# Update of the Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2000

1. Under legislation the Government Actuary is required to carry out a review of the finances of the National Insurance Fund of Great Britain every five years. This is known as the Quinquennial Review (QR) and its main purpose is to estimate the contribution rates required to be paid to the National Insurance Fund in future years in order to meet expenditure on a pay-as-you-go basis. The report on the latest such review was published in October 2003 (Cm 6008) and this paper updates the results in that QR taking into account additional information that has since become available.

2. A key input into any review of the National Insurance Fund is the projection of the population. Such projections are prepared regularly, also by the Government Actuary's Department. The results of the latest QR were based on the population projections released on 1 November 2002, which made allowance for the initial results of the 2001 census. However, the Office for National Statistics published revised estimates of the 2001 population in September 2003 and these were further revised in July 2004. In the light of these revisions the Government Actuary's Department issued updated population projections on 18 December 2003 and 30 September 2004.

3. Since the population projections are such an important element of the review of the National Insurance Fund, it is useful to consider how the results of last year's QR would have changed if they had taken into account the latest population projections. The results on this basis are described below. These new results also take into account other more recent data where this has become available since carrying out the QR.

4. The QR and this update consider projections of future income and expenditure up to the year 2060/61. Projections over such long time periods are subject to considerable uncertainty. It is necessary to bear in mind how the results of the projections would change if future experience differed from the assumptions used. This was considered in Section 8 of the report on the QR. The Government Actuary's Department intends to publish additional results early next year to show how the results set out below would vary if different assumptions were made about the future.

5. For further background on the QR, including a description of the assumptions adopted and a summary of the benefit and contribution rules, the reader should look at the report published last year. That report is available from our website at www.gad.gov.uk.

### *Demographic background*

6. A projection of the future population of Great Britain subdivided by age and sex is a vital input to the review of the National Insurance Fund. The results in this paper have been based on the projections published by the Government Actuary's Department on 30 September 2004. The projected population by age band is shown in Table 1.

**Table 1: Future population of Great Britain based on the principal population projection**

| | Projected population (millions) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2003 | 2010 | 2020 | 2030 | 2040 | 2050 | 2060 |
| Children (0-15) | 11.32 | 10.80 | 10.80 | 10.92 | 10.67 | 10.59 | 10.61 |
| Working age (16-SPA)[1] | 35.78 | 36.71 | 38.80 | 38.21 | 37.71 | 37.86 | 37.16 |
| Pension age (SPA+) | 10.74 | 11.91 | 12.19 | 14.60 | 16.29 | 16.54 | 17.15 |
| Total | 57.85 | 59.42 | 61.79 | 63.72 | 64.66 | 64.99 | 64.92 |
| Pensioner support ratio | 3.32 | 3.08 | 3.18 | 2.62 | 2.31 | 2.29 | 2.17 |

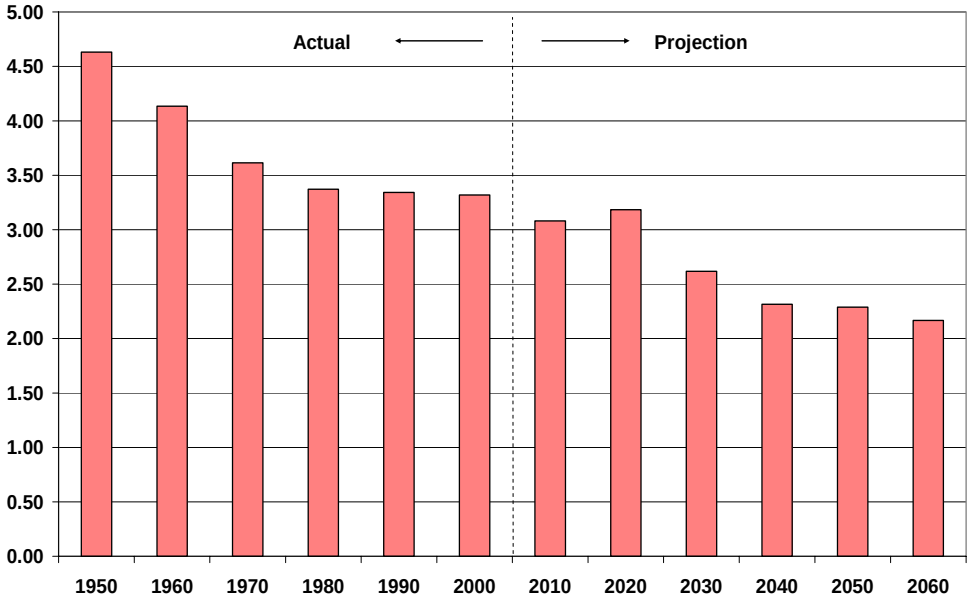
7. This table shows that the number of people over pension age is projected to increase by 60%, from 10.7 million in 2003 to a little over 17 million in 2060, while the number of people of working ages is projected to increase much more modestly. This is largely a result of the current age structure of the population, with there being many more people now at each age in their thirties and early forties than there are at each age under age 30.

