



Government Actuary's Quinquennial
Review of the National Insurance Fund
as at April 2005



GOVERNMENT **ACTUARY'S** DEPARTMENT



Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

Required by Section 166 of the Social Security Administration Act 1992
to be laid before Parliament

Presented to Parliament pursuant to 166(5) of the Social Security
Administration Act 1992 as amended by the Social Security Contributions
(Transfer of Functions, etc) Act 1999

March 2010

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Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

To
The Right Hon. Yvette Cooper, MP
Secretary of State for Work and Pensions

The Right Hon. Stephen Timms, MP
Financial Secretary to the Treasury

Madam and Sir

In accordance with the terms of section 166 of the Social Security Administration Act 1992, I have reviewed the operation, during the period 6 April 2000 to 5 April 2005, of:

- a) Parts I to VI of the Social Security Contributions and Benefits Act 1992 (except Part 1 of Schedule 8);
- b) the provisions of the Jobseekers Act 1995 relating to contribution-based jobseeker's allowance;
- c) the provisions of the Welfare Reform Act 2007 relating to contributory employment and support allowance; and
- d) the Social Security Administration Act 1992, Chapter II of Part 1 of the Social Security Act 1998 and Part II of the Social Security Contributions (Transfer of Functions etc) Act 1999, so far as they relate to a) to c) above.

My conclusions are given in the attached report.

I am, Madam and Sir,
Your obedient Servant.



Trevor Llanwarne, FIA
Government Actuary

March 2010



GOVERNMENT **ACTUARY'S** DEPARTMENT

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Table of Contents

1	Executive summary	6
2	Introduction and scope of the review	10
3	How the National Insurance Fund works	13
4	Projections on <i>principal assumptions</i>	14
5	Sensitivity of projections to assumptions	18
6	Projections on <i>variant demographic assumptions</i>	22
7	Projections on <i>variant economic assumptions</i>	30
8	Projections on <i>variant labour market assumptions</i>	36
9	Projections on <i>variant contracting-out assumptions</i>	38
10	Projections on <i>variant assumptions for expenditure on Incapacity Benefit and Employment and Support Allowance</i>	40
11	Projections showing impact of changes to income or outgo	41
12	Comparison with previous Quinquennial Review	44
13	Appendix A Data used	49
14	Appendix B Summary of benefits and contributions	50
15	Appendix C Specific benefit details	57
16	Appendix D Summary of methods and assumptions adopted	68
17	Appendix E Methods and assumptions for specific items of expenditure	79
18	Appendix F Demographic background and population projections	93
19	Appendix G Detailed results on <i>principal assumptions</i> and <i>main variant demographic assumptions</i>	99
20	Appendix H Glossary of abbreviations and terms	104
21	Appendix I List of Figures included in this review	106

1 Executive summary

This section contains a brief summary of:

- > the background to this review
- > key projections on the *principal assumptions*
- > the main conclusions emerging from this report

- 1.1 Under the Social Security Administration Act 1992 Chapter 5 (Section 166), the Government Actuary is required to review the operation of the National Insurance Scheme of Great Britain (the 'Fund') at least every five years. The present review addresses this requirement as at an effective date of 5 April 2005. It takes account of events after the effective date and contains projections for the years 2008-09 to 2070-71.
- 1.2 The main benefits paid by the Fund are on retirement, incapacity, bereavement, unemployment, maternity/paternity and sickness. It is funded by National Insurance contributions from employees, employers and the self-employed.
- 1.3 The object of this review is '*to determine the extent to which the level at which the National Insurance Fund stands from year to year may be expected in the longer term to bear a proper relation to demands in respect of payments of benefit; and for this purpose the Actuary shall take into account:*
- (a) *current rates of contributions*
 - (b) *the yield to be expected from contributions in the longer term; and*
 - (c) *such other matters as he considers to be relevant as affecting the present and future level of the Fund*.¹
- 1.4 In order to meet this legislative requirement, this review:
- > considers the impact on the Fund's position of changes in legislation, Fund experience and changes in assumptions since the previous review
 - > projects possible future levels of expenditure from the Fund
 - > projects the balance (or shortfall) in the Fund, assuming no change in National Insurance contribution rates
 - > projects the level of National Insurance contributions which would be required to maintain the Fund balance in future.
- The figures shown in this report are projections based on many demographic, economic and other assumptions.
- 1.5 Projections are first shown based on the *principal assumptions*², notably:
- > the 2006-based principal population projections for Great Britain (see chart below)
 - > up-rating of benefit rates and limits in line with current announced practice (a mixture of price and earnings up-rating)
 - > labour market assumptions based on the Labour Force Survey up to 2008-09 and HM Treasury's model of labour market participation as at 2008 (broadly 5% unemployment)

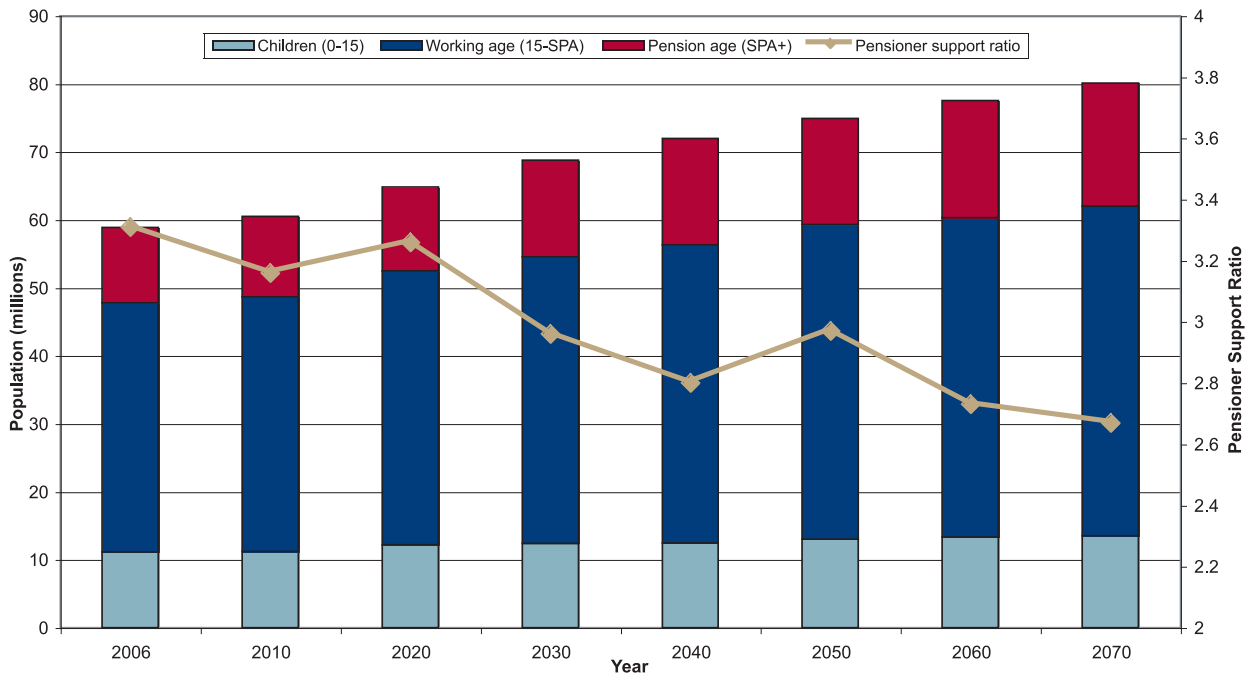
¹ Social Security Administration Act 1992, section 166(4)

² See section 16.2 for more details of the *principal assumptions*

- > assumptions about contracting-out of the State Second Pension, reflecting the ceasing of money purchase contracting-out from 2012 and a phased decline in salary-related contracting-out over the period to 2070-71
- > two real earnings growth assumptions, 1.5% pa and 2% pa.

1.6 The bar chart below summarises the ONS 2006-based principal population projections for Great Britain over the period to 2070. In this chart the population is sub-divided into children, those of working age and pensioners (above *State Pension Age*). The line on the chart shows the projected pensioner support ratio, which is the number of individuals of working age for each pensioner in the population. Broadly, a lower pensioner support ratio means that Fund benefits cost more as a percentage of the pay of the working population.

Figure 1.1 Summary of population of Great Britain from ONS 2006-based principal population projections (millions)

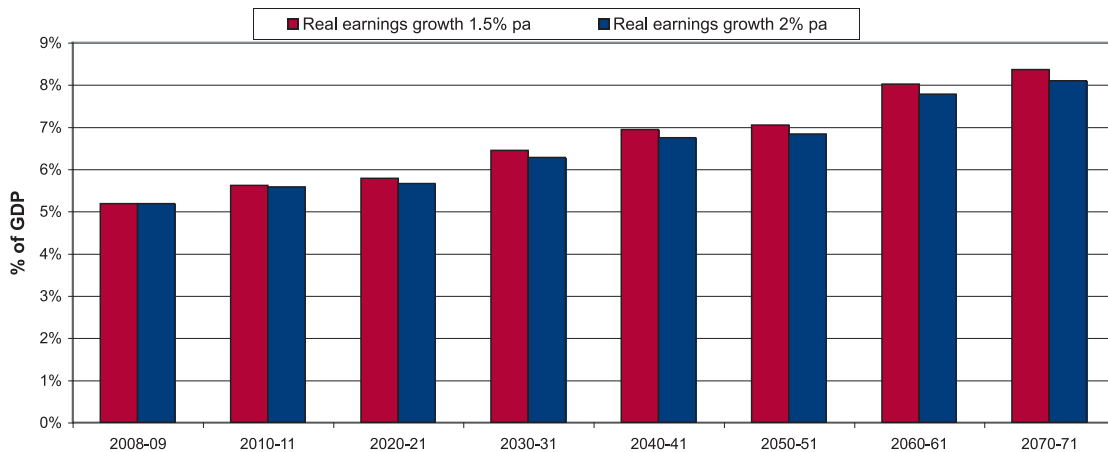


1.7 Additionally, the projections are repeated based on the following *variant assumptions* to show how varying assumptions can affect the projected progress of the Fund:

- > Demographic assumptions (population projections) – higher and lower fertility, migration and life expectancy, and combinations of these
- > Economic assumptions – up-rating of benefits and limits with earnings or prices, and real earnings growth of 1% pa or 2.5% pa
- > Unemployment at broadly 2.5% or 7.5%
- > Contracting-out of the State Second Pension ceasing in 2022
- > Expenditure on incapacity benefits rising or falling gradually by 50%
- > Contribution income 5% lower or benefit outgo 5% higher.

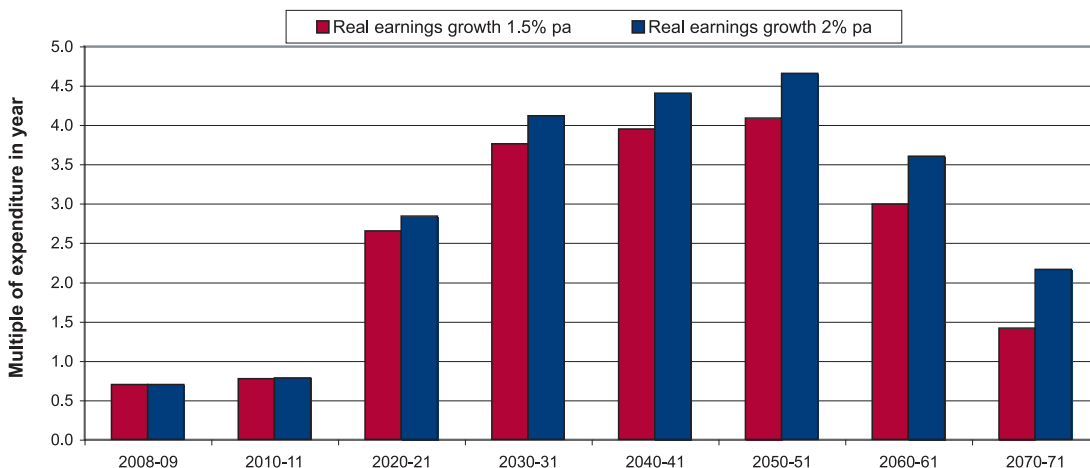
- 1.8 The charts below show key projections on the *principal assumptions*.
- 1.9 Figure 1.2 below shows the projected expenditure from the Fund on the *principal assumptions* over the period to 2070-71 as a percentage of Gross Domestic Product (GDP). For example, in 2040-41 the projected expenditure from the Fund would be 6.9% of GDP assuming real earnings growth of 1.5% pa (and 6.7% of GDP assuming real earnings growth of 2% pa).

Figure 1.2 Total projected expenditure from the Fund as % of GDP
Principal assumptions



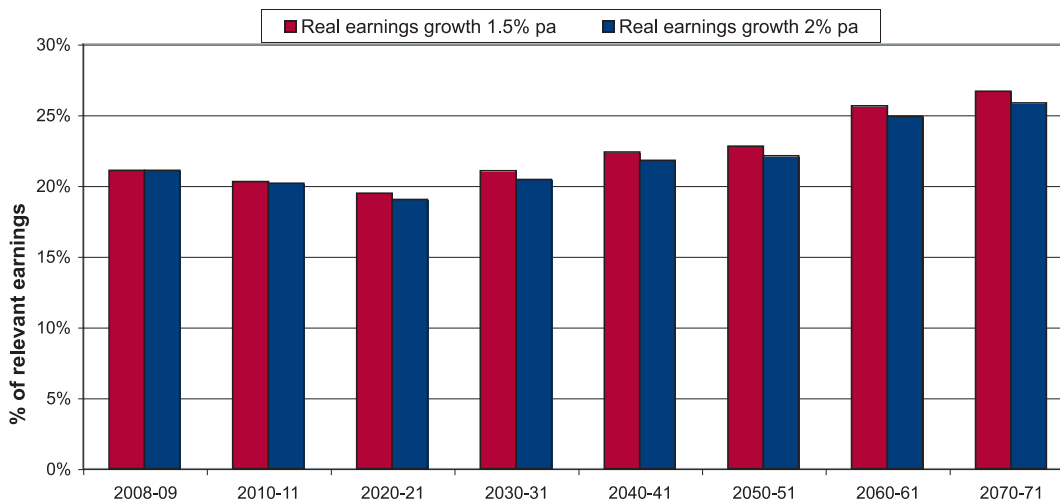
- 1.10 Figure 1.3 below shows the projected balance or shortfall in the Fund at the end of the year as a multiple of expenditure in the year, on the *principal assumptions* and assuming no change in contribution rates, over the period to 2070-71. For example, in 2040-41, the projected balance in the Fund would be 3.9 times projected expenditure assuming real earnings growth of 1.5% pa (and 4.3 times projected expenditure assuming real earnings growth of 2% pa).

Figure 1.3 Projected balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year
Principal assumptions



1.11 Figure 1.4 below shows the projected joint Class 1 National Insurance contribution rate (employee and employer) required to balance income and expenditure in the year, on the *principal assumptions*, over the period to 2070-71. For example, in 2040-41 the projected joint Class 1 contribution rate required to balance income and expenditure in the year would be 22.4% of relevant earnings ¹ assuming real earnings growth of 1.5% pa (and 21.8% of relevant earnings assuming real earnings growth of 2% pa).

Figure 1.4 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Principal assumptions



Section 1: Conclusions

On the *principal assumptions*:

- > Fund expenditure is projected to increase from around 5% of GDP in 2008-09 to around 8% of GDP in 2070-71. The main driver of this effect is the ageing of the population. If basic retirement pension were assumed to be linked to prices instead of average earnings (as was the case in the previous review), Fund expenditure would instead be projected to remain at around 5% of GDP over the projection period.
- > The joint Class 1 National Insurance contribution rate required to balance Fund expenditure is projected to decrease from around 21% of relevant earnings in 2008-09 to around 19% in 2020-21, and then increase steadily to around 26%-27% of relevant earnings in 2070-71.
- > Assuming no further changes in National Insurance contribution rates:
 - > the Fund's balance is projected to grow significantly up to around 2050, ultimately reaching about £1,000 billion (in 2009-10 price terms), principally because of the 1% increase in employee and employer contribution rates from 2011-12.
 - > after around 2050, the Fund's balance is projected to reduce as increased expenditure overtakes contribution income. The main upward pressures on expenditure are the cost of earnings linking on the basic retirement pension and the ageing of the population. However, the Fund's balance is still projected to be positive in 2070-71.

The projections are particularly sensitive to the approach used to up-rate benefit rates and earnings limits, and to the future population profile of Great Britain.

There is considerable uncertainty about the future progress of the Fund and therefore caution is needed when using the projections in this report. Users should read the main body of this report to understand the uncertainty and limitations surrounding the projections.

¹ Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

2 Introduction and scope of the review

This section:

- > sets out the legislative background and scope of the review
- > describes the contents of the review
- > explains what projected figures are shown in this report.

- 2.1 Under the Social Security Administration Act 1992 Chapter 5 (Section 166), the Government Actuary is required to review the operation of the National Insurance Scheme of Great Britain (the 'Fund') at least every five years. The object of this review is *'to determine the extent to which the level at which the National Insurance Fund stands from year to year may be expected in the longer term to bear a proper relation to demands in respect of payments of benefit; and for this purpose the Actuary shall take into account:*
- (a) *current rates of contributions*
 - (b) *the yield to be expected from contributions in the longer term; and*
 - (c) *such other matters as he considers to be relevant as affecting the present and future level of the Fund.*¹
- 2.2 In order to meet this legislative requirement, this review:
- > considers the impact on the Fund's position of changes in legislation, Fund experience and changes in assumptions since the previous review
 - > projects possible future levels of expenditure from the Fund
 - > projects the balance (or shortfall) in the Fund, assuming no change in National Insurance contribution rates
 - > projects the level of National Insurance contributions which would be required to maintain the Fund balance in future.
- 2.3 The present review addresses the legislative requirement as at an effective date of 5 April 2005. It takes account of events after the effective date and contains projections from 2008-09 to 2070-71. The previous review (as at an effective date of 5 April 2000) was published in October 2003. The next review will be carried out as at an effective date of 5 April 2010 (although the required data will not be available until some time later than this date).
- 2.4 The Department for Work and Pensions is responsible for policy on Fund benefits. HM Treasury and HM Revenue & Customs have responsibility for National Insurance contributions policy. This report is required to be laid before Parliament. These parties are expected to be the chief users of this report. It is anticipated that the projections shown in this report would be used for information and planning purposes.
- 2.5 Projections are first shown based on the *principal assumptions*², notably:
- > the 2006-based principal population projections for Great Britain
 - > up-rating of benefit rates and limits in line with current announced practice (a mixture of price and earnings up-rating)

¹ Social Security Administration Act 1992, section 166(4)

² See Section 16.2 for more details of the *principal assumptions*

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

- > labour market assumptions based on the Labour Force Survey up to 2008-09 and HM Treasury's model of labour market participation as at 2008 (broadly 5% unemployment)
 - > assumptions about contracting-out of the State Second Pension, reflecting the ceasing of money purchase contracting-out from 2012 and a phased decline in salary-related contracting-out over the period to 2071-71
 - > two real earnings growth assumptions, 1.5% pa and 2% pa.
- 2.6 Additionally, the projections are repeated based on the following *variant assumptions* to show how varying assumptions can affect the projected progress of the Fund:
- > Demographic assumptions (population projections) – higher and lower fertility, migration and life expectancy, and combinations of these
 - > Economic assumptions – up-rating of benefits and limits with earnings or prices, and real earnings growth of 1% pa or 2.5% pa
 - > Unemployment at broadly 2.5% or 7.5%
 - > Contracting-out of the State Second Pension ceasing in 2022
 - > Expenditure on incapacity benefits rising or falling gradually by 50%
 - > Contribution income 5% lower or benefit outgo 5% higher.
- 2.7 Further detailed variant projection results are available from GAD's website at the following link:
<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.
- 2.8 All figures shown are in 2009-10 price terms (ie net of Retail Prices Index inflation after 2009-10), except for the 2008-09 figures which are actual cash amounts.
- 2.9 This report complies with the 'Guidelines of Actuarial Practice for Social Security Programs' issued by the International Actuarial Association and effective from 1 January 2003.
- 2.10 A number of technical terms and abbreviations are used in this report. A glossary is provided in Appendix H.



