity allowance	1,561	1,416	1,316	1,365	1,250	1,103	1,061	1,008
Maternity grant	418	370	344	357	327	288	277	264
Total maternity	**1,979**	**1,786**	**1,660**	**1,722**	**1,576**	**1,391**	**1,338**	**1,272**
Death grant	341	349	354	400	468	523	531	470
Social assurance pension	7	0	0	0	0	0	0	0
Administration	4,421	4,568	5,025	6,144	7,431	7,211	6,466	6,046
Total expenditure	**130,983**	**135,328**	**148,864**	**182,021**	**220,171**	**213,652**	**191,574**	**179,138**

(1) Figures may not sum to totals shown due to rounding.

TABLE E2: The estimated future expenditure on benefits and administration assuming net future immigration of 200 a year

£ thousand 2003 earnings terms	2003	2008	2013	2023	2033	2043	2053	2063
Old age pension	**87,930**	**95,121**	**109,750**	**143,471**	**184,754**	**181,106**	**167,498**	**169,178**
Widow's benefit	2,784	1,552	743	135	15	0	0	0
Widowed father's allowance	32	9	3	0	0	0	0	0
Survivor's benefit	1,065	2,404	2,975	2,960	2,086	1,815	1,909	1,670
Total survivors	**3,881**	**3,965**	**3,721**	**3,095**	**2,101**	**1,815**	**1,909**	**1,670**
Sickness benefit	10,869	0	0	0	0	0	0	0
Invalidity benefit	16,260	8,251	3,121	373	21	0	0	0
Injury benefit	1,863	0	0	0	0	0	0	0
Disablement benefit	3,432	1,961	1,360	623	229	63	9	0
Short term incapacity allowance	0	11,744	12,058	12,207	11,786	11,710	11,950	11,630
Long term incapacity allowance	0	6,237	9,850	12,214	11,345	11,225	12,024	11,414
Incapacity pension	0	1,598	2,549	3,111	2,913	2,889	3,067	2,919
Total incapacity	**32,424**	**29,791**	**28,938**	**28,528**	**26,294**	**25,887**	**27,050**	**25,963**
Maternity allowance	1,561	1,445	1,419	1,588	1,509	1,416	1,462	1,450
Maternity grant	418	378	371	415	394	370	382	379
Total maternity	**1,979**	**1,823**	**1,790**	**2,004**	**1,903**	**1,786**	**1,844**	**1,829**
Death grant	341	349	355	401	471	529	544	497
Social assurance pension	7	0	0	0	0	0	0	0
Administration	4,421	4,578	5,049	6,200	7,529	7,375	6,946	6,956
Total expenditure	**130,983**	**135,628**	**149,603**	**183,699**	**223,052**	**218,498**	**205,790**	**206,093**

(1) Figures may not sum to totals shown due to rounding.

APPENDEX F:

Estimated Contribution Income

TABLE F1: The estimated future contribution income on current contribution rates assuming zero net future migration

£ thousand 2003 earnings terms	2003	2008	2013	2023	2033	2043	2053	2063
Class 1								
Primary	46,859	44,525	44,390	42,379	38,808	36,597	34,624	31,983
Secondary	52,386	49,200	48,298	44,856	40,468	37,856	35,897	33,172
States supplement	46,337	44,499	44,857	43,143	39,587	37,630	35,702	32,900
Total	**145,581**	**138,224**	**137,546**	**130,377**	**118,863**	**112,083**	**106,223**	**98,055**
Class 2								
Primary	9,183	10,461	10,381	9,448	8,065	7,760	7,473	6,799
States supplement	3,555	3,987	3,954	3,634	3,123	2,970	2,872	2,620
Total	**12,739**	**14,448**	**14,335**	**13,082**	**11,188**	**10,730**	**10,346**	**9,419**
All classes								
Primary	56,042	54,985	54,771	51,826	46,873	44,357	42,098	38,782
Secondary	52,386	49,200	48,298	44,856	40,468	37,856	35,897	33,172
States supplement	49,892	48,486	48,811	46,777	42,710	40,601	38,574	35,520
Total	**158,320**	**152,671**	**151,881**	**143,459**	**130,051**	**122,813**	**116,569**	**107,474**

(1) Figures may not sum to totals shown due to rounding.