8. The pensioner support ratio (the ratio of the number of people at working ages to those over pension age) is projected to fall from 3.3 in 2003 to 2.2 in 2060. This ratio is important because, under the pay-as-you-go principle, the benefits for those over pension age generally need to be financed by contributions from those of working ages.

9. A graphical representation of the pensioner support ratio is given in Figure 1. In order to set the future trend in historical context, the chart includes the equivalent figures back to 1950. From this it can be seen that the future projected fall in the ratio is the continuation of a trend that has been happening for some time.

[1] SPA is State pension age: 65 for men, and 60 up to 2010, rising to 65 by 2020, for women.

**Figure 1: Pensioner support ratio (i.e. number of people at working ages per person over pension age) based on the principal population projection**




10. When considering the financial prospects for the National Insurance Fund, it is necessary to take into account the proportion of the working age population who are expected to be contributors, and the proportion of the elderly who will be in receipt of pensions, including allowance for those pensions paid to people overseas. Therefore, the ratio of pensioners to contributors for the National Insurance Fund will not equal the pensioner support ratio shown in Table 1, but it is expected to follow a similar trend.

11. The above population projections can be compared with those underlying the QR published in October 2003 (see Section 3 of the report Cm 6008). The latest projections show a higher population at both working and pensionable ages. However, the increase in projected pensioner numbers is much larger than that for people of working ages. Overall this leads to a reduction in the pensioner support ratio, particularly in the longer-term. For example, in 2060, there were previously projected to be just under 2.5 people of working age for each pensioner, but under the latest projections that figure has fallen to stand at under 2.2. Other things being equal, this will mean that the required contribution rates shown in this update will be higher than those in the QR.

***Assumptions***

12. Apart from the population projections, the method and assumptions adopted for this update are the same as those used for the QR published last year, except that where new data has become available this has been taken into account. The following paragraphs outline some of the more important points about the assumptions, but the reader should refer to the report on the QR for further details.

13. The projections have been carried out on two bases: price uprating and earnings uprating. Under price uprating, all benefit rates and earnings limits

(except the Low Earnings Threshold, LET) are assumed to increase in line with the increase in the Retail Prices Index. The LET is assumed to grow in line with earnings, in accordance with legislation.

14. Under earnings uprating all benefit rates (apart from any SERPS/State Second Pension that is in payment) and earnings limits are assumed to rise in line with the rise in average earnings. SERPS and State Second Pensions that are in payment are assumed to increase in line with prices only, which has always been the practice since SERPS was introduced in 1978.

15. Allowance has been made for the expected benefit rates and earnings limits from April 2005, although these are yet to be finalised in legislation.

16. Current Government policy is to increase the basic retirement pension in line with prices, subject to a minimum increase of 2.5% each year. Provision for this minimum increase has not been incorporated into legislation and therefore the results shown below do not take it into account. To the extent that this underpin bites, the costs of the basic pension will be higher than projected below. The potential financial impact of the underpin was considered in Section 6 of the report on the QR.

17. When considering the price uprating scenario, the assumption regarding the rate of earnings growth in excess of prices (real earnings growth) is critical. This is because contribution income grows broadly in line with earnings (although the link to earnings will become weaker as increasing numbers of contributors have earnings above the Upper Earnings Limit). In contrast, benefit expenditure would only grow in line with prices (other things being equal). The higher the assumed rate of real earnings growth assumed in the review, the lower will be the contribution rates it shows. In view of the importance of the assumption, the results include two sets of figures: one assuming real earnings growth will average 1.5% per annum and another assuming 2% per annum.