3 How the National Insurance Fund works

This section briefly describes the history and operation of the Fund, the benefits covered and its financing.

- 3.1 The National Insurance Scheme was established on 5 July 1948 to provide unemployment benefit, sickness benefit, retirement pensions and other benefits in cases where individuals meet the contribution and other qualifying conditions.
- 3.2 Under the Social Security Administration Act 1992, benefits due under the National Insurance Scheme are payable out of the National Insurance Fund. The funds required for meeting the cost of these benefits are mainly provided from National Insurance contributions payable by employed earners, employers and others. The Social Security Contributions and Benefits Act 1992 sets out the conditions governing entitlement to most benefits and the basis for assessing liability to pay National Insurance contributions.
- 3.3 HM Revenue and Customs is responsible for collecting National Insurance contributions and recording them against individuals' contribution records (which determine entitlement to social security benefits payable from the Fund).
- 3.4 The Department for Work and Pensions (DWP) has overall responsibility for the award and payment of most benefits payable from the Fund, including those relating to retirement, sickness and contribution-based Jobseeker's Allowance. Entitlement to benefit is determined by the claimant satisfying qualifying conditions.
- 3.5 The main benefits currently covered by the Fund are as follows:
- > Retirement pension (basic and additional)
 - > Incapacity Benefit/Employment and Support Allowance
 - > Bereavement benefits
 - > Jobseeker's Allowance
 - > Guardian's Allowance
 - > Christmas bonus for pensioners
 - > Statutory Sick Pay
 - > Statutory Maternity, Adoption and Paternity Pay
 - > Maternity Allowance.
- 3.6 The Fund is financed in such a way that the bulk of contributions paid in a year are used to meet benefit expenditure in the year. Therefore, no substantial fund has been built up. However, a working balance is necessary to guard against unexpected falls in contribution income or increases in outgo, because the Fund has no borrowing powers.
- 3.7 The Treasury Grant was introduced by the Social Security Act 1993. It enables money provided by Parliament to be paid into the National Insurance Fund if the Treasury considers it expedient to do so to maintain the level of the Fund. The Treasury Grant is subject to a maximum of 17% of benefit expenditure in the year.

4 Projections on *principal assumptions*

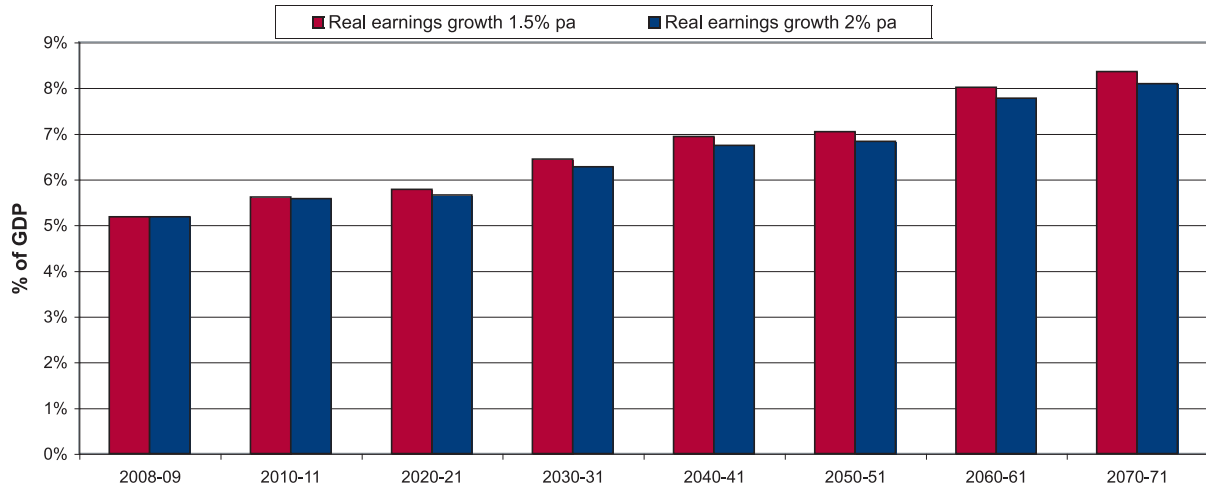
- 4.1 The projections in this section are on the *principal assumptions*, notably:
- > the 2006-based principal population projections for Great Britain
 - > up-rating of benefit rates and limits in line with current announced practice (a mixture of price and earnings up-rating)
 - > labour market assumptions based on the Labour Force Survey up to 2008-09 and HM Treasury's model of labour market participation as at 2008 (broadly 5% unemployment)
 - > assumptions about contracting-out of the State Second Pension, reflecting the ceasing of money purchase contracting-out from 2012 and a phased decline in salary-related contracting-out over the period to 2070-71
 - > two real earnings growth assumptions, 1.5% pa and 2% pa.

More details of the *principal assumptions* can be found in section 16.2.

- 4.2 The charts on the following pages illustrate the following projections over the period to 2070-71:
- > Expenditure as a percentage of GDP
 - > Balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year
 - > Joint Class 1 contribution rate to balance income and expenditure in the year.

4.3 Figure 4.1 below shows projected Fund expenditure as a percentage of GDP.

Figure 4.1 Total projected expenditure from the Fund as % of GDP
Principal assumptions



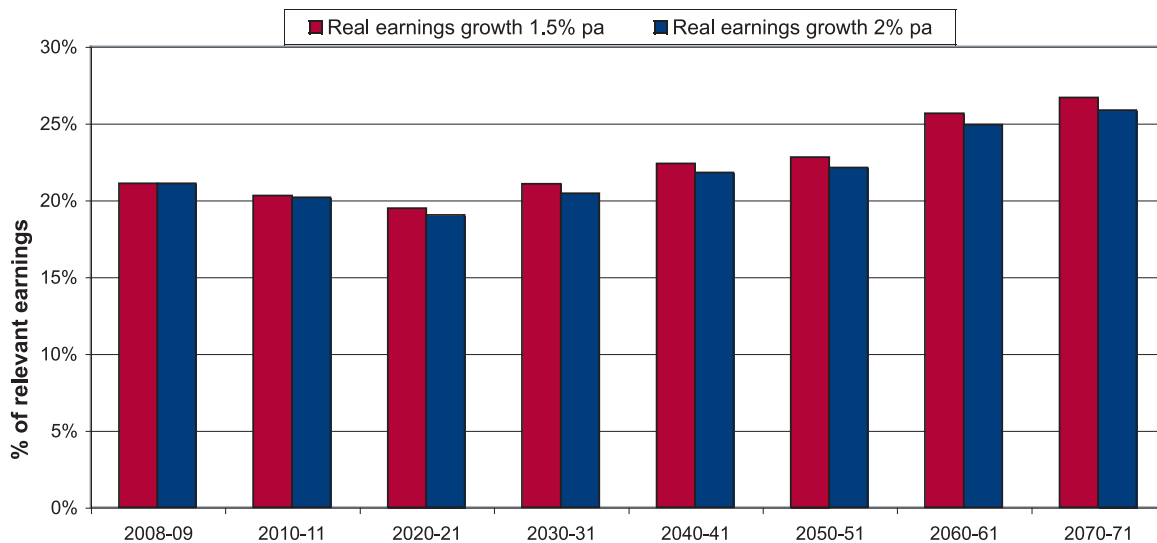
4.4 Figure 4.2 below shows the projected balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year.

Figure 4.2 Projected balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year
Principal assumptions



4.5 Figure 4.3 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year.

Figure 4.3 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Principal assumptions



4.6 The tables on the facing page show the main projection results over the period to 2070-71. A more detailed breakdown can be found in Appendix G.

Section 4: Conclusions

On the *principal assumptions*:

- > Fund expenditure is projected to increase steadily from around 5% of GDP in 2008-09 to around 8% of GDP in 2070-71. The main driver of this effect is the ageing of the population. If basic retirement pension were assumed to be linked to prices instead of average earnings (as was the case in the previous review), Fund expenditure would instead be projected to remain at around 5% of GDP over the projection period.
- > The joint Class 1 National Insurance contribution rate required to balance Fund expenditure is projected to decrease from around 21% of relevant earnings in 2008-09 to around 19% in 2020-21, and then increase steadily to around 26%-27% of relevant earnings in 2070-71.
- > Assuming no further changes in National Insurance contribution rates:
 - > The Fund's balance is projected to grow significantly up to around 2050, ultimately reaching about £1,000 billion in 2009-10 price terms, principally because of the 1% increase in employee and employer contribution rates from 2011-12.
 - > After around 2050, the Fund's balance is projected to reduce as increased expenditure overtakes contribution income. The main upward pressures on expenditure are the cost of earnings linking on the basic retirement pension and the ageing of the population. However, the Fund's balance is still projected to be positive in 2070-71.

Figure 4.4 Main results in 2009-10 price terms
Principal assumptions - 1.5% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	37.97	49.78	60.40	73.30	88.01	103.99	124.52
> Contributions from employers	42.40	49.64	69.55	85.20	103.15	123.58	146.05	174.63
Total contributions	74.45	87.62	119.32	145.59	176.45	211.59	250.05	299.16
Other income	1.11	0.85	7.77	12.87	17.23	21.62	22.39	16.75
Total income	75.56	88.46	127.09	158.46	193.68	233.21	272.44	315.90
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	71.67	96.87	123.93	143.81	183.88	225.15
> Additional State pension	11.12	13.52	19.06	27.78	40.69	58.87	92.81	122.85
> Other benefits	9.19	9.41	9.22	9.13	9.11	9.68	9.24	9.14
Total benefits	70.49	80.14	99.95	133.79	173.73	212.36	285.93	357.14
Other outgo	2.32	2.44	2.83	3.28	3.81	4.42	5.13	5.95
Total outgo	72.80	82.57	102.77	137.07	177.54	216.78	291.06	363.09
Excess/(shortfall) of income over outgo (£bn)	2.76	5.89	24.32	21.40	16.15	16.43	-18.62	-47.19
Balance in Fund at end of period (£bn)	50.63	59.65	264.52	503.14	685.10	865.88	849.38	495.56
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	20.3%	19.5%	21.1%	22.4%	22.8%	25.7%	26.7%
Total outgo as % of GDP	5.2%	5.6%	5.8%	6.4%	6.9%	7.0%	8.0%	8.4%

Figure 4.5 Main results in 2009-10 price terms
Principal assumptions - 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.61	67.10	85.30	107.56	133.50	167.91
> Contributions from employers	42.40	50.10	73.94	95.23	120.64	151.79	188.42	236.64
Total contributions	74.45	88.32	126.55	162.33	205.94	259.36	321.91	404.55
Other income	1.11	0.86	8.45	14.97	21.37	28.61	32.36	28.94
Total income	75.56	89.18	135.00	177.29	227.31	287.96	354.27	433.49
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.23	44.93	68.33	113.54	157.20
> Other benefits	9.19	9.41	9.22	9.14	9.11	9.68	9.24	9.14
Total benefits	70.49	80.15	103.29	144.50	196.72	251.98	356.46	466.88
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.58	106.26	148.12	201.14	257.36	363.01	474.87
Excess/(shortfall) of income over outgo (£bn)	2.76	6.59	28.74	29.17	26.17	30.60	-8.74	-41.38
Balance in Fund at end of period (£bn)	50.63	60.54	293.70	596.11	867.22	1,174.04	1,280.37	1,000.65
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.0%	20.5%	21.8%	22.1%	24.9%	25.8%
Total outgo as % of GDP	5.2%	5.6%	5.7%	6.3%	6.7%	6.8%	7.8%	8.1%

¹ Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

5 Sensitivity of projections to assumptions

This section:

- > explains the uncertainty, risks and sensitivity to assumptions underlying the projections
- > describes the *principal assumptions* and *variant assumptions* on which projections have been made, and their limitations
- > comments on other possible variations in Fund experience.

The projection results using *variant assumptions* follow in Sections 6 to 11.

- 5.1 The projections of this review are sensitive to a number of the assumptions made, in particular:
- > economic assumptions (up-rating of benefits and limits, and real earnings growth)
 - > labour market assumptions (economic activity; employment)
 - > contracting-out assumptions
 - > demographic assumptions (population projections).
- 5.2 The projections are also sensitive to other possible future events which are not the subject of explicit assumptions, for example climate change, pandemic disease or a future government changing the benefit structure.
- 5.3 For these reasons, there is considerable uncertainty about the future progress of the Fund. While the assumptions adopted form a reasonable basis for the review, in practice the Fund's experience, and hence its financial progress, will be different. These differences will be analysed and taken into account in subsequent reports. It is important for readers of this report not to place undue emphasis on a single set of projection results. Instead, it is appropriate to consider the effect on the Fund if actual experience differs from the *principal assumptions*.
- 5.4 The projections shown in this report are sensitive to the assumptions and other future events. For example:
- > if the pensioner support ratio falls more sharply than is assumed, the National Insurance contributions required to balance the Fund will be higher than the projections shown
 - > if Fund benefits are increased or reduced by future governments, the National Insurance contributions required to balance the Fund will be higher or lower than the projections shown.
- It is important that users of this report have regard to these sensitivities and limitations when using the projections shown.
- 5.5 The tables of projections on *variant assumptions* shown in Sections 6 to 11 illustrate the same projection results as the tables in Section 4 on the *principal assumptions*. However, for simplicity, of the three charts in Section 4, only the chart of the contribution rate to balance income and expenditure is reproduced for the *variant assumptions*.
- 5.6 The assumptions made in this review are interdependent. Therefore, when considering the effect of varying more than one assumption, it may not be appropriate simply to combine the different variant projection results shown in this report.
- 5.7 The remainder of this section explains the *variant assumptions* shown and why they have been chosen. It also comments on their limitations, and on other possible variations in experience which are not quantified in this report.

Demographic assumptions

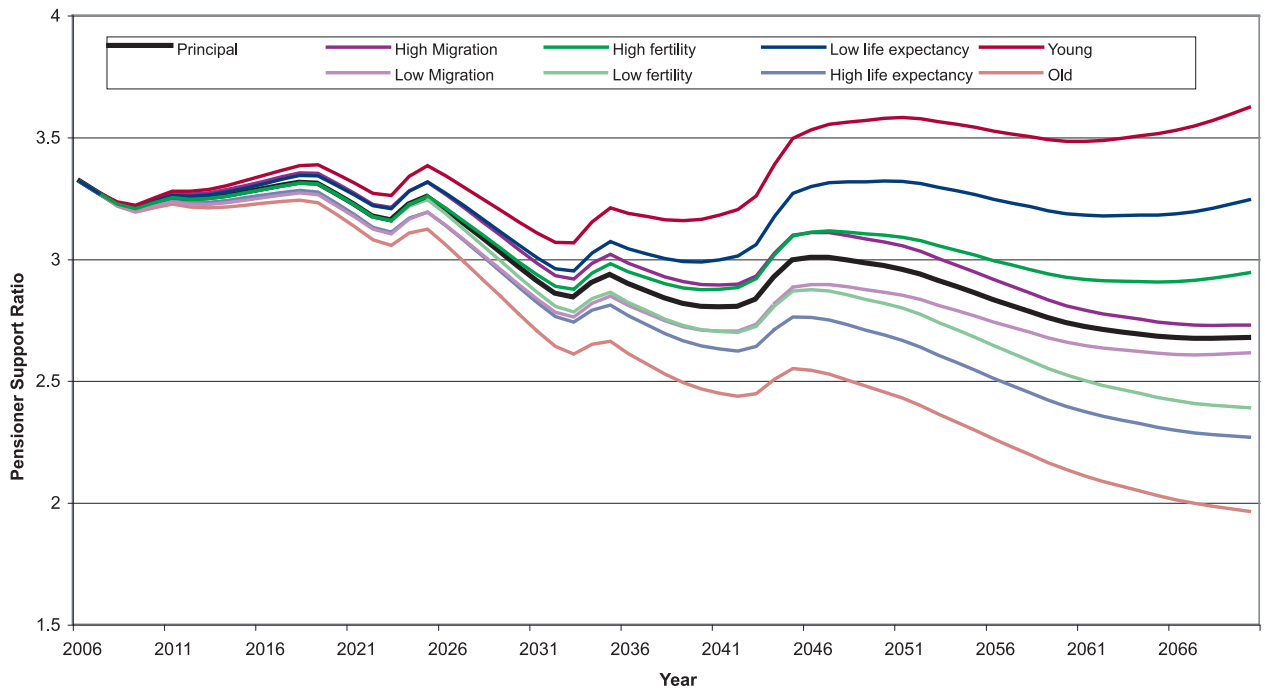
- 5.8 The *principal assumptions* reflect the 2006-based principal population projections for Great Britain produced by the Office for National Statistics (ONS). ONS also produces standard variant projections, including 'high' and 'low' variants for fertility, migration and life expectancy as well as combinations of these.
- 5.9 In this review we have shown the effect of using the individual ONS variant projections for fertility, migration and life expectancy. We have also shown the effect of using ONS's 'young' and 'old' combined variants. The young and old variants represent combinations of ONS's high and low fertility, migration and life expectancy variants, as follows:

Figure 5.1: Composition of ONS 'young' and 'old' combined variants

Combined variant	Fertility	Migration	Life expectancy
'Young'	High	High	Low
'Old'	Low	Low	High

- 5.10 One way to illustrate the impact of the eight ONS variant projections is to look at the pensioner support ratio over the period to 2070. The pensioner support ratio is the number of individuals of working age in the population for each pensioner (above *State Pension Age*). Figure 5.2 below shows the pensioner support ratio up to 2070 under the principal projections and each of the eight variant projections.

Figure 5.2 Pensioner support ratio under ONS 2006-based principal and variant population projections



The young and old combined variants have the greatest impact on the long-term population dependency ratio, and hence on the National Insurance contributions needed to balance income and expenditure in the long term. However, they do not represent upper or lower bounds, and future experience could fall outside this range.