TABLE F2: The estimated future contribution income on current contribution rates assuming net future immigration of 200 a year

£ thousand 2003 earnings terms	2003	2008	2013	2023	2033	2043	2053	2063
Class 1								
Primary	46,859	45,479	46,428	46,360	44,830	44,976	44,867	43,839
Secondary	52,386	50,375	50,568	49,033	46,658	46,446	46,462	45,393
States supplement	46,337	45,674	47,157	47,288	45,780	46,351	46,270	45,070
Total	**145,581**	**141,528**	**144,153**	**142,681**	**137,268**	**137,773**	**137,599**	**134,302**
Class 2								
Primary	9,183	10,488	10,454	9,777	8,882	9,198	9,310	8,998
States supplement	3,555	3,987	3,976	3,768	3,440	3,521	3,587	3,473
Total	**12,739**	**14,475**	**14,431**	**13,545**	**12,322**	**12,719**	**12,897**	**12,471**
All classes								
Primary	56,042	55,967	56,882	56,137	53,712	54,173	54,178	52,837
Secondary	52,386	50,375	50,568	49,033	46,658	46,446	46,462	45,393
States supplement	49,892	49,660	51,134	51,056	49,220	49,872	49,857	48,543
Total	**158,320**	**156,003**	**158,583**	**156,226**	**149,590**	**150,491**	**150,496**	**146,773**

(1) Figures may not sum to totals shown due to rounding.

APPENDIX G:

Estimated Investment Return

TABLE G1: The estimated future investment return assuming zero net future migration

£ thousand *2003 earnings terms*	2003	2008	2013	2023	2033	2043	2053	2063
Rate of investment return above earnings increases net of expenses								
1%	41,260	5,012	5,830	4,758				
2%	41,260	10,387	12,622	11,938	389			
3%	41,260	16,140	20,486	22,230	7,784			

TABLE G2: The estimated future investment return assuming net future immigration of 200 a year

£ thousand *2003 earnings terms*	2003	2008	2013	2023	2033	2043	2053	2063
Rate of investment return above earnings increases net of expenses								
1%	41,260	5,092	6,144	5,998	1,245			
2%	41,260	10,548	13,267	14,586	6,605			
3%	41,260	16,385	21,483	26,480	18,171			

(1) The investment return is omitted after the fund is projected to be extinguished
(2) Investment return includes both capital return and investment income
(3) The 2003 figure is based on actual investment returns, adjusted to be in average 2003 earnings terms
(4) The principal assumption is for a return of 2% above earnings growth

ANNEX

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www.gad.gov.uk

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20 April 2005

Dear Tom

Jersey Social Security Fund review as at 31 December 2003

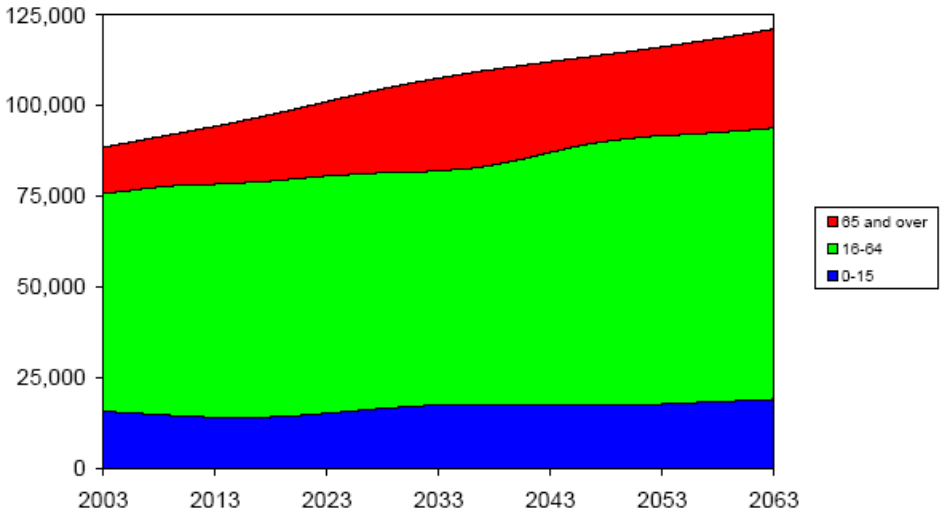
1. I refer to your letter of 15 March 2005. We have now considered the two additional questions relating to the results of the 2003 review of the social security fund.