18. New data has become available this year on the numbers of people who are contracted-out of the additional earnings-related part of the State retirement pension. This was published in March 2004[2]. This has allowed an update of the assumptions about the proportion of employees that are contracted-out. This data showed that fewer employees were contracted-out than had previously been estimated and an appropriate adjustment has therefore been made to the calculations to allow for this. For the purpose of assessing the assumed numbers that are contracted-out after 2001, the same broad approach has been adopted as for the QR (see paragraph 4.15 of that report). In particular, it is still assumed that proportions contracted-out through salary-related occupational pension schemes will fall by 25% and there will be a fall of 50% in contracting out through money purchase occupational pension schemes.

19. A summary of the numbers of employee jobs that are assumed to be contracted-out is shown in the following table, together with the projected total numbers of employees for comparison.

[2] See "Second Tier Pension Provision 1978/79 to 2000/01" published by the Department for Work and Pensions.

**Table 2: Assumed total numbers of employee jobs (millions) that relate to contracted-out salary-related (COSR) pension schemes, contracted-out money purchase (COMP) pension schemes and appropriate personal pension (APP) schemes**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Total employee jobs | 25.7 | 26.3 | 26.8 | 26.1 | 25.9 | 25.7 | 25.3 |
| Of which: | | | | | | | |
| COSR | 7.3 | 6.9 | 6.3 | 5.7 | 5.6 | 5.6 | 5.5 |
| COMP | 0.6 | 0.6 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| APP | 3.6 | 3.5 | 3.1 | 2.3 | 2.0 | 1.9 | 1.9 |
| Percentage contracted-out | 46% | 42% | 36% | 32% | 31% | 31% | 31% |

20. This table can be compared with Table 7.2 in the report on the QR, which showed higher assumed numbers contracted-out whether through COSR, COMP or APP schemes. For example, the assumed percentage of employees that are contracted-out in 2010/11 has fallen from 48% to 42%, and in 2060-61 from 35% to 31%.

21. Updated information on the number of people contracted-out was published on 16 December 2004[3], and this contains information up to and including the year 2002/03. The Government Actuary's Department will be analysing this data and will use it to produce updated projections for the proportions of employees that are contracted-out. There is also evidence that some insurance companies are taking active steps to encourage their policyholders to cease contracting out and this will also be taken into account in the review of the proportions contracted-out.

***Projected expenditure***

22. A summary of the projected expenditure from the National Insurance Fund, including expenditure on administration costs is shown in the following four tables. Results are shown with either price or earnings uprating of benefit rates and earnings limits for contributions, and assuming real earnings growth of either 1.5% or 2% per annum. The figures are in constant 2004/05 price terms.

[3] See "Second Tier Pension Provision 1978/79 to 2002/03" published by the Department for Work and Pensions.

**Table 3: Projected expenditure from the National Insurance Fund with price uprating and 1.5% per annum real earnings growth (£ billion in 2004/05 prices)**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Retirement pension: | | | | | | | |
| - basic | 41.24 | 46.01 | 51.13 | 61.83 | 68.07 | 69.29 | 71.70 |
| - additional[4] | 7.42 | 11.33 | 16.25 | 22.81 | 29.98 | 42.07 | 59.67 |
| Incapacity Benefit | 6.78 | 6.71 | 8.22 | 8.41 | 8.23 | 8.60 | 8.31 |
| Bereavement benefits | 0.95 | 0.54 | 0.40 | 0.31 | 0.27 | 0.27 | 0.26 |
| Jobseeker's Allowance | 0.50 | 0.52 | 0.54 | 0.53 | 0.53 | 0.52 | 0.52 |
| Other benefits | 0.51 | 0.59 | 0.63 | 0.66 | 0.71 | 0.76 | 0.82 |
| Other outgo | 0.29 | 0.32 | 0.37 | 0.43 | 0.50 | 0.58 | 0.67 |
| Expenses | 1.32 | 1.44 | 1.68 | 1.95 | 2.26 | 2.62 | 3.04 |
| Total expenditure | **59.02** | **67.46** | **79.21** | **96.92** | **110.53** | **124.72** | **144.99** |