Economic assumptions

- 5.11 Figure 5.3 below sets out the key *principal* and *variant economic assumptions* adopted in this review.

Figure 5.3 Key *principal* and *variant economic assumptions*

Assumption	Principal assumptions	Variant assumptions
Up-rating of Fund benefits and earnings limits	In line with current announced practice – this is a mixture of price and earnings up-rating (see paragraph 16.4.10 for details).	In line with RPI inflation ¹ In line with average earnings ²
Real earnings growth	1.5% pa and 2% pa	No further variants

- 5.12 The principal results in this review have been prepared on both 1.5% pa and 2% pa real earnings growth assumptions. For simplicity and consistency with variant projections from other sources, other variants are shown on 2% pa real earnings growth only. However, this does not imply any preference for this assumption.
- 5.13 Over the last decade, average real earnings growth has fallen outside this range (between 0.75% and 1% pa). However, there have been similar periods of short-term lower earnings growth in the past and as yet there is no long-term track record of real earnings growth at this level. Nonetheless, real earnings growth could fall outside the range 1.5% to 2% pa. In this review we show on an approximate basis (by extrapolation) the impact of real earnings growth of 1% pa or 2.5% pa on the projections.
- 5.14 If the recent level of average real earnings growth continues in future, then the impact of lower earnings growth on the progress of the Fund will be investigated in more detail at subsequent reviews.

Labour market assumptions

- 5.15 The labour market assumptions adopted for the main results imply that the average rate of unemployment in the labour force is assumed to be around 5% of the workforce throughout the projection period.
- 5.16 In this review we show the effect on the projections if average unemployment were assumed to be either 50% lower than this (ie a constant rate of around 2.5% of the workforce) or 50% higher than this (ie a constant rate of around 7.5% of the workforce).

Contracting-out assumptions

- 5.17 The *principal assumptions* regarding contracting-out of the State Second Pension can be summarised as follows:
- > All money-purchase contracting-out will cease from 2012
 - > There will be a phased decline in salary-related contracting-out resulting from the closure of defined benefit occupational pension schemes to new members and future benefit accrual. To illustrate this, total projected contracted-out rebates are projected to fall from around 9% of contributions in 2010-11 to around 3% by 2030-31 and to remain at around 3% until 2070-71.

¹ Low Earnings Threshold in line with average earnings.

² Additional retirement pension in line with RPI inflation.

- 5.18 The Department of Work and Pensions currently intends to review contracting-out in relation to occupational pension schemes no later than 2017. This review could have a number of possible outcomes. To illustrate sensitivity, this review shows the impact of all contracting-out ceasing in 2022 (the earliest possible date for implementing a decision if the review were to take place in 2017).

Incapacity Benefit/Employment and Support Allowance

- 5.19 To illustrate the sensitivity to factors which might affect the expenditure on Incapacity Benefit/Employment and Support Allowance, this review shows the impact of a 50% reduction or 50% increase in expenditure on these benefits occurring gradually (linearly) over the first 15 years of the projection period.

General variants

- 5.20 There are many factors which could lead to actual Fund income or outgo differing from expectations and it is not possible to identify them all in this report.
- 5.21 To help readers understand the sensitivity of the results, this review shows headline results based on a 5% fall in total contribution income or a 5% rise in total benefit expenditure in all projection years (from any cause).

Further details

- 5.22 A more detailed description of the assumptions adopted can be found in Appendix D (summary of assumptions), Appendix E (assumptions for specific items of expenditure) and Appendix F (details of demographic assumptions).

Section 5: Conclusions

The projections in this report are sensitive to the assumptions made and to other possible future events.

To illustrate sensitivity, projections are shown on the following *variant assumptions*:

- > Demographic assumptions (population projections) – see Section 6 which compares eight ONS variant projections with the ONS principal projections
- > Economic assumptions (up-rating of benefits and limits, and real earnings growth) – see Section 7 which compares price and earnings up-rating with the principal assumption of current announced practice (assuming 1.5% pa or 2% pa real earnings growth), and also looks at the effect of 1% pa or 2.5% pa real earnings growth (assuming up-rating with current announced practice)
- > Unemployment – see Section 8 which compares constant proportions unemployed of 2.5% and 7.5% to the principal assumption of 5%
- > Contracting-out of the State Second Pension – see Section 9 which compares a total cessation of contracting-out in 2022 with the principal assumption of a decline in salary-related contracting-out
- > Expenditure on incapacity benefits – see Section 10 which compares a gradual rise or fall in expenditure of 50% with the principal assumptions based on past data
- > Miscellaneous changes in income or outgo – see Section 11 which compares a 5% rise in benefit outgo or 5% fall in contribution income with the *principal assumptions*.

6 Projections on *variant demographic assumptions*

6.1 Against a principal assumption of ONS's 2006-based principal population projections, the projections in this section illustrate the following *variant demographic assumptions* from ONS's 2006-based population projections (with 2% pa real earnings growth) over the period to 2070-71¹:

6.2 'Young' and 'old' combined variants:

- > the young variant assumes high fertility, high migration and low life expectancy
- > the old variant assumes low fertility, low migration and high life expectancy

6.3 Low and high fertility

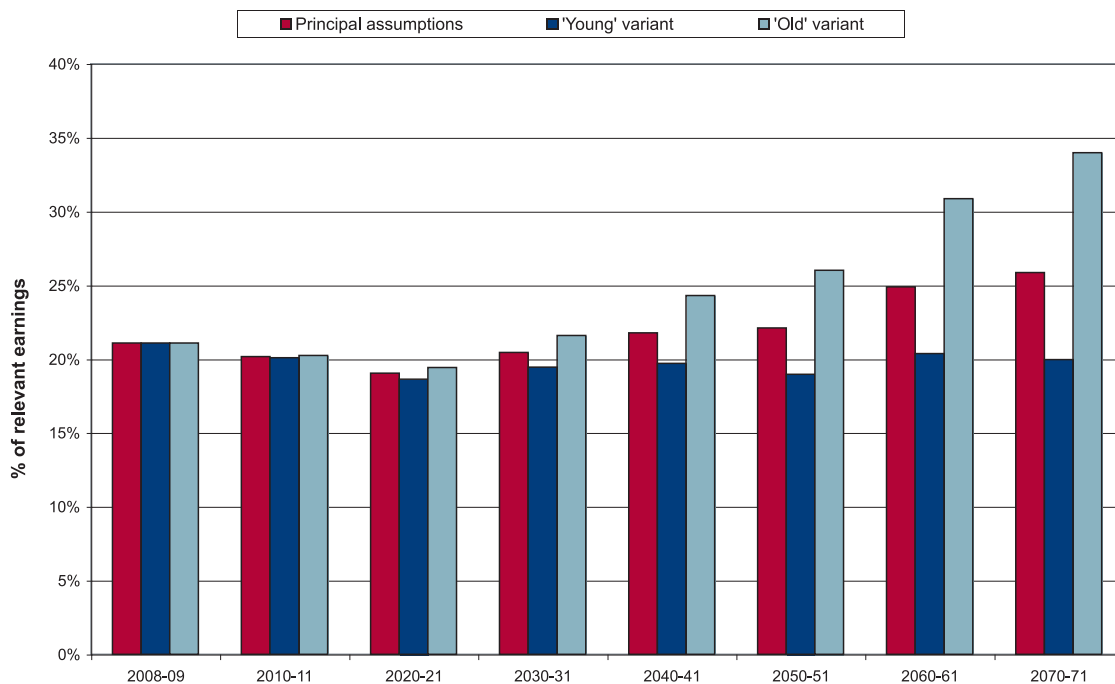
6.4 Low and high migration

6.5 Low and high life expectancy

6.2 Combined variants – young and old variants

6.2.1 Figure 6.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, on the ONS young and old combined variants together with the principal projections, assuming 2% pa real earnings growth.

Figure 6.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Combined variant demographic assumptions – 2% pa real earnings growth



6.2.2 The tables on the facing page show the main projection results over the period to 2070-71 on the ONS young and old combined variants, assuming 2% pa real earnings growth. A more detailed breakdown can be found in Appendix G.

¹ A summary of the population projections is set out in Appendix F. Full details are available at the following weblinks:

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

Figure 6.2 Main results in 2009-10 price terms
Combined variant demographic assumptions – 'young' variant – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.35	53.42	69.17	90.32	116.93	149.49	194.57
> Contributions from employers	42.40	50.29	75.14	98.31	128.13	165.73	212.06	275.70
Total contributions	74.45	88.64	128.56	167.48	218.45	282.66	361.55	470.28
Other income	1.11	0.89	8.87	16.66	26.86	42.68	62.56	87.56
Total income	75.56	89.53	137.44	184.15	245.30	325.34	424.10	557.84
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.07	73.97	103.18	134.30	157.15	205.59	256.82
> Additional State pension	11.12	13.52	19.15	28.55	42.98	64.24	105.53	141.89
> Other benefits	9.19	9.46	9.36	9.41	9.61	10.45	10.26	10.54
Total benefits	70.49	80.05	102.49	141.13	186.88	231.84	321.38	409.24
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.48	105.46	144.75	191.30	237.22	327.94	417.23
Excess/(shortfall) of income over outgo (£bn)	2.76	7.04	31.98	39.39	54.01	88.13	96.16	140.61
Balance in Fund at end of period (£bn)	50.63	61.25	312.63	679.45	1,139.67	1,877.34	2,800.19	3,963.98
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	20.1%	18.6%	19.5%	19.7%	19.0%	20.4%	20.0%

Figure 6.3 Main results in 2009-10 price terms
Combined variant demographic assumptions – 'old' variant – 2% pa real earnings growth

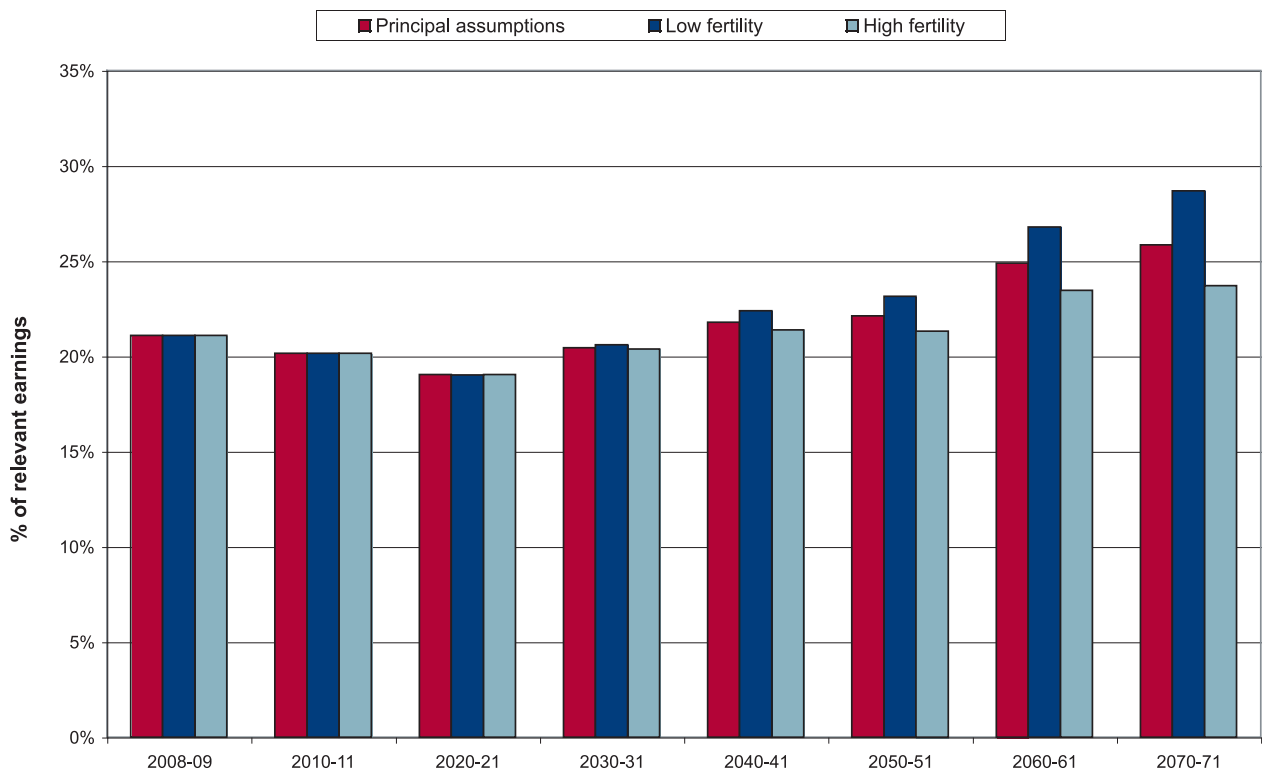
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.08	51.77	64.68	79.43	97.17	115.87	139.51
> Contributions from employers	42.40	49.91	72.74	91.65	112.12	136.67	163.10	196.19
Total contributions	74.45	87.99	124.51	156.32	191.55	233.84	278.97	335.70
Other income	1.11	0.86	8.05	13.23	15.53	13.84	5.81	7.05
Total income	75.56	88.85	132.57	169.55	207.08	247.67	284.78	342.75
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.33	75.56	109.00	150.72	190.19	260.62	341.78
> Additional State pension	11.12	13.55	19.44	29.89	46.78	72.04	120.15	169.21
> Other benefits	9.19	9.35	9.08	8.86	8.60	8.91	8.23	7.76
Total benefits	70.49	80.22	104.08	147.75	206.10	271.14	389.00	518.75
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.66	107.05	151.37	210.51	276.52	395.55	526.74
Excess/(shortfall) of income over outgo (£bn)	2.76	6.19	25.52	18.19	-3.43	-28.85	-110.77	-183.99
Balance in Fund at end of period (£bn)	50.63	59.92	275.08	510.74	578.74	436.02	0.00	0.00
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.4%	21.6%	24.3%	26.0%	30.9%	34.0%

¹ Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

6.3 Fertility variants – low and high fertility

6.3.1 Figure 6.4 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, on the ONS 2006-based low and high fertility variants together with the principal projections, assuming 2% pa real earnings growth.

Figure 6.4 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Individual variant demographic assumptions – low and high fertility – 2% pa real earnings growth



6.3.2 The tables on the facing page show the main projection results over the period to 2070-71 on the ONS 2006-based low and high fertility variants, assuming 2% pa real earnings growth. A more detailed breakdown can be found at the following weblink: <http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Figure 6.5 Main results in 2009-10 price terms
Individual variant demographic assumptions – low fertility – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.61	66.55	82.82	102.42	123.37	150.10
> Contributions from employers	42.40	50.10	73.94	94.31	116.90	144.08	173.72	211.15
Total contributions	74.45	88.32	126.55	160.86	199.72	246.50	297.09	361.25
Other income	1.11	0.87	8.47	14.88	20.30	25.09	23.94	11.09
Total income	75.56	89.19	135.03	175.75	220.02	271.60	321.03	372.33
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.23	44.93	68.33	113.53	157.19
> Other benefits	9.19	9.37	9.18	9.06	8.94	9.39	8.77	8.37
Total benefits	70.49	80.11	103.25	144.43	196.55	251.69	355.98	466.09
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.54	106.22	148.05	200.96	257.07	362.54	474.08
Excess/(shortfall) of income over outgo (£bn)	2.76	6.65	28.81	27.70	19.06	14.53	-41.51	-101.75
Balance in Fund at end of period (£bn)	50.63	60.64	294.41	592.91	820.95	1,011.19	873.28	123.05
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.0%	20.6%	22.4%	23.1%	26.8%	28.7%

Figure 6.6 Main results in 2009-10 price terms
Individual variant demographic assumptions – high fertility – 2% pa real earnings growth

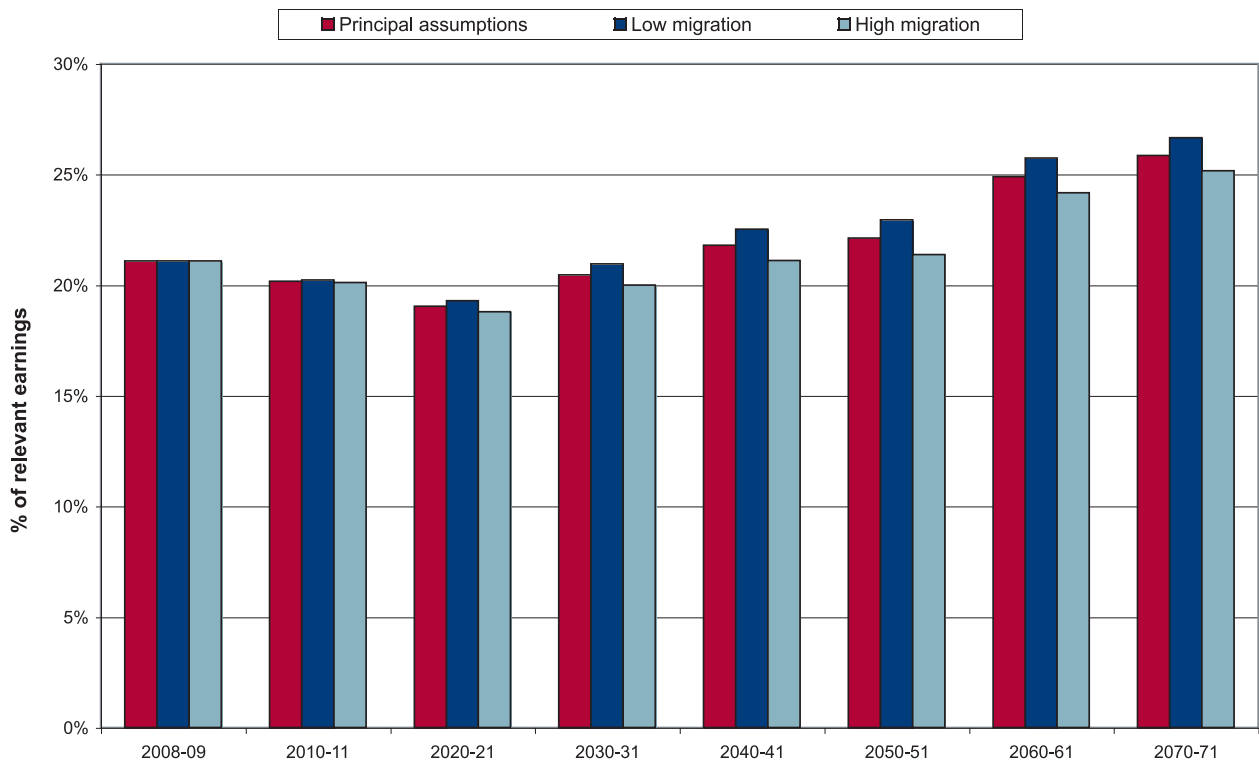
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.61	67.35	87.05	111.88	142.29	184.43
> Contributions from employers	42.40	50.10	73.94	95.66	123.33	158.27	201.31	260.45
Total contributions	74.45	88.32	126.55	163.02	210.39	270.15	343.60	444.88
Other income	1.11	0.87	8.46	15.01	22.05	31.26	39.22	44.22
Total income	75.56	89.19	135.01	178.03	232.44	301.41	382.82	489.10
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.23	44.93	68.33	113.54	157.21
> Other benefits	9.19	9.43	9.26	9.19	9.24	9.93	9.66	9.83
Total benefits	70.49	80.16	103.33	144.56	196.86	252.24	356.88	467.57
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.60	106.30	148.18	201.27	257.62	363.43	475.57
Excess/(shortfall) of income over outgo (£bn)	2.76	6.59	28.71	29.85	31.17	43.79	19.39	13.54
Balance in Fund at end of period (£bn)	50.63	60.53	293.46	597.51	895.85	1,294.22	1,606.73	1,744.66
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.0%	20.4%	21.4%	21.3%	23.5%	23.7%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

6.4 Migration variants – low and high migration

6.4.1 Figure 6.7 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, on the ONS 2006-based low and high migration variants together with the principal projections, assuming 2% pa real earnings growth.