500 a year net immigration scenario

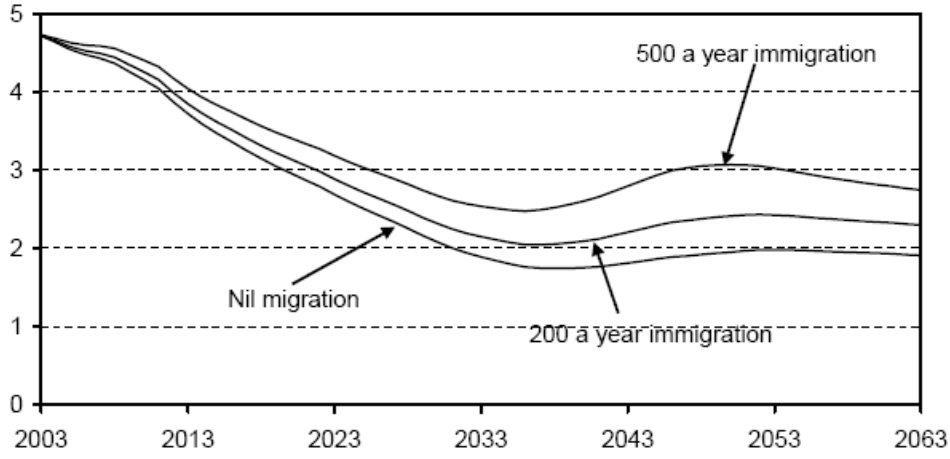
2. The first question asked what the results would be under a scenario with net immigration of 500 people a year. We carried out the population projections and fund projections again under this scenario. The profile of the immigrants was assumed to be the same as the profile used for the 200 a year immigration scenario used in the main report. Seasonal migration is assumed to occur in addition to the 500 a year immigration.

3. Under this scenario, the total number of people in Jersey is projected to steadily increase, so that by 2063 it will have reached 137% of the current level. The number over 65 will rise more slowly, from about 12,500 in 2003 to just under 26,500 in 2037, which is also projected under the other immigration scenarios. However, after falling for some years the numbers will then increase again, reaching around 27,500 by 2063. The number of people at working ages is projected to increase to about 75,000 in 2063. The fastest periods of growth are projected to be in the period to 2011 and then from 2035 to 2050. The number of persons of working age per person over pension age falls from 4.7 in 2003 to 2.5 in 2036, then rises to 3.1 in 2050 before falling again, reaching 2.7 in 2063. The effect of this pattern is illustrated below:

Projected population of Jersey assuming net immigration of 500 a year

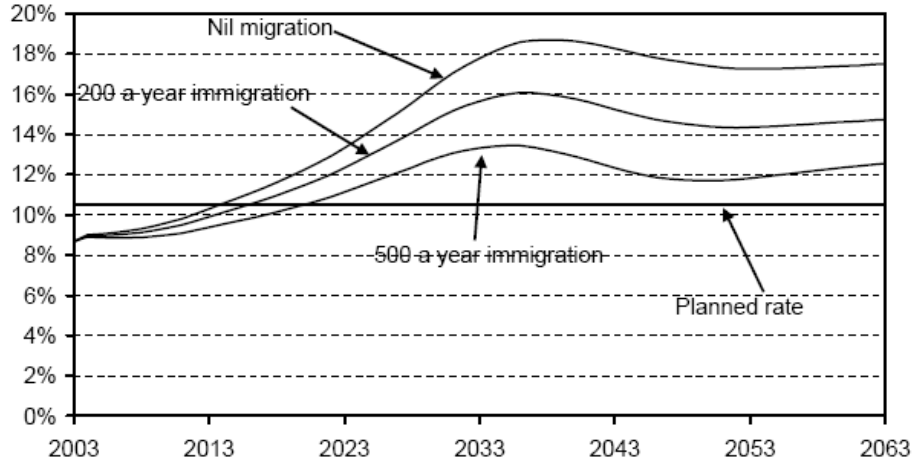


Projected number of people of working age per person over pension age



4. Under this scenario, the break even contribution rate will not rise above the current contribution rate of 10.5% until 2020. It peaks in 2035 at 13.5%, and then reduces to 12.6% by 2063.