**Table 4: Projected expenditure from the National Insurance Fund with earnings uprating and 1.5% per annum real earnings growth (£ billion in 2004/05 prices)**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Retirement pension: | | | | | | | |
| - basic | 41.24 | 49.54 | 63.88 | 89.64 | 114.53 | 135.30 | 162.49 |
| - additional | 7.42 | 11.32 | 16.18 | 22.38 | 28.70 | 39.29 | 53.99 |
| Incapacity Benefit | 6.78 | 7.21 | 10.27 | 12.19 | 13.85 | 16.80 | 18.84 |
| Bereavement benefits | 0.95 | 0.57 | 0.47 | 0.41 | 0.42 | 0.47 | 0.51 |
| Jobseeker's Allowance | 0.50 | 0.56 | 0.68 | 0.77 | 0.89 | 1.02 | 1.17 |
| Other benefits | 0.51 | 0.61 | 0.68 | 0.76 | 0.85 | 0.96 | 1.08 |
| Other outgo | 0.29 | 0.32 | 0.37 | 0.43 | 0.50 | 0.58 | 0.67 |
| Expenses | 1.32 | 1.44 | 1.68 | 1.95 | 2.26 | 2.62 | 3.04 |
| Total expenditure | **59.02** | **71.57** | **94.21** | **128.52** | **161.99** | **197.04** | **241.80** |

[4] The additional retirement pension comprises the pension earned under the State Earnings-Related Pension Scheme (SERPS) between April 1978 and April 2002, and the State Second Pension that accrues from April 2002.

**Table 5: Projected expenditure from the National Insurance Fund with price uprating and 2% per annum real earnings growth (£ billion in 2004/05 prices)**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Retirement pension: | | | | | | | |
| - basic | 41.24 | 46.01 | 51.13 | 61.83 | 68.07 | 69.29 | 71.70 |
| - additional | 7.42 | 11.35 | 16.59 | 24.34 | 33.84 | 50.45 | 75.65 |
| Incapacity Benefit | 6.78 | 6.71 | 8.22 | 8.41 | 8.23 | 8.60 | 8.31 |
| Bereavement benefits | 0.95 | 0.54 | 0.40 | 0.31 | 0.28 | 0.28 | 0.27 |
| Jobseeker's Allowance | 0.50 | 0.52 | 0.54 | 0.53 | 0.53 | 0.52 | 0.52 |
| Other benefits | 0.52 | 0.60 | 0.65 | 0.71 | 0.79 | 0.89 | 1.01 |
| Other outgo | 0.29 | 0.33 | 0.40 | 0.49 | 0.60 | 0.73 | 0.89 |
| Expenses | 1.32 | 1.49 | 1.81 | 2.21 | 2.69 | 3.28 | 4.00 |
| Total expenditure | **59.02** | **67.55** | **79.75** | **98.82** | **115.02** | **134.04** | **162.34** |

**Table 6: Projected expenditure from the National Insurance Fund with earnings uprating and 2% per annum real earnings growth (£ billion in 2004/05 prices)**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Retirement pension: | | | | | | | |
| - basic | 41.24 | 50.76 | 68.75 | 101.34 | 136.00 | 168.75 | 212.87 |
| - additional | 7.42 | 11.35 | 16.50 | 23.69 | 31.89 | 46.09 | 66.60 |
| Incapacity Benefit | 6.78 | 7.39 | 11.05 | 13.78 | 16.44 | 20.96 | 24.69 |
| Bereavement benefits | 0.95 | 0.58 | 0.50 | 0.46 | 0.49 | 0.58 | 0.66 |
| Jobseeker's Allowance | 0.50 | 0.57 | 0.73 | 0.87 | 1.05 | 1.28 | 1.53 |
| Other benefits | 0.52 | 0.63 | 0.73 | 0.85 | 1.00 | 1.19 | 1.41 |
| Other outgo | 0.29 | 0.33 | 0.40 | 0.49 | 0.60 | 0.73 | 0.89 |
| Expenses | 1.32 | 1.49 | 1.81 | 2.21 | 2.69 | 3.28 | 4.00 |
| Total expenditure | **59.02** | **73.09** | **100.47** | **143.68** | **190.16** | **242.86** | **312.65** |

23. The above tables demonstrate that, considered in constant price terms, expenditure from the National Insurance Fund is projected to increase significantly over the next 60 years. This is true whether a price or an earnings uprating policy is adopted for benefits and earnings limits, although the increase is much larger for earnings uprating. This reflects the fact that, over the period, the numbers in the population over pension age are expected to increase substantially, rising from 10.7 million in 2003 to 17.2 million in 2060. The build up of entitlements to additional pension (SERPS and State Second Pension), the assumption of falling proportions that are contracted-

out and the growing pension rights of women also lead to an increase in expenditure.