Figure 6.7 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Individual variant demographic assumptions – low and high migration – 2% pa real earnings growth



6.4.2 The tables on the facing page show the main projection results over the period to 2070-71 on the ONS 2006-based low and high migration variants, assuming 2% pa real earnings growth. A more detailed breakdown can be found at the following weblink:

<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>

Figure 6.8 Main results in 2009-10 price terms
Individual variant demographic assumptions – low migration – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.07	51.73	65.10	81.61	101.71	125.01	155.75
> Contributions from employers	42.40	49.91	72.69	92.39	115.44	143.53	176.42	219.48
Total contributions	74.45	87.98	124.42	157.49	197.05	245.25	301.42	375.23
Other income	1.11	0.86	8.15	13.89	18.73	23.35	23.60	16.00
Total income	75.56	88.84	132.57	171.38	215.78	268.60	325.02	391.23
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.18	74.64	105.72	141.58	171.12	226.25	286.82
> Additional State pension	11.12	13.53	19.30	29.21	44.77	67.55	110.69	151.57
> Other benefits	9.19	9.40	9.13	8.95	8.79	9.22	8.71	8.55
Total benefits	70.49	80.11	103.07	143.87	195.14	247.89	345.65	446.94
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.55	106.04	147.49	199.55	253.27	352.20	454.94
Excess/(shortfall) of income over outgo (£bn)	2.76	6.29	26.53	23.89	16.23	15.32	-27.18	-63.71
Balance in Fund at end of period (£bn)	50.63	60.08	280.37	545.07	738.85	916.27	851.19	367.39
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.3%	20.9%	22.5%	22.9%	25.7%	26.6%

Figure 6.9 Main results in 2009-10 price terms
Individual variant demographic assumptions – high migration – 2% pa real earnings growth

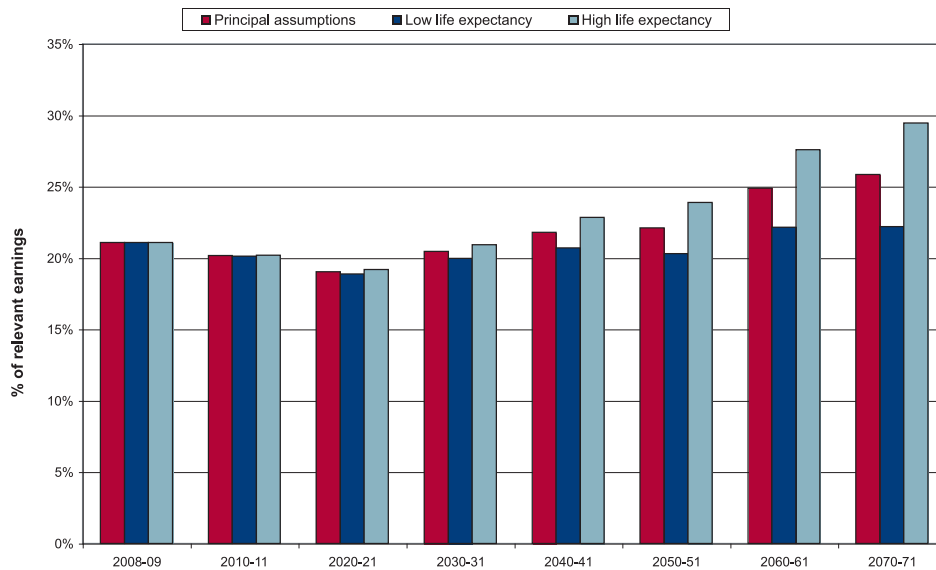
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.36	53.48	69.09	88.98	113.41	141.98	180.06
> Contributions from employers	42.40	50.30	75.20	98.06	125.84	160.04	200.40	253.77
Total contributions	74.45	88.65	128.68	167.15	214.83	273.45	342.38	433.83
Other income	1.11	0.89	8.78	16.06	24.03	33.90	41.16	41.94
Total income	75.56	89.54	137.45	183.22	238.86	307.35	383.54	475.77
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.22	74.90	106.56	143.78	176.82	241.11	314.24
> Additional State pension	11.12	13.53	19.30	29.26	45.09	69.11	116.38	162.81
> Other benefits	9.19	9.43	9.30	9.32	9.43	10.15	9.78	9.75
Total benefits	70.49	80.18	103.51	145.13	198.31	256.07	367.27	486.81
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.62	106.48	148.75	202.72	261.45	373.82	494.80
Excess/(shortfall) of income over outgo (£bn)	2.76	6.92	30.97	34.46	36.14	45.90	9.72	-19.03
Balance in Fund at end of period (£bn)	50.63	61.05	307.29	647.58	996.18	1,432.55	1,710.50	1,635.07
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.1%	18.8%	20.0%	21.1%	21.4%	24.2%	25.2%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

6.5 Life expectancy variants – low and high life expectancy

6.5.1 Figure 6.10 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, on the ONS 2006-based low and high life expectancy variants together with the principal projections, assuming 2% pa real earnings growth.

Figure 6.10 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Individual variant demographic assumptions – low and high life expectancy – 2% pa real earnings growth



6.5.2 The tables on the facing page show the main projection results over the period to 2070-71 on the ONS 2006-based low and high life expectancy variants, assuming 2% pa real earnings growth. A more detailed breakdown can be found at the following weblink: <http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Section 6: Conclusions

The future population profile of Great Britain could have a significant impact on the projected joint Class 1 National Insurance contribution rate to balance expenditure. This is summarised in the table below (assuming 2% pa real earnings growth):

Population projection	Effect on joint contribution rate to balance	Example rate (2070-71) as % of relevant earnings
Principal projection (for comparison)	-	25.8%
Combined young variant	Significantly lower	20.0%
Combined old variant	Significantly higher	34.0%
Low fertility	Higher	28.7%
High fertility	Lower	23.7%
Low migration	Slightly higher	26.6%
High migration	Slightly lower	25.2%
Low life expectancy	Significantly lower	22.2%
High life expectancy	Significantly higher	29.5%

On the 'old' combined variant, the Fund's balance is projected to be used up by 2060, whereas on the principal projections it is projected to be around £1,280 billion (in 2009-10 price terms) in 2060-61 and to still be positive in 2070-71.

Figure 6.11 Main results in 2009-10 price terms
Individual variant demographic assumptions – low life expectancy – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.57	66.96	84.98	106.90	132.39	166.13
> Contributions from employers	42.40	50.10	73.89	95.05	120.20	150.89	186.91	234.22
Total contributions	74.45	88.30	126.46	162.01	205.18	257.78	319.30	400.35
Other income	1.11	0.88	8.57	15.55	23.55	34.78	46.81	58.80
Total income	75.56	89.18	135.02	177.56	228.73	292.56	366.11	459.15
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.05	73.84	102.77	133.25	154.52	198.90	245.09
> Additional State pension	11.12	13.52	19.15	28.53	42.82	63.48	102.85	136.80
> Other benefits	9.19	9.42	9.24	9.16	9.14	9.72	9.30	9.21
Total benefits	70.49	79.99	102.23	140.46	185.22	227.72	311.04	391.10
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.43	105.20	144.07	189.63	233.10	317.60	399.09
Excess/(shortfall) of income over outgo (£bn)	2.76	6.75	29.83	33.49	39.10	59.46	48.52	60.06
Balance in Fund at end of period (£bn)	50.63	60.80	299.69	627.57	983.77	1,499.82	2,039.05	2,559.55
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.1%	18.9%	20.0%	20.7%	20.3%	22.2%	22.2%

Figure 6.12 Main results in 2009-10 price terms
Individual variant demographic assumptions – high life expectancy – 2% pa real earnings growth

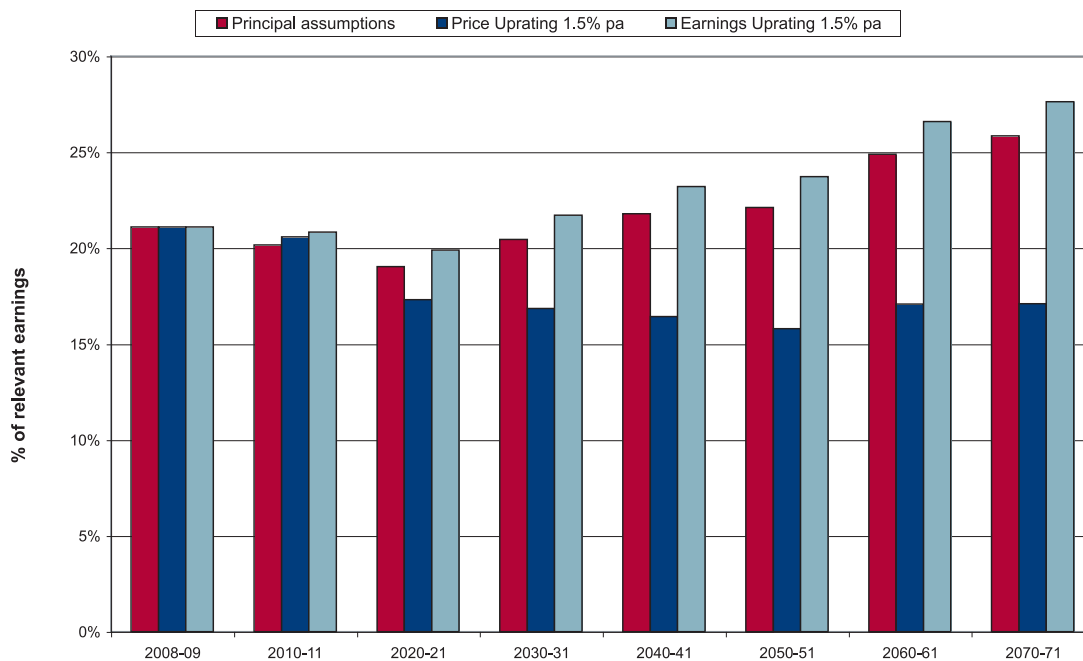
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.22	52.65	67.22	85.57	108.09	134.29	169.09
> Contributions from employers	42.40	50.11	74.00	95.40	121.02	152.50	189.50	238.25
Total contributions	74.45	88.33	126.64	162.61	206.59	260.59	323.80	407.34
Other income	1.11	0.87	8.36	14.41	19.25	22.58	18.12	8.75
Total income	75.56	89.20	135.00	177.02	225.84	283.16	341.92	416.10
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.35	75.70	109.43	151.86	193.20	268.63	357.09
> Additional State pension	11.12	13.55	19.45	29.91	46.95	72.85	123.13	175.25
> Other benefits	9.19	9.40	9.20	9.11	9.09	9.66	9.22	9.12
Total benefits	70.49	80.30	104.34	148.45	207.89	275.71	400.98	541.46
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.73	107.31	152.07	212.30	281.08	407.54	549.45
Excess/(shortfall) of income over outgo (£bn)	2.76	6.46	27.69	24.95	13.54	2.08	-65.62	-133.35
Balance in Fund at end of period (£bn)	50.63	60.33	288.00	565.51	753.58	854.35	531.77	0.00
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.2%	20.9%	22.8%	23.9%	27.6%	29.5%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

7 Projections on *variant economic assumptions*

- 7.1 Against a principal assumption of current announced practice (a mixture of price and earnings up-rating described further in paragraph 16.4.10), the projections in this section illustrate up-rating of benefit rates and earnings limits in line with RPI inflation or average earnings over the period to 2070-71. The projections are shown on both principal assumptions for real earnings growth of 1.5% pa and 2% pa.
- 7.2 This section also illustrates on an approximate basis (by extrapolation) the effect of assuming real earnings growth of 1% pa or 2.5% pa, with up-rating in line with current announced practice.
- 7.3 Figure 7.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming price or earnings up-ratings together with current announced practice, with 1.5% pa real earnings growth.

Figure 7.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant economic assumptions – 1.5% pa real earnings growth



- 7.4 The tables on the facing page show the main projection results over the period to 2070-71, assuming price or earnings up-rating with 1.5% pa real earnings growth. A more detailed breakdown can be found at the following weblink:
<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Figure 7.2 Main results in 2009-10 price terms
Variant economic assumptions – price up-rating – 1.5% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	36.39	51.94	61.91	72.76	83.47	92.97	103.95
> Contributions from employers	42.40	47.20	68.79	87.35	109.02	134.12	162.12	197.66
Total contributions	74.45	83.59	120.73	149.27	181.78	217.60	255.10	301.60
Other income	1.11	0.86	8.74	18.24	32.14	52.60	78.48	110.56
Total income	75.56	84.45	129.46	167.50	213.92	270.19	333.58	412.16
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	55.04	60.41	70.41	77.52	77.43	85.25	89.96
> Additional State pension	11.12	13.48	18.96	27.55	40.26	58.15	91.62	121.30
> Other benefits	9.19	9.11	9.34	9.70	10.12	11.25	11.23	11.61
Total benefits	70.49	77.63	88.71	107.66	127.90	146.83	188.10	222.87
Other outgo	2.32	2.42	2.80	3.25	3.78	4.38	5.08	5.90
Total outgo	72.80	80.04	91.51	110.92	131.68	151.21	193.18	228.77
Excess/(shortfall) of income over outgo (£bn)	2.76	4.41	37.96	56.58	82.25	118.98	140.39	183.39
Balance in Fund at end of period (£bn)	50.63	58.16	334.52	818.75	1,516.13	2,548.88	3,852.30	5,470.96
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.6%	17.3%	16.9%	16.4%	15.8%	17.1%	17.1%

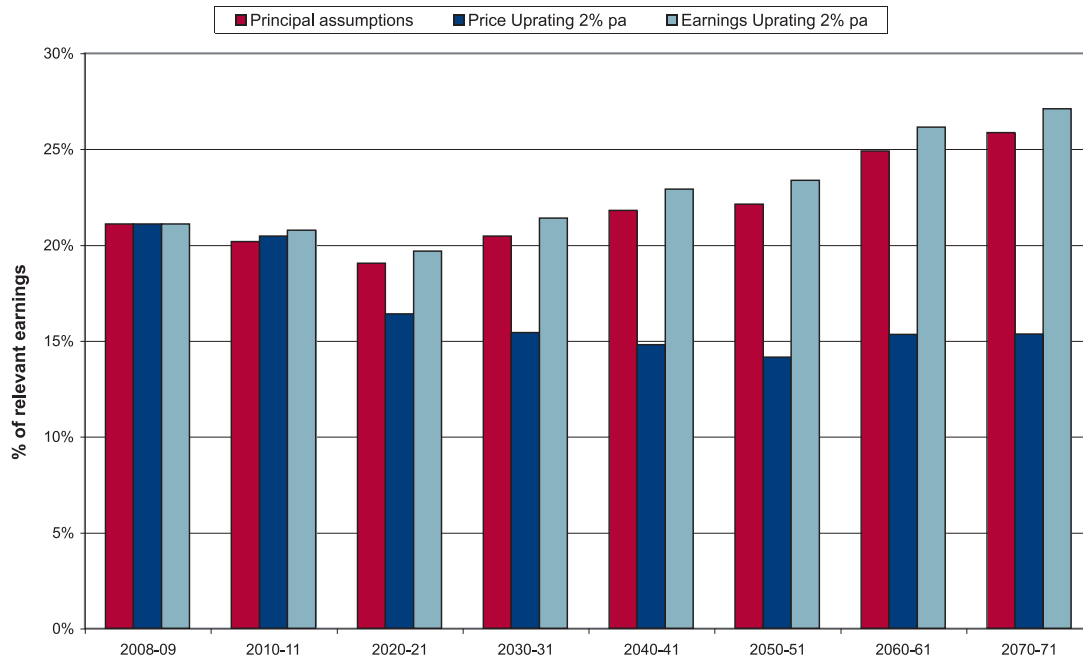
Figure 7.3 Main results in 2009-10 price terms
Variant economic assumptions – earnings up-rating – 1.5% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	36.37	51.89	63.02	76.48	91.92	108.72	130.26
> Contributions from employers	42.40	47.01	65.68	80.62	97.68	117.21	138.68	165.96
Total contributions	74.45	83.38	117.56	143.64	174.16	209.13	247.39	296.22
Other income	1.11	0.86	7.25	11.38	14.09	15.93	13.19	6.11
Total income	75.56	84.24	124.81	155.01	188.25	225.06	260.59	302.32
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	55.80	71.00	96.01	122.64	142.11	181.55	222.31
> Additional State pension	11.12	13.48	18.94	27.37	39.63	56.70	88.33	115.57
> Other benefits	9.19	9.24	10.99	13.24	16.03	20.66	23.94	28.73
Total benefits	70.49	78.52	100.92	136.61	178.30	219.47	293.83	366.61
Other outgo	2.32	2.42	2.80	3.25	3.78	4.38	5.08	5.90
Total outgo	72.80	80.94	103.73	139.87	182.07	223.85	298.92	372.52
Excess/(shortfall) of income over outgo (£bn)	2.76	3.30	21.09	15.15	6.18	1.21	-38.33	-70.19
Balance in Fund at end of period (£bn)	50.63	57.06	240.93	430.70	530.32	582.87	389.52	0.00
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.8%	19.9%	21.7%	23.2%	23.7%	26.6%	27.6%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

7.5 Figure 7.4 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming price or earnings up-rating together with current announced practice, with 2% pa real earnings growth.