Projected break-even contribution rates

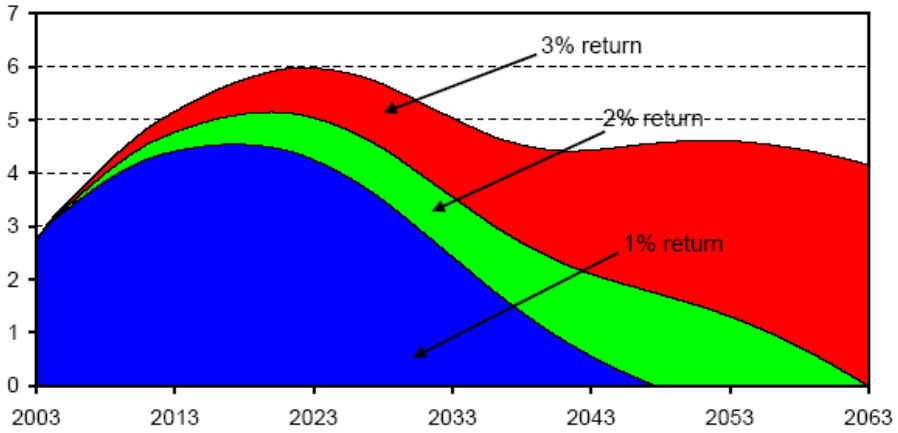


5. The projected level of the Funds, as a multiple of annual expenditure would grow to a maximum of 5.1 in 2020. The fund would then fall and become extinguished in 2063. After this point, it would be necessary to increase contribution rates to at least the break-even rate of 12.6%.

6. The principal projection assumes that investment returns, net of associated expenses, will be 2% a year higher than earnings growth. The report also considers the effect on the funds if the rate of return were different. If the rate of return were 1% higher from 2004 compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 6.0 in 2022, if the current contribution rates were to be paid. Thereafter, the balance would fall as a multiple of annual expenditure, reaching 4.1 in 2063. If the rate of return were 1% per annum lower compared with the principal results, the projected balance in the Funds as a multiple of annual expenditure would reach a maximum of 4.5 in 2017, after which it would fall until the funds are extinguished in 2048.

7. The projected balance of the funds is shown graphically below:

Projected balance as multiple of expenditure for different investment returns with net immigration of 500 per year



Effects of actual 2004 investment returns

8. The second question asked how the actual investment returns in 2004 would affect the results of the review.

9. At 31 December 2003, the total value of assets in the Social Security Fund and the Social Security (Reserve) Fund was £399 million. You have provided me with the draft accounts for 2004. These show that at 31 December 2004 the assets of the Social Security Fund were £45 million and those of the Social Security (Reserve) Fund were £407 million, giving a total of £452 million. The actual contribution income was £161 million and actual expenditure was £143 million.

10. The actual 2004 experience can be compared with the projections in the 2003 review. The 2004 figures need to be converted into 2003 earnings terms to be comparable. The earnings index for the year to June 2005 is not yet available so I have assumed that the increase from June to December 2004 was 2.0%. This compares with the increase over the year to June 2004 which was 3.3%.

11. The market value of the combined funds as a multiple of annual expenditure was 3.0 in 2004. This is a small deterioration in this measure in comparison to the projection in the 2003 review which was 3.1.

12. The reasons for this can be split into the investment return, contribution income and expenditure. The investment return on the combined social security funds was 8.5% gross, or 4.6% above assumed earnings increases. This is higher than the 2% assumed for the central projection. However, in 2003 earnings terms, the contributions received were lower than projected, and expenditure was higher than projected. The net effect is the small deterioration in the Funds' situation.

13. The future level of the Funds can also be projected, based on the actual 2004 experience. Contributions, benefits and the rate of investment return after 2004 are assumed to be the same as projected in the 2003 review. Since the actual fund at 31 December 2004 was higher than projected, the new projected investment returns are higher than previously projected, although the other cashflows are the same. Allowing for these assumptions,

the long term projections show a small improvement in the Funds' situation compared to the 2003 review.

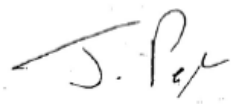
14. After allowing for the actual 2004 experience and assuming zero future net migration, if the current contribution rates were to be paid in the future, the projected balance in the Funds as a multiple of annual expenditure would grow to a maximum of 4.3 in 2013. Thereafter, the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2033. After this point, it would be necessary to increase contribution rates to at least the break-even rate of 17.8%.

15. After allowing for the actual 2004 experience and assuming future net immigration of 200 a year, the projected balance in the Funds would grow to a maximum of 4.6 times annual expenditure in 2016, if the current contribution rates were to be paid. Thereafter, the balance would fall as a multiple of annual expenditure, until the Funds are extinguished in 2038. After this point, it would be necessary to increase contribution rates to at least the break-even rate of 16.0%.

16. It should be noted that all projections have an element of uncertainty in them and are projections rather than predictions. For example, the scheme's weighting towards equities means that the investment return is potentially volatile and this increases the uncertainty inherent in the projections.

17. Please let me know if you have any comments.

Yours sincerely



James Pepler