24. The results in these tables may be compared with the results in the QR (see Tables 5.1 to 5.4), adjusting for the fact that the QR is in 2003/04 prices whereas the above figures are in 2004/05 prices. Expenditure is now projected to be considerably higher than in the QR. This is mainly as a result of the significantly higher number of pensioners under the latest population projections (see paragraph 7 above).

***Projected expenditure as a percentage of GDP***

25. The results in the above tables have been expressed in terms of constant prices. However, the overall resources of the economy, as measured by gross domestic product (GDP) would in broad terms increase in line with the increase in earnings and the size of the working population (assuming labour takes a constant share of GDP). Therefore, in order to gain a better understanding of how the increase in Fund expenditure relates to the resources of the economy, it is useful to express the expenditure as a percentage of projected GDP. This is illustrated in Table 7 and Table 8. In addition to showing the Fund expenditure, the tables also show the amount of the contracted-out rebates as a percentage of GDP, since these are in effect expenditure although they are, in practice, expressed as a reduction in contribution income.

**Table 7: Projected expenditure and contracted-out rebates from the National Insurance Fund as a percentage of GDP based on 1.5% per annum real earnings growth**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| | | | | ***Price uprating*** | | | |
| Expenditure | 5.2% | 5.3% | 5.3% | 5.7% | 5.6% | 5.5% | 5.6% |
| Rebates | 0.9% | 0.8% | 0.6% | 0.5% | 0.5% | 0.4% | 0.4% |
| Total | **6.1%** | **6.1%** | **5.9%** | **6.2%** | **6.1%** | **6.0%** | **6.0%** |
| | | | | ***Earnings uprating*** | | | |
| Expenditure | 5.2% | 5.6% | 6.3% | 7.5% | 8.3% | 8.7% | 9.4% |
| Rebates | 0.9% | 0.8% | 0.7% | 0.6% | 0.5% | 0.5% | 0.5% |
| Total | **6.1%** | **6.4%** | **6.9%** | **8.1%** | **8.8%** | **9.3%** | **9.9%** |

**Table 8: Projected expenditure and contracted-out rebates from the National Insurance Fund as a percentage of GDP based on 2% per annum real earnings growth**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| | | | | ***Price uprating*** | | | |
| Expenditure | 5.2% | 5.1% | 4.9% | 5.1% | 4.9% | 4.7% | 4.8% |
| Rebates | 0.9% | 0.8% | 0.6% | 0.5% | 0.4% | 0.4% | 0.4% |
| Total | **6.1%** | **5.9%** | **5.5%** | **5.6%** | **5.3%** | **5.1%** | **5.1%** |
| | | | | ***Earnings uprating*** | | | |
| Expenditure | 5.2% | 5.6% | 6.1% | 7.4% | 8.1% | 8.5% | 9.2% |
| Rebates | 0.9% | 0.8% | 0.6% | 0.6% | 0.5% | 0.5% | 0.5% |
| Total | **6.1%** | **6.3%** | **6.8%** | **7.9%** | **8.6%** | **9.1%** | **9.7%** |

26. The first table shows that, under price uprating, expenditure, excluding that on rebates, will increase as a percentage of GDP over the period up to 2060, based on the assumption of 1.5% per annum real earnings growth. In the second table, with real earnings growth assumed to average 2% per annum, expenditure is projected to fall as a percentage of GDP. Factors such as the rise in the number of pensioners per contributor, the maturing of entitlements to additional pension (both SERPS and State Second Pension) and the larger pensions earned by women, lead to a rise in expenditure. However, this is offset by the reduction in benefit levels (which increase in line with prices) relative to earnings (and therefore GDP), and this offsetting effect is larger where 2% per annum real earnings growth is assumed.

27. In contrast, with earnings uprating, expenditure increases strongly as a percentage of GDP because there is no reduction in benefit levels relative to earnings.

28. Contracted-out rebates are projected to fall as a percentage of GDP. This reflects the assumption of a lower incidence of contracting out in future, together with the fact that spending on rebates is less subject to population ageing because they are paid while the individual is employed rather than a pensioner. A further cause of the reduced expenditure on rebates (as a percentage of GDP) is that, under price uprating, the band of earnings (between the Lower Earnings Limit, LEL, and the Upper Earnings Limit, UEL) on which rebates are calculated, reduces relative to earnings (and GDP). With earnings uprating, the fall in rebates as a percentage of GDP is less pronounced since the LEL and UEL are assumed to rise in line with earnings rather than prices.