Figure 7.4 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant economic assumptions – 2% pa real earnings growth



7.6 The tables on the facing page show the main projection results over the period to 2070-71, assuming price or earnings up-rating with 2% pa real earnings growth. A more detailed breakdown can be found at the following weblink:
<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>

Figure 7.5 Main results in 2009-10 price terms
Variant economic assumptions – price up-rating – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	36.63	54.75	67.44	80.82	94.08	105.74	119.08
> Contributions from employers	42.40	47.64	73.96	99.49	130.56	169.14	214.94	275.22
Total contributions	74.45	84.27	128.71	166.93	211.39	263.22	320.68	394.30
Other income	1.11	0.87	9.68	21.96	41.15	70.25	108.70	158.37
Total income	75.56	85.14	138.38	188.89	252.54	333.47	429.38	552.67
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	55.04	60.41	70.41	77.52	77.43	85.25	89.96
> Additional State pension	11.12	13.49	19.24	29.10	44.66	67.84	112.63	155.99
> Other benefits	9.19	9.11	9.34	9.70	10.13	11.25	11.24	11.62
Total benefits	70.49	77.64	88.99	109.22	132.31	156.51	209.12	257.57
Other outgo	2.32	2.43	2.96	3.61	4.40	5.36	6.53	7.96
Total outgo	72.80	80.07	91.94	112.82	136.70	161.87	215.65	265.54
Excess/(shortfall) of income over outgo (£bn)	2.76	5.08	46.44	76.07	115.83	171.60	213.73	287.13
Balance in Fund at end of period (£bn)	50.63	59.02	382.56	1,009.53	1,974.73	3,446.27	5,385.43	7,894.40
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.4%	16.4%	15.4%	14.8%	14.1%	15.3%	15.4%

Figure 7.6 Main results in 2009-10 price terms
Variant economic assumptions – earnings up-rating – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	36.61	54.94	70.16	89.21	112.62	139.91	176.07
> Contributions from employers	42.40	47.38	69.68	89.97	114.06	143.75	178.65	224.57
Total contributions	74.45	83.99	124.62	160.12	203.27	256.37	318.56	400.64
Other income	1.11	0.88	7.68	12.68	16.48	19.66	17.63	8.25
Total income	75.56	84.86	132.30	172.81	219.75	276.03	336.19	408.89
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	56.06	74.89	106.37	142.70	173.66	233.04	299.71
> Additional State pension	11.12	13.49	19.21	28.84	43.76	65.71	107.68	147.07
> Other benefits	9.19	9.28	11.59	14.67	18.66	25.27	30.75	38.76
Total benefits	70.49	78.83	105.69	149.87	205.12	264.64	371.47	485.55
Other outgo	2.32	2.43	2.96	3.61	4.40	5.36	6.53	7.96
Total outgo	72.80	81.25	108.65	153.48	209.52	270.00	378.00	493.51
Excess/(shortfall) of income over outgo (£bn)	2.76	3.61	23.65	19.33	10.23	6.03	-41.81	-84.63
Balance in Fund at end of period (£bn)	50.63	57.56	256.71	482.58	622.48	723.51	538.11	0.00
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.8%	19.7%	21.4%	22.9%	23.4%	26.1%	27.1%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

- 7.7 Against the principal assumptions for real earnings growth of 1.5% pa and 2% pa, the table below shows on an approximate basis¹ the effect of assuming real earnings growth of 1% pa or 2.5% pa on the projected contribution rates to balance expenditure (based on up-rating in line with current announced practice).

Figure 7.7 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant earnings growth assumptions – 1% and 2.5% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Joint Class 1 contribution rate to balance (% of relevant earnings)								
Assumed real earnings growth								
1% pa	21.1%	20.4%	20.0%	21.7%	23.0%	23.5%	26.5%	27.6%
1.5% pa	21.1%	20.3%	19.5%	21.1%	22.4%	22.8%	25.7%	26.7%
2% pa	21.1%	20.2%	19.0%	20.5%	21.8%	22.1%	24.9%	25.8%
2.5% pa	21.1%	20.1%	18.5%	19.9%	21.2%	21.4%	24.1%	24.9%

Section 7: Conclusions

The principal assumption for up-rating of benefit rates and earnings limits is in line with current announced practice (a mixture of price and earnings up-rating described further in paragraph 16.4.10.)

Assuming up-rating of benefit rates and earnings limits with prices, the projected joint Class 1 National Insurance contribution rate required to balance expenditure would be significantly lower than under current announced practice (for example, in 2070-71 it would be 15.4% of relevant earnings, compared with 25.8% on current announced practice, assuming 2% pa real earnings growth).

Assuming up-rating with average earnings, the projected contribution rate to balance would be higher than under current announced practice (for example, in 2070-71 it would be 27.1% of relevant earnings, compared with 25.8% on current announced practice, assuming 2% pa real earnings growth).

The key driver of this effect is the up-rating of basic retirement pension.

On earnings up-rating, the Fund's balance is projected to be used up by 2070. In comparison, on current announced practice the Fund's balance is projected to be around £1,000 billion (in 2009-10 price terms) in 2070-71, and on price up-rating it is projected to be around £7,900 billion (in 2009-10 price terms) in 2070-71. These figures assume 2% pa real earnings growth.

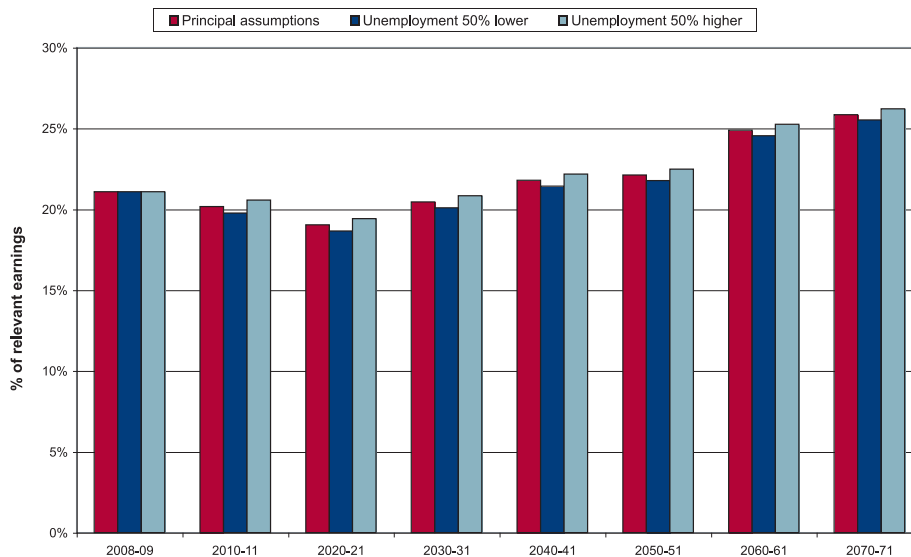
¹ The figures have been estimated by extrapolating from the principal assumptions and should be treated as approximate indications. Extrapolation outside this range may not be appropriate.



8 Projections on *variant labour market assumptions*

- 8.1 Against a principal assumption of unemployment averaging a constant 5% of the workforce, the projections in this section illustrate the following *variant labour market assumptions* over the period to 2070-71:
- > Unemployment 50% lower (around 2.5% of the workforce throughout the period)
 - > Unemployment 50% higher (around 7.5% of the workforce throughout the period).
- 8.2 Figure 8.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming unemployment 50% lower (2.5% of workforce), 50% higher (7.5% of workforce) or in line with the *principal assumptions* (5% of workforce), with 2% pa real earnings growth.

Figure 8.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant labour market assumptions – 2% pa real earnings growth



- 8.3 The tables on the facing page show the main projection results over the period to 2070-71, assuming lower or higher unemployment, with 2% pa real earnings growth. A more detailed breakdown can be found at the following weblink:
<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Section 8: Conclusions

The principal assumption is that unemployment will average a constant 5% of the workforce.

If unemployment were instead assumed to average a constant 2.5% of the workforce, the projected joint Class 1 National Insurance contribution rate required to balance expenditure would be slightly lower (for example, in 2070-71 it would be 25.5% of relevant earnings, compared with 25.8% on the *principal assumptions*, assuming 2% pa real earnings growth).

If unemployment were assumed to average a constant 7.5% of the workforce, the projected contribution rate to balance would be slightly higher (for example, in 2070-71 it would be 26.2% of relevant earnings, compared with 25.8% on the *principal assumptions*, assuming 2% pa real earnings growth).

A sudden change in the level of unemployment would have a similar impact in the years when it occurred.

Although the assumed changes in unemployment are significant, the impact on the projected contribution rates to balance is small. This is because the percentage change in the total number of contributors is limited (2.5% unemployed means 97.5% in work and 7.5% unemployed means 92.5% in work), and because most of the Jobseeker's Allowance payable is income-related and falls outside the National Insurance Fund.

Figure 8.2 Main results in 2009-10 price terms

Variant labour market assumptions – unemployment 50% lower – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.83	53.47	68.18	86.68	109.32	135.67	170.65
> Contributions from employers	42.40	50.92	75.18	96.80	122.64	154.32	191.55	240.58
Total contributions	74.45	89.75	128.65	164.97	209.32	263.64	327.22	411.22
Other income	1.11	0.92	9.10	16.41	23.89	32.61	38.27	37.31
Total income	75.56	90.67	137.75	181.38	233.21	296.25	365.50	448.53
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.32	29.31	45.16	68.79	114.58	158.91
> Other benefits	9.19	8.84	8.60	8.53	8.52	9.11	8.69	8.61
Total benefits	70.49	79.57	102.68	143.98	196.36	251.87	356.94	468.05
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.01	105.65	147.60	200.77	257.24	363.50	476.04
Excess/(shortfall) of income over outgo (£bn)	2.76	8.66	32.09	33.78	32.44	39.00	2.00	-27.51
Balance in Fund at end of period (£bn)	50.63	63.77	325.30	667.87	993.81	1,374.78	1,577.72	1,421.68
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	19.8%	18.7%	20.1%	21.4%	21.8%	24.6%	25.5%

Figure 8.3 Main results in 2009-10 price terms

Variant labour market assumptions – unemployment 50% higher – 2% pa real earnings growth

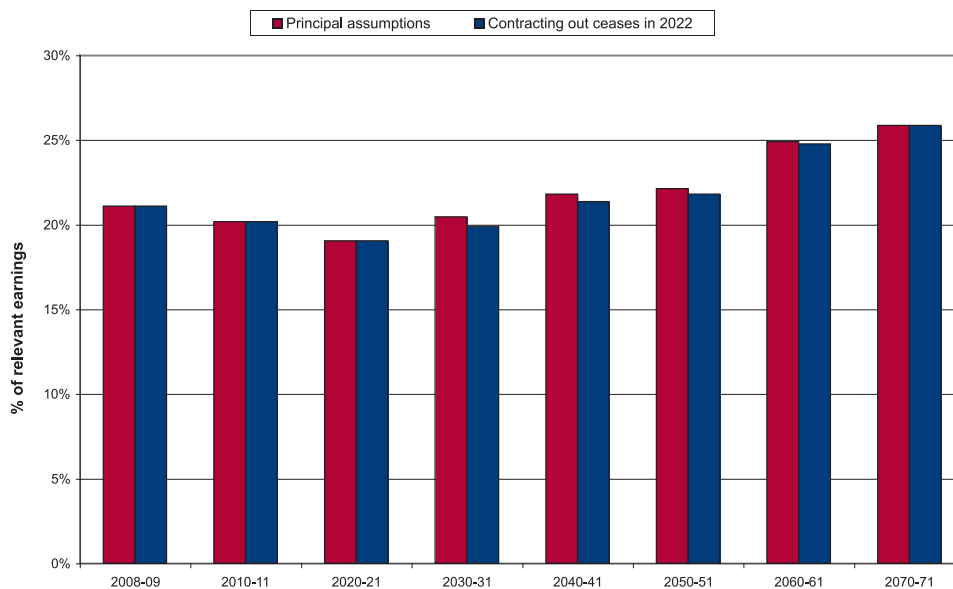
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.06	37.58	51.73	65.99	83.88	105.76	131.26	165.10
> Contributions from employers	42.40	49.26	72.67	93.61	118.59	149.19	185.19	232.59
Total contributions	74.45	86.84	124.40	159.60	202.47	254.95	316.45	397.69
Other income	1.11	0.83	7.81	13.52	18.81	24.56	26.36	20.45
Total income	75.56	87.67	132.21	173.12	221.28	279.51	342.81	418.14
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.28	29.15	44.71	67.87	112.48	155.45
> Other benefits	9.19	9.98	9.84	9.74	9.70	10.26	9.80	9.69
Total benefits	70.49	80.72	103.89	145.02	197.09	252.10	355.95	465.68
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	83.15	106.86	148.64	201.50	257.47	362.51	473.67
Excess/(shortfall) of income over outgo (£bn)	2.76	4.51	25.35	24.48	19.78	22.03	-19.70	-55.53
Balance in Fund at end of period (£bn)	50.63	57.29	261.69	523.26	738.49	969.70	977.47	571.53
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.6%	19.4%	20.8%	22.2%	22.5%	25.3%	26.2%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

9 Projections on *variant contracting-out assumptions*

- 9.1 The principal contracting-out assumption is that money purchase contracting-out will cease in 2012 and there will be a phased decline in salary-related contracting-out. The projections in this section illustrate the effect over the period to 2070-71 of contracting-out following the principal assumption until 2022 and then ceasing completely.
- 9.2 Figure 9.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming contracting-out follows the principal assumption until 2022 and then ceases, or contracting-out follows the principal assumption throughout.

Figure 9.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant contracting-out assumptions – 2% pa real earnings growth



- 9.3 The table on the facing page shows the main projection results over the period to 2070-71, assuming all contracting-out ceases in 2022. A more detailed breakdown can be found at the following weblink:
<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Section 9: Conclusions

The principal assumption is that money purchase contracting-out will cease in 2012 and salary-related contracting-out will suffer a phased decline over the period to 2070-71.

If instead contracting-out followed the principal assumption until 2022 and then ceased completely, the projected joint Class 1 National Insurance contribution rate required to balance expenditure would be in line with the principal results until 2022, when it would be slightly lower than on the *principal assumptions*. For example, in 2030-31 it would be 19.9% of relevant earnings, compared with 20.5% on the *principal assumptions* (assuming 2% pa real earnings growth). The reason for the fall in the projected contribution rate to balance is the increase in net contribution receipts resulting from the abolition of contracting-out rebates.

Over time, the fall in the projected contribution rate to balance would be offset by the increase in State Second Pension built up by those reaching State Pension Age. The difference from the *principal assumptions* is projected to broadly disappear by 2070-71.

Figure 9.2 Main results in 2009-10 price terms
Variant contracting-out assumptions – all contracting-out ceases in 2022
2% pa real earnings growth

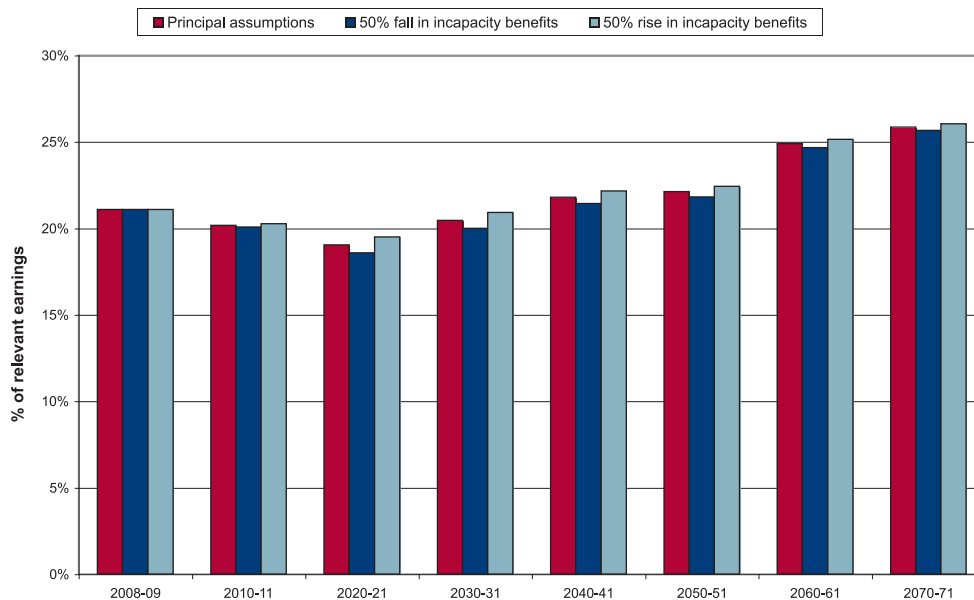
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self- employed & voluntary contributions	32.05	38.21	52.61	68.65	87.15	109.96	136.55	171.80
> Contributions from employers	42.40	50.10	73.94	98.31	124.32	156.69	194.66	244.59
Total contributions	74.45	88.32	126.55	166.95	211.48	266.65	331.22	416.38
Other income	1.11	0.87	8.46	15.86	23.39	32.03	37.27	35.21
Total income	75.56	89.19	135.01	182.82	234.87	298.68	368.49	451.59
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.41	46.10	71.37	120.41	168.74
> Other benefits	9.19	9.41	9.22	9.14	9.11	9.69	9.24	9.15
Total benefits	70.49	80.15	103.29	144.68	197.89	255.02	363.33	478.42
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.58	106.26	148.30	202.30	260.40	369.89	486.41
Excess/(shortfall) of income over outgo (£bn)	2.76	6.61	28.76	34.52	32.57	38.28	-1.40	-34.82
Balance in Fund at end of period (£bn)	50.63	60.57	293.84	645.93	974.82	1,353.89	1,536.12	1,325.38
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.0%	19.9%	21.4%	21.8%	24.7%	25.8%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

10 Projections on variant assumptions for expenditure on Incapacity Benefit and Employment and Support Allowance

- 10.1 Against a principal assumption of numbers in receipt of benefits and movements between categories based on past data, the projections in this section illustrate the effect over the period to 2070-71 of a 50% fall or rise in expenditure on incapacity benefits occurring gradually (linearly) over the first 15 years of the projection period.
- 10.2 Figure 10.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming a gradual 50% fall or rise in expenditure on incapacity benefits, or in line with the *principal assumptions*.

Figure 10.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant assumptions for expenditure on IB/ESA – 2% pa real earnings growth



- 10.3 The tables on the facing page show the main projection results over the period to 2070-71, assuming a gradual 50% fall or rise in expenditure on incapacity benefits. A more detailed breakdown can be found at the following weblink:

<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Section 10: Conclusions

If the expenditure on incapacity benefits were to fall by 50% gradually over the 15 years from 2009 to 2024, the projected joint Class 1 National Insurance contribution rate required to balance expenditure would be slightly lower (for example, in 2030-31 it would be 20.0% of relevant earnings, compared with 20.5% on the *principal assumptions*, assuming 2% pa real earnings growth).

If the expenditure were to rise by 50% gradually from 2009 to 2024, the projected contribution rate to balance would be slightly higher (for example, in 2030-31 it would be 20.9% of relevant earnings, compared with 20.5% on the *principal assumptions*, assuming 2% pa real earnings growth).

This effect would reduce over time. This is because incapacity benefits are projected to form a smaller proportion of overall expenditure, as they are assumed to be linked to prices whereas basic retirement pension is assumed to be linked to average earnings.

Figure 10.2 Main results in 2009-10 price terms
Variant assumptions for expenditure on IB/ESA – 50% reduction in expenditure occurring gradually over first 15 years – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.61	67.10	85.30	107.56	133.50	167.91
> Contributions from employers	42.40	50.10	73.94	95.23	120.64	151.79	188.42	236.64
Total contributions	74.45	88.32	126.55	162.33	205.94	259.36	321.91	404.55
Other income	1.11	0.87	8.81	16.17	23.62	32.18	37.56	36.09
Total income	75.56	89.19	135.36	178.50	229.56	291.54	359.47	440.63
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.23	44.93	68.33	113.54	157.20
> Other benefits	9.19	8.93	6.37	5.54	5.50	5.77	5.52	5.46
Total benefits	70.49	79.67	100.44	140.90	193.11	248.07	352.73	463.19
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.10	103.41	144.52	197.53	253.45	359.29	471.18
Excess/(shortfall) of income over outgo (£bn)	2.76	7.08	31.96	33.97	32.04	38.09	0.18	-30.55
Balance in Fund at end of period (£bn)	50.63	61.27	313.51	659.31	983.99	1,358.34	1,547.36	1,366.81
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.1%	18.6%	20.0%	21.4%	21.8%	24.7%	25.7%

Figure 10.3 Main results in 2009-10 price terms
Variant assumptions for expenditure on IB/ESA – 50% increase in expenditure occurring gradually over first 15 years – 2% pa real earnings growth

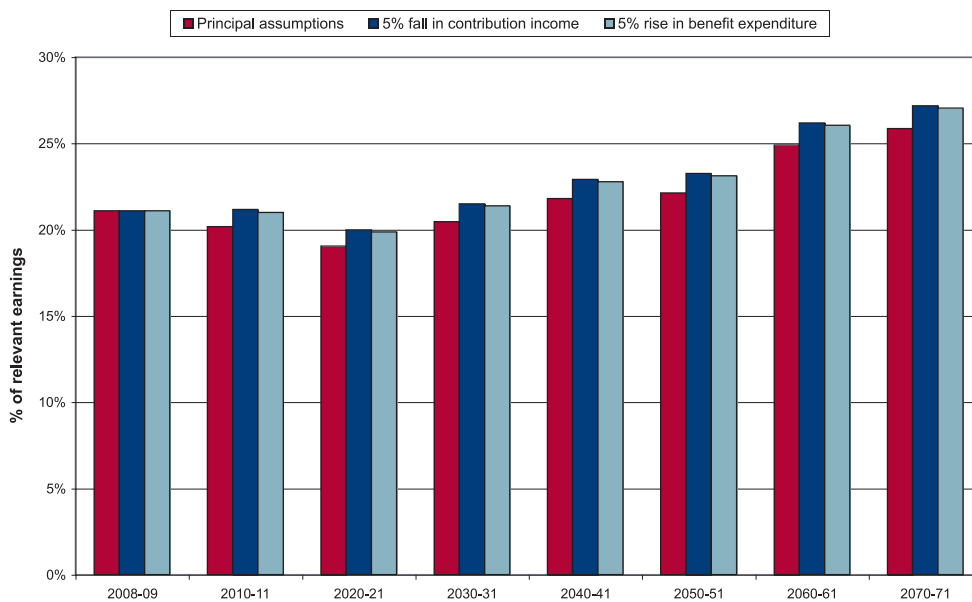
	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
National Insurance contributions (assuming existing rates)								
> Contributions from employees, the self-employed & voluntary contributions	32.05	38.21	52.61	67.10	85.30	107.56	133.50	167.91
> Contributions from employers	42.40	50.10	73.94	95.23	120.64	151.79	188.42	236.64
Total contributions	74.45	88.32	126.55	162.33	205.94	259.36	321.91	404.55
Other income	1.11	0.85	8.09	13.76	19.11	25.03	27.16	21.80
Total income	75.56	89.17	134.64	176.09	225.06	284.39	349.07	426.35
Outgo (£bn)								
Benefit payments:								
> Basic State pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
> Additional State pension	11.12	13.53	19.30	29.23	44.93	68.33	113.54	157.20
> Other benefits	9.19	9.89	12.07	12.73	12.72	13.60	12.97	12.83
Total benefits	70.49	80.63	106.14	148.10	200.34	255.90	360.18	470.57
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	83.06	109.11	151.72	204.75	261.28	366.74	478.56
Excess/(shortfall) of income over outgo (£bn)	2.76	6.11	25.53	24.37	20.31	23.11	-17.66	-52.21
Balance in Fund at end of period (£bn)	50.63	59.82	273.88	532.90	750.46	989.74	1,013.38	634.50
Joint contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.3%	19.5%	20.9%	22.1%	22.4%	25.1%	26.0%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

11 Projections showing impact of changes to income or outgo

- 11.1 The projection results shown in this review could be affected by other changes to income and/or outgo not explicitly represented by variant projections. For example, future legislative changes in benefit rules or contribution limits could result in higher or lower benefit expenditure or contribution income respectively. The projections in this section illustrate the effect over the period to 2070-71 of total contribution income being a constant 5% lower than the *principal assumptions*, or total benefit outgo being a constant 5% higher, from whatever cause.
- 11.2 Figure 11.1 below shows the projected joint Class 1 contribution rate to balance income and expenditure in the year, assuming a 5% fall in contribution income or a 5% rise in benefit outgo, or on the *principal assumptions*.

Figure 11.1 Projected joint Class 1 contribution rate required to balance income and expenditure in the year
Variant income/outgo – 2% pa real earnings growth



- 11.3 The tables on the facing page show the headline projection results over the period to 2070-71, assuming a 5% fall in contribution income or a 5% rise in benefit outgo throughout the period.

Section 11: Conclusions

If contribution income were to fall by 5%, for whatever reason, the projected joint Class 1 National Insurance contribution rate required to balance expenditure would increase (other things being equal). For example, in 2070-71 it would be 27.2% of relevant earnings, compared with 25.8% on the *principal assumptions* (assuming 2% pa real earnings growth).

If benefit outgo were to rise by 5%, the projected contribution rate to balance would also increase (other things being equal). For example, in 2070-71 it would be 27.0% of relevant earnings compared with 25.8% on the *principal assumptions* (assuming 2% pa real earnings growth).

Figure 11.2 Headline results in 2009-10 price terms
Variant income/outgo – 5% fall in contribution income – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
Total contributions	74.45	83.79	120.08	154.04	195.43	246.11	305.48	383.90
Other income	1.11	0.73	7.06	11.67	15.30	18.63	16.98	7.89
Total income	75.56	84.52	127.14	165.71	210.73	264.75	322.46	391.79
Outgo (£bn)								
Total benefits	70.49	80.15	103.29	144.50	196.72	251.98	356.46	466.88
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	82.58	106.26	148.12	201.14	257.36	363.01	474.87
Excess/(shortfall) of income over outgo (£bn)	2.76	1.94	20.88	17.59	9.60	7.38	-40.55	-83.08
Balance in Fund at end of period (£bn)	50.63	51.68	219.43	423.70	552.77	658.71	487.67	0.00
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	21.2%	20.0%	21.5%	22.9%	23.2%	26.2%	27.2%

Figure 11.3 Headline results in 2009-10 price terms
Variant income/outgo – 5% rise in benefit expenditure – 2% pa real earnings growth

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Income (£bn)								
Total contributions	74.45	88.32	126.55	162.33	205.94	259.36	321.91	404.55
Other income	1.11	0.74	7.32	12.26	16.21	19.90	18.46	7.87
Total income	75.56	89.06	133.87	174.58	222.15	279.26	340.37	412.42
Outgo (£bn)								
Total benefits	70.49	84.15	108.45	151.73	206.56	264.58	374.28	490.22
Other outgo	2.32	2.44	2.97	3.62	4.41	5.38	6.56	7.99
Total outgo	72.80	86.59	111.42	155.35	210.97	269.96	380.84	498.21
Excess/(shortfall) of income over outgo (£bn)	2.76	2.47	22.45	19.23	11.18	9.30	-40.46	-85.80
Balance in Fund at end of period (£bn)	50.63	52.58	233.25	454.21	599.16	723.74	562.63	0.00
Joint Class 1 contribution rate required to balance income & expenditure in year (% of relevant earnings) ¹	21.1%	21.0%	19.9%	21.4%	22.8%	23.1%	26.0%	27.0%

¹ Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

12 Comparison with previous Quinquennial Review

12.1 Figure 12.1 below compares headline projection results in 2010-11, 2030-31 and 2060-61 from this review (on the *principal assumptions* with 2% pa real earnings growth) with the previous review (on price up-rating with 2% pa real earnings growth).

Figure 12.1: Headline projection results from this review and the previous review as at 5 April 2000

	2010-11		2030-31		2060-61	
	Previous review	This review	Previous review	This review	Previous review	This review
Total projected expenditure from the Fund as % of GDP	6.0%	5.6%	5.3%	6.3%	4.6%	7.8%
Projected balance in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year	1.1	0.7	6.6	4.0	25.3	3.5
Projected joint Class 1 contribution rate ¹ required to balance income and expenditure in the year	18.4%	20.2%	16.4%	20.5%	14.9%	24.9%

12.2 The main causes of the changes shown above are as follows:

12.4 Changes in benefits

12.5 Actual economic and demographic experience

12.6 Changes in projection assumptions

12.7 Changes in contribution rates (of the three results shown above, this only affects the projected Fund balance).

The impact of changes since the previous review has been illustrated by reference to the projected contribution rates to balance expenditure in 2010-11, 2030-31 and 2060-61.

¹ Contribution rate shown as a percentage of relevant earnings. Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

12.3 Impact of changes since previous review

12.3.1 The figure below shows the impact of changes since the previous review on an approximate basis by calculating the resulting difference (positive or negative) arising in the projected joint Class 1 contribution rates to balance the Fund based on the *principal assumptions* with 2% pa real earnings growth.

Figure 12.2 Analysis of changes in the projected joint Class 1 contribution rate since the previous Quinquennial Review as a result of:

- > **changes in benefits**
 - > **changes in projection assumptions**
 - > **actual economic and demographic experience**
- Principal assumptions – 2% pa real earnings growth***

Year	2010-11	2030-31	2060-61
Projected joint Class 1 contribution rate ¹ from previous Quinquennial Review (price up-rating, 2% pa real earnings growth)	18.4%	16.4%	14.9%
Changes in benefits			
Changes in eligibility and qualifications for basic State pension ²	0.0%	+0.1%	+0.3%
Earnings linking on basic State pension from 2012 ²	0.0%	+4.0%	+9.2%
Simplification of State Second Pension accrual ²	-0.1%	-0.2%	-0.5%
Change in State Pension Age from 65 to 68	0.0%	-1.0%	-2.8%
Change from Incapacity Benefit to Employment and Support Allowance	+0.1%	0.0%	0.0%
Changes in projection assumptions			
Changes to projected population of Great Britain	0.0%	-0.1%	+1.4%
Changes to number of employees who are assumed to be contracted-out	-1.0%	-1.0%	-0.7%
Actual economic and demographic experience			
Average earnings experience (lower than previously assumed)	+1.6%	+1.8%	+2.2%
Other Fund experience since previous Quinquennial Review	+0.8%	+0.8%	+0.9%
Other miscellaneous effects	+0.4%	-0.3%	0.0%
Projected Joint Class 1 rate contribution rate ¹ at this Quinquennial Review	20.2%	20.5%	24.9%

¹ Contribution rate shown as a percentage of relevant earnings. Relevant earnings are earnings between the Primary Threshold and Upper Earnings Limit for employees, and all earnings above the Secondary Threshold for employers.

² Post-5 April 2005 events.

12.3.2 The sections below set out the main changes since the previous review in more detail.

12.4 Changes in benefits

12.4.1 The following paragraphs set out the main changes in legislation affecting Fund benefit since the previous review. All these changes took place after 5 April 2005.

12.4.2 A number of material changes to the basic retirement pension were made in the Pensions Act 2007:

- > reducing the number of qualifying years needed for a full pension from 39 (women) or 44 (men) to 30 for those retiring after 5 April 2010
- > widening the scope of the system of credits to help increase the numbers becoming entitled to a pension (eg carers)
- > enabling those with very few qualifying years to get at least some pension
- > linking the pension to earnings rather than prices, from 2012, subject to affordability and the fiscal position, or at the latest by the end of the next Parliament. In this report we have assumed this begins in 2012 (consistent with other Government projections).

12.4.3 The State Second Pension accrual is to be simplified to give ultimately a flat rate benefit from 2030 (under the Pensions Act 2007 and National Insurance Contributions Act 2008).

12.4.4 The Pensions Act 2007 set out plans to abolish contracting-out on a defined contribution basis on a date appointed through an order made by the Secretary of State for Work and Pensions and now confirmed as 2012.

12.4.5 *State Pension Age* for men and women will increase from 65 to 68 between 2024 and 2046 (under the Pensions Act 2007).

12.4.6 The Welfare Reform Act 2007 introduced the new Employment and Support Allowance (ESA) to replace Incapacity Benefit (IB). This came into effect in October 2008.

12.5 Changes in projection assumptions

12.5.1 The current review is based on 2006-based ONS population projections. The previous review used 2001-based projections. The main changes are:

- > an increase in assumed future life expectancy. For example, a male reaching age 65 in 2010 is expected to live on average for a further 21.1 years compared to 18.2 years in the previous review
- > an increase in assumed fertility. For example, a woman born in 1990 is expected to bear on average 1.84 children compared to 1.74 in the previous review
- > an increase in assumed migration. For example, from 2014-15 onwards, assumed net inward migration is 189,500 a year compared to 101,500 a year in the previous review.

The net effect of these changes is an increase in the assumed long-term dependency ratio of the population, leading to an increase in the projected contribution rates required.

12.5.2 In addition to the abolition of contracting-out on a money purchase basis, we have assumed a phased decline in salary-related contracting-out as more defined benefit pension schemes have closed or are expected to close to new members and future accrual. This assumption results in a reduction in the contracted-out rebates paid by the Fund, and hence an increase in the net National Insurance contributions received for each 1% of relevant earnings. Accordingly, the projected National Insurance contribution rates as a percentage of relevant earnings required to balance expenditure are lower. In the longer term, this effect will be partially offset by increased expenditure on the State Second Pension.

12.5.3 There are no material changes in economic assumptions. The decision to up-rate the basic retirement pension with earnings is discussed under changes in benefits above.

12.6 **Actual economic and demographic experience**

12.6.1 Fund experience since the previous review has led to an overall increase in the projected required contribution rates. This is a result of several factors, notably:

- > real earnings growth having been lower than 2% pa
- > increases in the rate of basic retirement pension having exceeded increases in the Retail Price Index
- > a small increase in administration costs.

12.7 **Changes in contribution rates**

12.7.1 The Pre-Budget Reports of November 2008 and December 2009 announced an increase of 1% in the rates of employer, employee and self-employed National Insurance contributions from 2011-12. These changes have been reflected in the projections in this review.

12.7.2 The impact of these changes cannot be illustrated by reference to the projected contribution rates to balance expenditure. Instead, the effect on the Fund balance is shown in the following paragraph.

12.7.3 To illustrate the impact of these changes, if the rates of National Insurance contributions had not been increased then the National Insurance Fund's balance would have been projected to be used up by around 2054. Allowing for the changes, the balance in 2054 is projected to be around £1,250 bn (in 2009-10 prices). These projections are based on the *principal assumptions* and 2% pa real earnings growth.

The conclusions of this section are set out overleaf.

Section 12: Conclusions

Projected Fund balance

The previous review published in October 2003 projected that the Fund's balance would grow to around 25 times expenditure in the year by 2060-61 (assuming price up-rating, 2% pa real earnings growth and no change to contribution rates).

In this review, on the *principal assumptions* with 2% pa real earnings growth, and no further change to contribution rates after 2011-12, the balance is projected to peak in 2047-48 at around 4¹/₂ times expenditure in the year, and to reduce to around twice expenditure in the year by 2070-71.

The main reasons for this change since the previous review are the assumed up-rating of basic retirement pension with earnings rather than prices, and the increase in the assumed long-term dependency ratio of the population, offset by the increase in employee and employer contribution rates from 2011-12 and the increase in State Pension Age from 65 to 68.

Projected contribution rates to balance expenditure

The previous review projected that the joint Class 1 contribution rate to balance expenditure would reduce from 18.4% of relevant earnings in 2010-11 to 14.9% in 2060-61 (assuming price up-rating and 2% pa real earnings growth).

In this review, on the *principal assumptions* and assuming 2% pa real earnings growth, the corresponding rate is projected to increase from 20.2% in 2010-11 to 24.9% in 2060-61.

The main reason for this change since the previous review is the linking of basic retirement pension to average earnings. The effect of this on the projected National Insurance contributions required to balance expenditure is an increase of around 9.2% of relevant earnings in 2060-61.

Other significant factors affecting the projected contributions to balance compared to the previous review are:

- > the use of updated population projections (an increase of around 1.4% in 2060-61)
- > the increase in State Pension Age from 65 to 68 (a reduction of around 2.8% in 2060-61)
- > the lower than expected average earnings growth since the previous review (an increase of around 2.2% in 2060-61).

13 Appendix A Data used

- 13.1 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.
- 13.2 The data used can be categorised broadly as follows:
- > Information from National Insurance contribution and benefit administration systems
 - > Financial data from National Insurance Fund accounts
 - > Census information from population projections and workforce surveys.
- 13.3 Data is used in three main areas:
- > as the starting point of the projections. This data (comprising population data, National Insurance Fund accounts, benefit expenditure information and workforce information) is summarised further below.
 - > to help choose appropriate assumptions about the future (although allowance is also made for expected future trends which may not yet be reflected in administrative data sources). The choice of assumptions is discussed in Appendices D and E.
 - > as a validation of the projection methodology. Projection results are compared with actual out-turn data in 2008-09 to help ensure the projections are robust.
- 13.4 Summarised below is the data used as the starting point for the projections.
- > The source of population data is the ONS 2006-based population projections for Great Britain issued in 2007. The population data is described in Appendix F.
 - > Details of the National Insurance Fund for the year ending 5 April 2009 were taken from the Fund accounts published in December 2009.
 - > The main source of data for benefit expenditure was information published by the Department for Work and Pensions, covering both numbers of recipients of benefits and the average amounts payable, broken down by age and sex.
 - > The contribution projections were based on information from the Labour Force Survey and the Annual Survey of Hours and Earnings (formerly the New Earnings Survey), supplemented by information provided by HM Revenue and Customs.
- 13.5 GAD has not verified the data (except for limited reviews for reasonableness) and does not accept responsibility for any inaccuracies in the data supplied. The suppliers of the data have confirmed that the summaries in 13.4 above are in line with their expectations.
- 13.6 The data supplied for overseas pensioners contained some apparent inconsistencies. Estimates of the number of individuals overseas are based on information about those who do not participate in the National Insurance contribution system for two complete tax years, supplied by the Department of Work and Pensions. There were inconsistencies in the patterns of those ceasing to contribute, both by age and tax year. In order to obtain consistent data for the purposes of projecting expenditure of overseas pensioners, numbers at these ages and in these years were assumed to follow trends observed in other ages and years. In the opinion of GAD these assumptions do not have a material impact on the overall projection results.

14 Appendix B Summary of benefits and contributions

14.1 Introduction

14.1.1 This Appendix summarises the main National Insurance Fund contributions and benefits on which the projections in this review are based. Specific benefit details can be found in Appendix C.