29. Overall, under price uprating, the Fund expenditure and the contracted-out rebates, as a percentage of GDP, remain broadly stable with 1.5% per annum real earnings growth, or fall with 2% per annum real earnings growth. In contrast, there is a substantial rise under earnings uprating. These results should be seen in the context of significant increases in expenditure on social security benefits as a percentage of GDP over the last 50 years.

30. The figures in the above tables can be compared with those shown in the QR (Tables 5.5 and 5.6). Expenditure in the longer term is now projected to be a higher percentage of GDP than it was in the QR. For example, with price uprating and 2% per annum real earnings growth, expenditure in 2060/61 is now projected to be 4.8% of GDP, compared with 4.2% in the QR. The main reason for this is the higher number of pensioners implied by the latest population projections. Contracted-out rebates are, by contrast, projected to be broadly in line with those shown in the QR.

31. It is important to recognise that pensioners receive a number of other State benefits that are not paid from the National Insurance Fund and which are not therefore included in the figures shown in this paper. These benefits include items such as Pension Credit, Housing Benefit and Winter Fuel Payments. In order to gain a full understanding of the proportion of national resources that are spent on pensioner benefits, it is important to take account of the benefits paid outside the National Insurance Fund. A broad analysis of this was included in the report on the latest QR (paragraphs 5.14 to 5.19).

### *Projected contribution rates*

32. The National Insurance Fund is financed on the pay-as–you-go principle, such that the contributions paid in a year are broadly sufficient to meet expenditure in that year. The projected pay-as-you-go contribution rates to the Fund needed to match income and expenditure are summarised in Table 9 and Table 10, and graphically in Figure 2 and Figure 3. The contribution rates shown are the joint (employer and employee) Class 1 rates payable on earnings between the earnings threshold and the UEL for the employee and on all earnings above the earnings threshold for the employer[5]. They exclude the contributions allocated to the National Health Service. The existing balance of the Fund and any investment return it earns are ignored.

33. The contribution rates shown in Table 9 and Table 10 are those applicable before deduction of the rebate for employees who are contracted-out of the State Second Pension. The actual joint Class 1 contribution rate for 2004/05, excluding the NHS share, is 19.85%.

**Table 9: Projected joint (employer and employee) Class 1 pay-as-you-go contribution rate required to balance income and expenditure in the year, excluding the contributions allocated to the NHS, based on real earnings growth of 1.5% per annum**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Uprating scenario: | | | | | | | |
| - Price | 19.3% | 19.4% | 18.6% | 19.6% | 19.4% | 19.1% | 19.7% |
| - Earnings | 19.3% | 20.6% | 22.1% | 25.9% | 28.0% | 29.4% | 31.5% |

**Table 10: Projected joint (employer and employee) Class 1 pay-as-you-go contribution rate required to balance income and expenditure in the year, excluding the contributions allocated to the NHS, based on real earnings growth of 2% per annum**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| Uprating scenario: | | | | | | | |
| - Price | 19.3% | 18.8% | 17.3% | 17.7% | 17.2% | 16.9% | 17.1% |
| - Earnings | 19.3% | 20.4% | 21.7% | 25.4% | 27.5% | 28.9% | 30.8% |

[5] Other contribution rates e.g. for the self-employed, would vary in line with the change in the joint Class 1 rate.

**Figure 2: Projected joint (employer and employee) Class 1 pay-as-you-go contribution rate required to balance income and expenditure in the year, excluding the contributions allocated to the NHS, based on real earnings growth of 1.5% per annum**

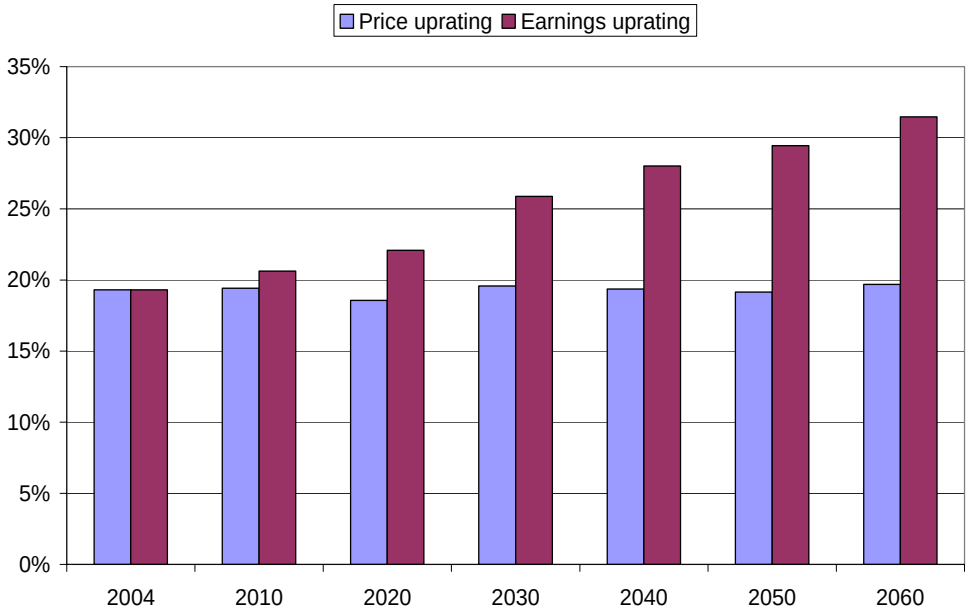
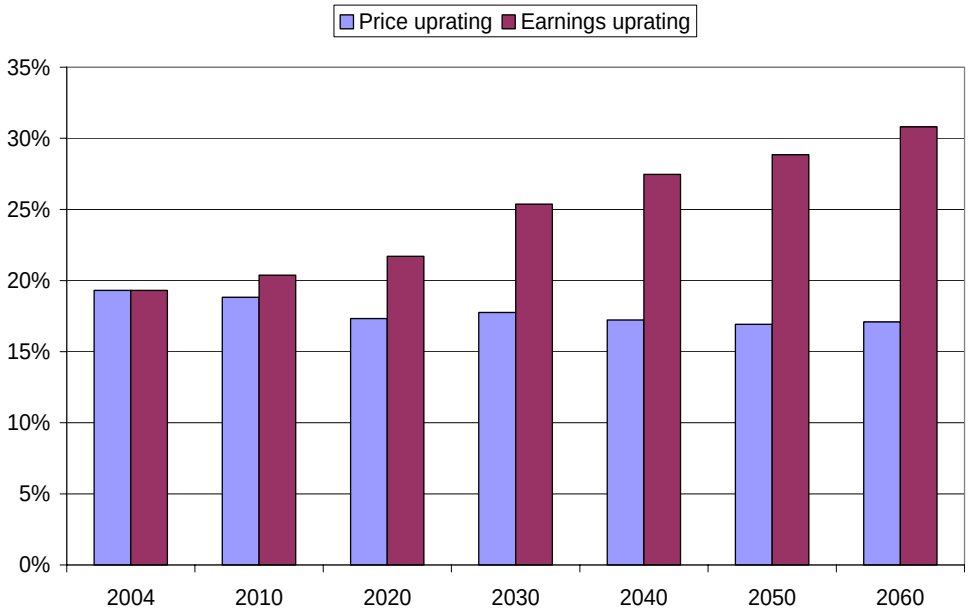



**Figure 3: Projected joint (employer and employee) Class 1 pay-as-you-go contribution rate required to balance income and expenditure in the year, excluding the contributions allocated to the NHS, based on real earnings growth of 2% per annum**



34. Table 9 shows that under price uprating the required contribution rate rises slightly from 19.3% in 2004/05 to 19.7% by 2060/61. This small rise reflects the rise in the number of pensioners per contributor together with other factors including the increasing additional pension entitlements (both SERPS and State Second Pension) and greater pension entitlements for women. These effects are however largely offset by the fall in benefit levels relative to earnings (to which contribution income is largely linked).

35. The same factors influence the progression of the contribution rate under earnings uprating in Table 9, except that in this case benefit levels do not decline relative to earnings. As a result the contribution rate rises strongly over the projection period.

36. The contribution rates shown in Table 10 based on the assumption of 2% per annum growth in real earnings are lower than those based on 1.5% per annum growth under price uprating. This is because the higher earnings growth assumption leads to a higher contribution base but has a much smaller effect on the expenditure. With earnings uprating, the contribution rate is relatively insensitive to the assumed rate of real earnings growth.