14.1.2 This Appendix reflects the position at 10 March 2010 including known future changes in contributions and benefits. It contains the following sections:

- 14.2 Contributions
- 14.3 Treasury Grant
- 14.4 Benefits

14.2 Contributions

14.2.1 Introduction

14.2.1.1 This section describes the main features of National Insurance contributions.

14.2.1.2 For the purpose of National Insurance contributions, the population of Great Britain is divided into three main categories:

- 14.2.2 Employed persons (Class 1)
- 14.2.3 Self-employed persons (Class 2 and 4)
- 14.2.4 Other persons, not employed or with low earnings (Class 3)

14.2.2 Contributions – *Employed persons (Class 1)*

14.2.2.1 Employed persons and their employer pay *Class 1 National Insurance contributions* on earnings falling within certain bands. The Class 1 contributions paid by employees are called *Class 1 primary contributions* and those paid by employers are *Class 1 secondary contributions*.

Employed persons (Class 1) – earnings bands

14.2.2.2 Figure B1 below sets out the earnings on which Class 1 contributions are based.

Figure B1 Earnings bands on which Class 1 National Insurance contributions are based in the period 2000-01 to 2009-10

Tax year	Earnings used to calculate primary contributions	Earnings used to calculate secondary contributions
2000-01 to 2002-03	Earnings between the Primary Threshold and the Upper Earnings Limit	
2003-04 to 2009-10	All earnings above the Primary Threshold (but lower rate applies above the Upper Earnings Limit)	All earnings above the Secondary Threshold

14.2.2.3 The earnings thresholds and limits in force for Class 1 contributions in each tax year from 2000-01 up to 2010-11 are shown in Figure B2 below. From 2009-10, the Upper Earnings Limit (UEL) was aligned to the income tax higher rate threshold. It has been announced that from 2011-12 the Primary Threshold will increase so that its annual equivalent is aligned with the income tax basic personal allowance plus £570 a year. However, the Secondary Threshold is unaffected by these changes.

Figure B2 Basic retirement pension and earnings limits from 2000-01 to 2010-11

	Basic retirement pension (£ per week)	Earnings limits (£ per week)			
		Lower Earnings Limit	Upper Earnings Limit	Primary Threshold	Secondary Threshold
2000-01	67.50	67.00	535.00	76.00	84.00
2001-02	72.50	72.00	575.00	87.00	87.00
2002-03	75.50	75.00	585.00	89.00	89.00
2003-04	77.45	77.00	595.00	89.00	89.00
2004-05	79.60	79.00	610.00	91.00	91.00
2005-06	82.05	82.00	630.00	94.00	94.00
2006-07	84.25	84.00	645.00	97.00	97.00
2007-08	87.30	87.00	670.00	100.00	100.00
2008-09	90.70	90.00	770.00	105.00	105.00
2009-10	95.25	95.00	844.00	110.00	110.00
2010-11	97.65	97.00	844.00	110.00	110.00

Employed persons (Class 1) – contribution rates

14.2.2.4 Figure B3 shows the rates of contribution applicable to most employed persons.

Figure B3 Main Class 1 percentage contribution rates for employees (primary) and employers (secondary) from 2000-01 to 2011-12, showing those contributions allocated to the National Insurance Fund (NIF) and to the NHS, for those not contracted-out

Tax year	Main primary Class 1 rate (paid by employees)			Main secondary Class 1 rate (paid by employers)		
	NIF allocation	NHS allocation	Total	NIF allocation	NHS allocation	Total
2000-01	8.95%	1.05%	10.0%	11.3%	0.9%	12.2%
2001-02	8.95%	1.05%	10.0%	11.0%	0.9%	11.9%
2002-03	8.95%	1.05%	10.0%	10.9%	0.9%	11.8%
2003-04 to 2010-11	8.95%	2.05%	11.0%	10.9%	1.9%	12.8%
2011-12	9.95%	2.05%	12.0%	11.9%	1.9%	13.8%

Notes

1. From 2003-04 onwards, a lower primary contribution rate of 1% (allocated to NHS) applied to all earnings above the UEL. From 2011-12 onwards, this increases to 2% (of which 1% is allocated to NHS).

14.2.2.5 The total primary rate paid by those married women and widows who pay the reduced rate of contribution was 3.85%, of which 2.8% went to the National Insurance Fund, for years up to 2002-03. In 2003-04 these rates were increased to 4.85% and 3.8% respectively on earnings between the Lower and Upper Earnings Limits. In addition, such women and widows will pay contributions at the rate of 1% on all earnings above the UEL. The rates of secondary contributions are the same as for other employees. From 2011-12 all these rates of contribution will increase by a further 1% on earnings above and below the UEL.

Employed persons (Class 1) – contracting-out

14.2.2.6 Figure B4 shows the reduction in National Insurance contributions for those individuals who are members of contracted-out defined benefit occupational pension schemes. Rebates are payable on earnings between the Lower Earnings Limit (LEL) and Upper Accrual Point (or the UEL prior to 2009-10), even though the main Class 1 rate is based on a different band of earnings. The Upper Accrual Point is set at £770 per week and is fixed in cash terms.

Figure B4 Contracted-out rebates (%) from 2000-01 to 2009-10 as a percentage of earnings from the Lower Earnings Limit up to the Upper Earnings Limit (for years to 2008-09), or up to the Upper Accrual Point (in 2009-10)

Year	Contracted-out salary-related schemes			Contracted-out money purchase schemes	Appropriate personal pensions
	Employee	Employer	Total		
2000-01	1.6%	3.0%	4.6%	2.2-9.0%	3.8-9.0%
2001-02	1.6%	3.0%	4.6%	2.2-9.0%	3.8-9.0%
2002-03	1.6%	3.5%	5.1%	2.6-10.5%	4.2-10.5%
2003-04	1.6%	3.5%	5.1%	2.6-10.5%	4.2-10.5%
2004-05	1.6%	3.5%	5.1%	2.6-10.5%	4.2-10.5%
2005-06	1.6%	3.5%	5.1%	2.6-10.5%	4.2-10.5%
2006-07	1.6%	3.5%	5.1%	2.6-10.5%	4.2-10.5%
2007-08	1.6%	3.7%	5.3%	3.0-7.4%	4.7-7.4%
2008-09	1.6%	3.7%	5.3%	3.0-7.4%	4.7-7.4%
2009-10	1.6%	3.7%	5.3%	3.0-7.4%	4.7-7.4%

14.2.3 Contributions – Self-employed persons (Class 2 and 4)

14.2.3.1 Self-employed persons who have not been granted exemption on account of low earnings pay flat-rate *Class 2 National Insurance contributions*. If they have profits above the Lower Profits Limit (LPL) they also pay earnings-related *Class 4 contributions*. The main rate of Class 4 contributions is paid on profits up to the Upper Profits Limit (UPL) and a lower rate on profits above this level.

14.2.3.2 Details of the Small Earnings Exception limit, the profits limits and the contribution rates for the self-employed during the period 2000-01 to 2010-11 are shown in Figure B5. Up to 2002-03, Class 4 contributions were only payable on profits between the LPL and UPL. From 2003-04, the standard contribution rate for profits between these limits was increased to 8% and an additional contribution of 1% of earnings above the UPL became payable. From 2011-12 the rate of Class 4 contributions will increase by a further 1% (on earnings above and below the UPL). From 2009-10, the UPL was aligned to the income tax higher rate threshold. It has been announced that from 2011 the LPL will increase so that it is aligned with the income tax basic personal allowance plus £570 a year.

Figure B5 Contribution rates, including the NHS allocation, and profits limits for self-employed persons from 2000-01 to 2010-11

	Small Earnings Exception limit (£ per annum)	Class 2 contribution (£ per week)	Profits limits for Class 4 contributions (£ per annum)		Standard Class 4 contribution rate on profits between the limits (%)
			Lower	Upper	
2000-01	3,825	2.00	4,385	27,820	7.0
2001-02	3,955	2.00	4,535	29,900	7.0
2002-03	4,025	2.00	4,615	30,420	7.0
2003-04	4,095	2.00	4,615	30,940	8.0
2004-05	4,205	2.05	4,745	31,720	8.0
2005-06	4,345	2.10	4,895	32,760	8.0
2006-07	4,465	2.10	5,035	33,540	8.0
2007-08	4,635	2.20	5,225	34,840	8.0
2008-09	4,825	2.30	5,435	40,040	8.0
2009-10	5,075	2.40	5,715	43,875	8.0
2010-11	5,075	2.40	5,715	43,875	8.0

14.2.4 Contributions – **Other persons, not employed or with low earnings (Class 3)**

14.2.4.1 People not liable to pay contributions as employed or self-employed persons may pay *Class 3 National Insurance contributions* on a voluntary basis with a view to meeting the contribution conditions for entitlement to bereavement benefits and basic retirement pension. The Class 3 contribution rate, including the NHS share, is shown in Figure B6. 15.5% of the income from *Class 3 contributions* is allocated to the NHS.

Figure B6 Class 3 contributions

	Class 3 contribution £ per week
2000-01	6.55
2001-02	6.75
2002-03	6.85
2003-04	6.95
2004-05	7.15
2005-06	7.35
2006-07	7.55
2007-08	7.80
2008-09	8.10
2009-10	12.05
2010-11	12.05

14.3 Treasury Grant

14.3.1 The Treasury Grant was introduced by the Social Security Act 1993. It enables money provided by Parliament to be paid into the National Insurance Fund if the Treasury considers it expedient to do so to maintain the level of the Fund. It is subject to a maximum of 17% of benefit expenditure in the year. The amount paid in any financial year is based on estimates, made by the Government Actuary prior to the start of the year, of the expected financial position of the Fund at the end of the year.

14.4 Benefits

14.4.1 Introduction

14.4.1.1 This section describes the main features of benefits paid from the National Insurance Fund. It contains the following sections:

14.4.2 General eligibility conditions (Section B3.1)

14.4.3 *State Pension Age* (Section B3.2)

Specific benefit details can be found in Appendix C.

14.4.2 Benefits – **General eligibility conditions**

14.4.2.1 The Figure below sets out the benefit entitlements for the different classes of contributions described in Section 14.2 above.

Figure B7 Entitlement to National Insurance Fund benefits for different National Insurance contribution classes

Class	Entitlement
Class 1 full rate	All benefits
Class 1 reduced rate	Only through husband's contributions (except possibly Statutory Sick Pay and Statutory Maternity Pay)
Class 1 contracted-out	All flat rate benefits. Reduced or no entitlement to SERPS/S2P
Class 2 & 4	All benefits except Jobseeker's Allowance and earnings-related additions to retirement pension and Widowed Parent's Allowance
Class 3	Basic retirement pension, bereavement benefits for spouse and Christmas bonus only

14.4.2.2 Eligibility for contributory Employment and Support Allowance and Jobseeker's Allowance is generally determined by two conditions:

- > For the first condition, claimants must have paid Class 1 contributions on relevant earnings of at least 25 times the weekly Lower Earnings Limit during the qualifying year. (Class 2 contributions count towards Employment and Support Allowance but not Jobseeker's Allowance.)
- > For the second condition, claimants must have paid contributions on relevant earnings of at least 50 times the weekly Lower Earnings Limit during each of the past two qualifying years. National Insurance credits can also be used to satisfy this condition.

14.4.2.3 Eligibility for other benefits is generally determined by reference to whether a person received (or was treated as having received) qualifying earnings for the year that were at least 52 times the weekly Lower Earnings Limit (LEL). This is called a *qualifying year*.

14.4.2.4 Credits allow some individuals who are not working to build up benefit entitlement. For example, the impact of credits on the basic retirement pension is broadly as follows:

- > People who are unable to work because of sickness or disability, or who are unemployed and are available for and actively seeking work, or who are receiving carer's allowance, are normally entitled to a credit for each week they fulfil the relevant conditions.
- > Men aged 60 to 64 who are not liable to pay contributions and are in Great Britain for at least six months of the tax-year are entitled to 'autocredits'.
- > From 2010 autocredits will be gradually phased out for men, with the lower age for entitlement rising in line with increases in the female *State Pension Age* from 60 to 65.

14.4.2.5 These credits count as a contribution at the Lower Earnings Limit for entitlement to most benefits. However, they do not count towards the first contribution condition for Employment and Support Allowance and Jobseeker's Allowance.

14.4.2.6 Young people under age 19 qualify for *starting credits*. These credits can only be used to help qualify for retirement pension and bereavement benefits.

14.4.3 *Benefits – State Pension Age*

14.4.3.1 The age from which the basic and additional retirement pensions are payable is to rise in future from the current age of 60 (women) and 65 (men). Figure B8 summarises these changes in broad terms.

Figure B8 State Pension Age changes

Year of reaching State Pension Age	State Pension Age	
	Men	Women
2010-11	65	60-60.5
2011-12	65	60.5-61
2012-13	65	61-61.5
2013-14	65	61.5-62
2014-15	65	62-62.5
2015-16	65	62.5-63
2016-17	65	63-63.5
2017-18	65	63.5-64
2018-19	65	64-64.5
2019-20	65	64.5-65
2020-24	65	65
2024-25	65-65.5	65-65.5
2025-26	65.5-66	65.5-66
2026-34	66	66
2034-35	66-66.5	66-66.5
2035-36	66.5-67	66.5-67
2036-44	67	67
2044-45	67-67.5	67-67.5
2045-46	67.5-68	67.5-68
2046-	68	68

15 Appendix C Specific benefit details

15.1 Introduction

15.1.1 This Appendix sets out details of the specific Fund benefits on which the projections in this review are based. It concentrates on those aspects that are most significant in financial terms. It does not attempt to give a definitive description of the benefit rules, which are set out in statute.

15.1.2 Details of each of the National Insurance Fund benefits are given below:

- 15.2 Basic Retirement Pension
- 15.3 Graduated Retirement Pension
- 15.4 Additional pension (SERPS and State Second Pension)
- 15.5 Bereavement benefits
- 15.6 Incapacity Benefit/Employment and Support Allowance
- 15.7 Jobseeker's Allowance
- 15.8 Guardian's Allowance
- 15.9 Christmas bonus for pensioners
- 15.10 Statutory Sick Pay and Statutory Maternity Pay
- 15.11 Statutory Adoption Pay and Statutory Paternity Pay
- 15.12 Maternity Allowance

15.2 Basic retirement pension

15.2.1 Entitlement to basic retirement pension is based on the number of *qualifying years* in the working life. Working life for retirement pension runs from the tax year in which age 16 is attained up to the tax year before reaching *State Pension Age*, eg where the *State Pension Age* is 65 the working life is 49 years. The entitlement by *qualifying years* is changing for individuals reaching *State Pension Age* from 2010-11. *State Pension Age* is also changing as described in Appendix B.

15.2.2 The following Figure shows the percentage of the full basic retirement pension payable according to the number of *qualifying years* completed, based on a working life of 49 years, for retirements before and after April 2010.

Figure C1 Percentage of the full basic retirement pension according to the number of *qualifying years* (sample years only) completed for an individual with a working life of 49 years

Number of qualifying years	Individuals reaching SPA pre-April 2010	Individuals reaching SPA post-April 2010
	% of full basic retirement pension	
44 or more	100%	100%
40	91%	100%
35	80%	100%
30	69%	100%
25	57%	83%
20	46%	67%
15	35%	50%
11	25%	37%
10	Nil	33%
5	Nil	17%
1	Nil	3%

- 15.2.3 The full standard rate of pension from April 2010 is £97.65 per week. Additions may be paid for certain adult and child dependants. These amount to £57.05 per week for an adult, £8.10 per week for the first child and £11.35 for subsequent children.
- 15.2.4 No further adult dependency increases will be awarded if claimed after April 2010. Existing increases will be paid until April 2020 (while eligibility conditions remain satisfied). No new child dependency increases have been awarded since April 2003.
- 15.2.5 From April 1978 to April 2010, any complete tax year in which a person qualifies for Home Responsibilities Protection while looking after children or disabled persons has been deducted from the minimum number of years of contributions/credits needed to qualify for a full basic pension. From April 2010, a new system of credits will be introduced to allow parents and carers to build up *qualifying years*. This replaces Home Responsibilities Protection. From 2010, married men or women and civil partners will be able to claim a retirement pension based on their spouses' or partners' contribution record if their own contributions mean they will get less than 60% of the full retirement pension. In addition, contributions paid in countries with which there is a reciprocal agreement may be taken into account in qualifying for a pension, although any resulting pension is adjusted to reflect the period working abroad.
- 15.2.6 Special rules apply to married women up to April 2010. A married woman whose husband is receiving a *Category A* retirement pension at the standard rate may receive a '*Category BL*' pension of about 60% of the amount of her husband's pension based on her husband's contribution record provided she is over *State Pension Age*. A dependent wife who is under *State Pension Age* does not receive a pension, but her husband may receive an addition to his pension for an adult dependant. A married woman may also be entitled to a *Category A* retirement pension based on her own contributions. If her *Category A* pension is less than the full rate of *Category BL* pension payable to a married woman, the two pensions are combined to give a composite pension. The *Category A* pension is increased by the lesser of:

- > the difference between the full-rate *Category BL* pension and the *Category A* pension to which she is entitled; or
- > the rate of the *Category BL* pension to which she is entitled.

15.2.7 A widow, widower or surviving civil partner may receive a *Category B* pension at the full standard rate where the contribution conditions and other conditions relating to age at date of death are satisfied. Widowers or surviving civil partners who are over *State Pension Age* whose wives or partners are under *State Pension Age* at death cannot at present qualify for a *Category B* pension or inherit any benefit. These rules will change from April 2010 when benefits for widows, widowers and surviving civil partners will be fully equalised. The *Category B* pension can be added to any *Category A* pension based on the widow, widower's or surviving civil partner's own record subject to the maximum for a single person. Divorced persons, those who had their civil partnership dissolved and those widowed under *State Pension Age* may take into account contributions paid by the former spouse or civil partner up to the time of divorce, dissolution or death instead of their own contributions in the same period, if that would lead to a more favourable entitlement to basic pension on their own contribution record. From 2010, the restriction on *Category A* pensions that the spouse or civil partner must have made a claim for *Category B* pension will be removed.

15.2.8 People who do not claim their retirement pension at *State Pension Age* will be awarded higher pensions when they subsequently claim. Until April 2005 the increase was 1/7th of 1% for each week of deferment up to a maximum of five years. Since April 2005, the increase is 1/5th of 1% for each week of deferment with no maximum period of deferment. People who defer for one year or more then have a choice about whether they wish to receive these payments of extra retirement pension or a one-off lump sum instead. The lump sum will be equal to the amount of retirement pension forgone plus interest at a rate 2% above the Bank of England base rate.

15.3 Graduated retirement pension

15.3.1 Employees who paid graduated contributions in the period between April 1961 and April 1975 earned units of graduated retirement benefit. Each £7.50 paid by a man and each £9.00 paid by a woman gave entitlement to a pension unit of 2.5 pence per week. Since November 1978 the value of the unit has been up-rated each year and is 11.53 pence per week from April 2009. From April 2010 units of graduated benefit for new awards to women will be determined in the same way as for men (ie each unit will be based on £7.50 of contributions). Spouses or civil partners can inherit one half of the graduated benefit to which their deceased spouse or civil partner was entitled.