37. The projected future increase in the required contribution rate under earnings uprating can be seen in the context of contribution rates that have already increased substantially over the past 50 years. In the early 1950s, a man on average earnings and his employer were together paying about 5% of his earnings in National Insurance contributions (excluding contributions to the industrial injuries fund and those allocated to the NHS)[6]. By the 1980s this had grown to nearly 18%, although it has since fallen back to stand at about 16% in 2004/05.[7]

38. The projected contribution rates shown in the above tables and figures are higher than shown in the report on the QR (see tables 5.11 and 5.12). The main reason is again the lower pensioner support ratio, although in the earlier part of the projection period this is offset by lower expenditure on contracted-out rebates (reflecting the assumption of reduced numbers of employees that are contracted-out).

***Expenditure per pensioner***

39. Finally, it is useful to consider the average spending on retirement pensions per retirement pensioner. This is illustrated in Table 11 which shows the average expenditure on retirement pension (including basic, graduated and additional pension) per pensioner in selected years and then expresses this as a percentage of average earnings. This is based on the assumption of 2% per annum real earnings growth. For the purpose of the table, expenditure on additional pension is before making the deduction from benefits in respect of periods that are contracted-out, since the intention of contracting out is that this deduction is replaced by a broadly equivalent pension from a private pension arrangement.

[6] In addition a contribution was made from the Exchequer. For example, in 1952/53 the Exchequer contribution amounted to around 15% of the total contribution paid by the employer and employee.

[7] The pattern is broadly similar for women although the effective contribution rate was higher in the 1950s (about 8%) reflecting the fact that the contributions were at that time independent of earnings (although set at a slightly lower level for women than for men) and that average earnings for women were (and are) lower than for men.

**Table 11: Average weekly expenditure (£) on retirement pension (including basic, graduated and additional pension) per retirement pensioner expressed in 2004/05 prices and as a percentage of full-time adult weekly average earnings, based on 2% per annum real earnings growth and showing both price and earnings uprating**

| | 2004-05 | 2010-11 | 2020-21 | 2030-31 | 2040-41 | 2050-51 | 2060-61 |
|---|---|---|---|---|---|---|---|
| | | | | ***Price uprating*** | | | |
| Average pension: | | | | | | | |
| Basic | 69.32 | 69.79 | 73.19 | 73.13 | 72.41 | 72.44 | 72.30 |
| Additional | 23.51 | 32.25 | 45.85 | 56.47 | 67.22 | 82.93 | 104.99 |
| Total (A) | 92.82 | 102.04 | 119.04 | 129.60 | 139.63 | 155.36 | 177.29 |
| Average earnings (B) | 516 | 581 | 708 | 863 | 1,052 | 1,283 | 1,564 |
| (A) as % of (B) | 18% | 18% | 17% | 15% | 13% | 12% | 11% |
| | | | | ***Earnings uprating*** | | | |
| Average pension: | | | | | | | |
| Basic | 69.32 | 77.00 | 98.41 | 119.87 | 144.67 | 176.42 | 214.67 |
| Additional | 23.51 | 32.24 | 45.74 | 55.85 | 65.68 | 79.82 | 99.14 |
| Total (A) | 92.82 | 109.24 | 144.15 | 175.72 | 210.35 | 256.25 | 313.81 |
| Average earnings (B) | 516 | 581 | 708 | 863 | 1,052 | 1,283 | 1,564 |
| (A) as % of (B) | 18% | 19% | 20% | 20% | 20% | 20% | 20% |

40. This table shows that under both price and earnings uprating, the average spending on each retirement pensioner is projected to increase in constant price terms. However, the average spending on each pensioner is significantly higher under earnings uprating. This simply reflects the fact that under this approach benefit rates are increasing more than under price uprating.

41. The spending per pensioner can be expressed as a percentage of average earnings. This shows that, on average, under earnings uprating, State retirement pensions (including any contracted-out element) form an increasing proportion of average earnings. In contrast, with price uprating, because benefit rates do not keep pace with earnings, the average retirement pension falls as a percentage of average earnings, from 18% in 2004/05 to 11% in 2060/61.

42. A discussion of the distribution of retirement pensions paid to individuals, and the interaction with Pension Credit, was given in Section 9 of the report on the QR.

Government Actuary's Department
Finlaison House
15-17 Furnival Street
London
EC4A 1AB

23 December 2004