15.4 Additional pension (SERPS and State Second Pension)

15.4.1 Since April 1978, employees have been able to earn an additional earnings-related pension. The pension earned up to April 2002 is calculated under the State Earnings-Related Pensions Scheme (SERPS). From 6 April 2002, the pension is known as the State Second Pension, which, although based on the SERPS structure, incorporates some important revisions. The main provisions of SERPS are described, followed by a description of how these provisions are modified for the State Second Pension.

Additional pension – SERPS

15.4.2 Employees who have earnings over the annual Lower Earnings Limit (LEL) in any year in the period from April 1978 to April 2002 are entitled to an earnings-related additional pension (SERPS). The earnings in any tax-year between the LEL and Upper Earnings Limit (UEL) for that year are revalued in line with the increases in the general level of earnings, up to the year before reaching *State Pension Age*. A slightly different approach applied for new awards of pension before April 2000, whereby the earnings were revalued

before deducting the Lower Earnings Limit, but then the limit for the final year was deducted from the revalued earnings.

- 15.4.3 Under SERPS as originally enacted in the Social Security Pensions Act 1975, the aim of the system was to provide a pension equal to 25% of revalued average earnings, considering the highest 20 years' earnings from the working life when calculating this average. Under the Social Security Act 1986, this was changed, so that SERPS would ultimately provide a pension equal to 20% of revalued average earnings, and only after a full working life. Therefore the rate of accrual each year would eventually be 20/N%, where N is the number of years in the working life, but with transitional provisions to protect the entitlements of certain groups. For the purpose of calculating SERPS, working life is the number of tax years from the year of attaining age 16 (or 1978/79 if later) up to the year before attaining *State Pension Age*, subject to a minimum of 20.
- 15.4.4 Under these transitional rules, the accrual rate remains 25/N% in respect of earnings up to April 1988. The accrual rate in respect of earnings from April 1988 depends on the year in which *State Pension Age* is attained. Those retiring before April 2000 will receive a pension based on an accrual rate of 25/N% for post-1988 earnings. For those retiring from April 2000 up to 2009 there is a phased reduction in the accrual rate from 25/N% to 20/N%. For later retirements, the accrual rate for post-1988 earnings will be the ultimate rate of 20/N%. A complete summary of the accrual rates is given in Figure C2.

Figure C2 Accrual rates for SERPS pensions

Year of retirement	Accrual rate % for period 1978-79 to 1987-88	Accrual rate % for period 1988-89 to 2001-02
1998-99 and before	25/20	25/20
1999-00	25/21	25/21
2000-01	25/22	24.5/22
2001-02	25/23	24/23
2002-03	25/24	23.5/24
2003-04	25/25	23/25
2004-05	25/26	22.5/26
2005-06	25/27	22/27
2006-07	25/28	21.5/28
2007-08	25/29	21/29
2008-09	25/30	20.5/30
2009-10	25/31	20/31
2010-11	25/32	20/32
:		
2022-23	25/44	20/44
:		
2027-28 and later	25/49	20/49

Additional pension – State Second Pension

- 15.4.5 The Child Support, Pensions and Social Security Act 2000 reformed SERPS, which is now known as the State Second Pension or S2P. The State Second Pension started to accrue from April 2002. Benefit entitlement under SERPS earned up to April 2002 will continue to be calculated as before. The main changes introduced by the State Second Pension are as follows:

- > The introduction of three different accrual rates on different bands of earnings (see below);

- > Treating those earning between the Lower Earnings Limit and the Low Earnings Threshold as though they earned at the Low Earnings Threshold (LET); and
- > Treating qualifying carers and people with long-term disabilities who have no earnings above the Lower Earnings Limit as if they had earnings at the level of the LET.

From 2010, a new system of credits will apply. Qualifying carers, people with long-term disabilities or low earners will be treated as though they earned at the LET if a combination of their earnings together with weekly earnings credits for carers and the disabled reach the LEL.

- 15.4.6 The State Second Pension accrues on earnings (actual or deemed) between the LEL and UEL (as for SERPS). However, unlike SERPS, earnings in this range are divided into three bands. Band 1 runs from the LEL to the Low Earnings Threshold (LET). Band 2 runs from the LET to the amount equal to (3 x LET less 2 x LEL), often known as the Upper Earnings Threshold (or UET). Band 3 covers the remaining earnings up to the Upper Earnings Limit. The LET and UET are £13,900 and £31,800 a year respectively in 2009-10. From April 2009, the UEL was replaced by the Upper Accrual Point (UAP) for calculating State Second Pension accrual. The UAP is fixed at £40,040 pa.
- 15.4.7 These bands determine the rate of pension accrual under the State Second Pension: the rate of accrual is double, half and equal to the SERPS accrual rate on earnings in Bands 1, 2 and 3 respectively. This means that for all those who have earnings above the top of Band 2, the pension they earn is broadly the same as that which they would have earned under SERPS. For those with earnings below the top of Band 2, their State Second Pension will be greater than the SERPS they would have earned.
- 15.4.8 People who earn in Band 1 will be treated as though they had earnings at the LET. This creates a significant breakpoint: those earning just below the LEL accrue no State Second Pension, whereas those who earn at the LEL have their pension calculated based on earnings equal to the LET.
- 15.4.9 From 2010-11, Bands 2 and 3 will be merged so that all earnings exceeding the LET up to the UEL will fall into Band 2 and accrue additional pension at 10%. In addition, from April 2012, Band 1 will be replaced with a weekly flat rate accrual amount of £1.50. The earnings-related component will be withdrawn by around 2030.

Additional pension – Spouse's or civil partner's benefits

- 15.4.10 Until October 2002, a widow or widower was able to inherit the whole of the deceased spouse's SERPS pension, subject to the combined pension not exceeding the maximum additional pension (for inheritance purposes) to which an individual could be entitled. From 6 October 2002 (or from 5 December 2005 for civil partners) the maximum percentage of additional pension (subject to the same overall limit) which can be passed on to the surviving spouse or civil partner was reduced to 50%, although special transitional provisions apply for certain groups. In particular, the spouse of anyone who was over *State Pension Age* at October 2002 will continue to inherit 100% of their SERPS pension, while the spouse of those within 8 years of *State Pension Age* at October 2002 will inherit between 60% and 90% of the SERPS pension. The percentage applicable to the State Second Pension is always 50%.

Additional pension – Contracting-out

- 15.4.11 The rate of SERPS and State Second Pension is subject to a contracted-out deduction where a person has been a member of a contracted-out pension arrangement. This is described in the paragraphs below.

15.4.12 Members of occupational pension schemes meeting required conditions may be contracted-out of SERPS/State Second Pension. In that case, both the employees and their employers are allowed a reduction ('rebate') in the rate of National Insurance contributions payable on the band of earnings between the LEL and UAP. The system of contracting out changed from April 1997 based on the provisions of the Pensions Act 1995, and again in April 2002 in order to take into account the introduction of the State Second Pension. Further changes will take effect in April 2012.

Additional pension – Contracting-out – before April 1997

15.4.13 In respect of accruals of pension for periods prior to April 1997, contracted-out defined benefit pension schemes are required to provide Guaranteed Minimum Pensions (GMPs) at age 60 for women and age 65 for men, and to a spouse (or for post-April 1988 accrual a civil partner) on the death of a member. Occupational schemes operating on a defined contribution basis could also be used for contracting out provided the contributions made to the scheme in respect of employees were not less than the amount of the contracted-out National Insurance rebate and provided that the pensions from the scheme satisfied certain requirements.

15.4.14 From April 1988, employees not contracted-out under an occupational pension scheme could choose to contribute to a personal pension arrangement that is approved for the purposes of contracting out. In this case, the individual and their employers will pay the full National Insurance contributions applicable to those who are not contracted-out. A contribution will subsequently be paid by the State into the personal pension arrangement chosen by the individual, equal to the contribution rebate for contracted-out members of occupational pension schemes (together with an allowance for tax relief on the employee's share and in some cases an additional incentive).

15.4.15 The GMPs which schemes have to provide in respect of periods up to April 1997 are broadly equivalent to the SERPS pension that the individual would have earned had they not been contracted-out. SERPS pension payable from the National Insurance Fund is reduced by the amount of any contracted-out deductions (COD) (which is of a similar amount to the GMP) in respect of any period of contracted-out employment. The occupational pension scheme is required to up-rate GMPs accrued after April 1988, when in payment, in line with the increase in prices, up to a limit of 3% each year. No increases are required for GMPs that accrued before April 1988.

15.4.16 For members of defined contribution occupational pension schemes, the SERPS pension payable from the National Insurance Fund is reduced by a COD in respect of the period up to April 1997. This is calculated in the same way as the COD for a member of a contracted-out defined benefit occupational pension scheme (even though there is no GMP in a defined contribution scheme).

15.4.17 A GMP at half of the rate payable to the contributor must be provided by contracted-out defined benefit schemes to surviving widows in respect of accruals from April 1978 and to widowers or surviving civil partners in respect of accruals from April 1988 onwards. Where appropriate, CODs will be deducted from benefits payable from the National Insurance Fund to widows, widowers and surviving civil partners. In the case of surviving spouses or civil partners of members of defined contribution schemes or holders of approved personal pensions, a COD (which may in certain circumstances be equivalent to 100% of the COD for the contributor) will also be deducted from the National Insurance Fund benefit.

Additional pension – Contracting-out – April 1997 to April 2002

15.4.18 A slightly amended system of contracting out operated in the period between April 1997 and April 2002.

15.4.19 Someone who was contracted-out in this period (whether as a member of an occupational pension scheme or an approved personal pension) will not receive any SERPS in respect of these years of accrual. The earnings-related element of their State retirement pension is deemed to be provided in full from the occupational pension scheme or personal pension and these arrangements will be responsible for providing increases in pensions in payment in line with movements in prices, up to a limit of 5% per annum.

15.4.20 In order to be contracted-out, a defined benefit occupational pension scheme did not have to provide a GMP, but rather had to satisfy a minimum quality of benefits test (broadly a pension of one eightieth of earnings for each year of service payable from age 65).

15.4.21 The rules for contracting out via a personal pension remained broadly as they had been prior to April 1997, but the amount of the contributions paid by the State to the individual's pension arrangement became age-related. Similar rules were introduced for contracted-out defined contribution occupational schemes.

Additional pension – Contracting-out – from April 2002

15.4.22 The rules changed again from April 2002 when the State Second Pension was introduced. The rebates in National Insurance contributions for contracted-out members of occupational pension schemes are calculated in the same way as before, reflecting the rates of pension accrual under SERPS. However, such members may also receive a State Second Pension top-up. The top-up is calculated, for each year of accrual for which they are contracted-out, as the difference between what their State Second Pension would be (based on the LET if their earnings are less than this) and their SERPS entitlement, assuming in each case that they were not contracted-out.

Additional pension – Contracting-out – from April 2012

15.4.23 From April 2012, contracting-out for occupational and personal pension schemes on a money purchase basis will be abolished. Members of such schemes will start to build up entitlement to the State Second Pension.

15.5 Bereavement benefits

15.5.1 The bereavement benefits comprise Bereavement Payment, Widowed Parent's Allowance and Bereavement Allowance. The entitlement is based on the contributions paid by or credited to the deceased spouse or civil partner and is broadly subject to similar conditions as for retirement pension before April 2010, adjusted for the actual age of the deceased at death.

15.5.2 For awards from April 2001, bereavement benefits are not awarded after *State Pension Age* and any benefit already in payment is usually converted to retirement pension at *State Pension Age*.

15.5.3 Prior to April 2001, the rules were different; in particular there were no benefits for widowers, and prior to December 2005, there were no benefits for surviving civil partners. Cases in force at April 2001 were transitionally protected and may continue to receive widows' benefits up to age 64.

15.5.4 The following paragraphs describe the main rules governing the benefits payable to widows and widowers who were widowed on or after 9 April 2001, to people whose civil partner died on or after 5 December 2005, and to widowers widowed before April 2001 and who had a child.

15.5.5 Bereavement Payment of £2,000 (this amount is not up-rated each year) is payable immediately on bereavement if the surviving spouse or civil partner is under *State Pension Age* or the deceased spouse or civil partner was under *State Pension Age* or not entitled

to a *Category A* retirement pension. This is followed by Widowed Parent's Allowance of up to £95.25 per week from April 2009 where the widow, widower or surviving civil partner has a qualifying child eligible for, or with underlying entitlement to, Child Benefit. An additional £8.20 per week is paid for the first dependent child and £11.35 per week is paid in respect of each subsequent dependent child of someone in receipt of Widowed Parent's Allowance. Child dependency increases have not been awarded since April 2003, although those in payment at that date were transitionally protected. Reduced rates of benefit are paid where the contribution record is deficient.

15.5.6 Where no Widowed Parent's Allowance is payable, a Bereavement Allowance of up to £95.25 per week from April 2009 is paid, for 12 months only, to those aged between 45 and *State Pension Age* at bereavement. The Bereavement Allowance is payable on a sliding scale of between 30% and 93% of the full rate for those aged between 45 and 54 at bereavement, and at the full rate for age 55 and above. Reduced rates of benefit are paid where the contribution record is deficient.

15.5.7 An earnings-related additional spouse's or civil partner's pension is payable, along with Widowed Parent's Allowance, in respect of earnings on which contributions were paid by the deceased spouse or civil partner since April 1978. This additional pension is calculated in broadly the same way as SERPS or the State Second Pension, but assuming the person reached *State Pension Age* in the year of death. The proportion of the pension inherited by the spouse or civil partner is the same as for retirement pension, which in practice means that most awards of earnings-related additional pension with Widowed Parent's Allowance from October 2002 are 50% of that accrued by the deceased.

15.5.8 No earnings-related spouse's or civil partner's pension is paid with Bereavement Allowance. However a widow, widower or surviving civil partner who has qualified for Widowed Parent's Allowance or Bereavement Allowance, and who has not subsequently re-married, may inherit an additional pension on reaching *State Pension Age*, based on the deceased spouse's or civil partner's contributions, at the appropriate rate between 100% and 50% depending on the deceased spouse's or civil partner's age at October 2002. This is also adjusted for the age at bereavement or cessation of Widowed Parent's Allowance. The additional pension is reduced to reflect any period of contracted-out employment.

15.6 Incapacity Benefit/Employment and Support Allowance

15.6.1 Incapacity Benefit (IB) was replaced by Employment and Support Allowance (ESA) for new claims from 27 October 2008. People in receipt of IB on that date will initially remain entitled to receive IB. However, it is intended that all claimants will be migrated to ESA by 2013.

Incapacity Benefit/ Employment and Support Allowance – Incapacity Benefit (IB)

15.6.2 IB is paid in respect of a claimant who is unable to work because of sickness or disability. IB is paid at three rates:

- > IB short-term lower rate at a personal rate of £67.75 per week from April 2009 for the first 28 weeks, after three waiting days, unless the claimant is an employee in receipt of Statutory Sick Pay (SSP).
- > IB short-term higher rate at a personal rate of £80.15 per week from April 2009 for cases between 29 and 52 weeks and immediately for those transferring from SSP after 168 days (28 weeks), provided they satisfy the contribution conditions.

- > IB long-term rate at a personal rate of £89.80 per week from April 2009 thereafter as long as the claimant satisfies the 'personal capability assessment' and is under *State Pension Age*. For claimants who are aged under 35 at the start of the incapacity an age addition of £15.15 per week from April 2009 will be paid and for those aged 35 to 44 an addition of £7.60 per week from April 2009 will be paid.

15.6.3 Increases may be paid with IB for an adult dependant who is caring for a dependent child or is aged 60 or over, provided their earnings are less than the adult dependency addition. The rate is £41.35 per week from April 2009 for claimants on the short-term rates, and £53.10 per week from April 2009 for those on the long-term rate. Child dependency increases may also be paid, but these have not been awarded since April 2003, although those in payment at that date were transitionally protected.

Incapacity Benefit/ Employment and Support Allowance – Employment and Support Allowance (ESA)

15.6.4 ESA consists of two phases:

- > the assessment phase: a lower benefit rate is paid for the first 13 weeks of a claim while a Work Capability Assessment is undertaken
- > the main phase: a higher rate is paid from week 14 for those whose entitlement is confirmed in the Work Capability Assessment.

There are two groups within the main phase:

- > Work-Related Activity Group
- > Support Group.

15.6.5 People placed in the Work-Related Activity Group will receive support to help them return to work. This normally includes an interview with a personal adviser to consider future work prospects. They must also attend any work-focused interviews arranged for them.

15.6.6 People placed in the Support Group are those with serious illnesses or disabilities. They are not expected to return to work.

15.6.7 The Work Capability Assessment determines whether a claimant will join the Work-Related Activity Group or Support Group, or whether they are capable of working without difficulty (and so not entitled to ESA).

15.6.8 The rates of ESA from April 2009 are:

- > assessment phase: £64.30 per week (£50.95 per week for under 25s)
- > Work-Related Activity Group: £89.80 per week
- > Support Group £95.15 per week.

Special rules apply for 16 to 19 year olds and students aged under 25.

15.7 Jobseeker's Allowance

- 15.7.1 The rate of contributory Jobseeker's Allowance is £64.30 per week from April 2009 for those aged 25 and over and £50.95 for those under 25. Class 1 contributions at the level of 25 times the Lower Earnings Limit must have been paid in at least one of the last two contribution years before the claim, and both years must be qualifying years by virtue of contributions and/or credits. From October 2010 the first of these conditions will change. The claimant will need to have paid, or be treated as having paid, at least 26 weeks of Class 1 contributions on relevant earnings at the Lower Earnings Limit in one of the two tax years prior to the claim.
- 15.7.2 The benefit is payable after 3 waiting days for up to 6 months in any 2 year period of interruption of employment in a single spell or linked spells, provided the contribution and other conditions are satisfied. After benefit has been paid for 6 months it cannot be paid again until the claimant has re-qualified by working as an employee for at least 16 hours in each of at least 13 weeks in the 26 weeks before benefit is reclaimed and is based on a later contribution period.

15.8 Guardian's Allowance

- 15.8.1 This allowance is payable at the rate of £14.10 per week per child in 2009-10, to a person who provides a home for, or maintains, a child whose parents are both dead. In certain circumstances only one parent needs to have died. There are no contribution conditions but there is a residence test, and the guardian must be entitled to (or treated as being entitled to) Child Benefit in respect of the child.
- 15.8.2 Child Special Allowance (formerly paid in respect of children of divorced couples where the father has died) ceased in 2001.

15.9 Christmas bonus for pensioners

- 15.9.1 This £10 Christmas bonus (which is not increased each year) is an annual tax-free payment and is paid with the qualifying benefit in the first week of December. It is paid to individuals present or ordinarily resident in the UK or any other EU member state, who are entitled to either retirement pension, Widowed Parent's/Mother's Allowance, Widow's Pension, long-term rate Incapacity Benefit, or main phase of Employment and Support Allowance in the first week of December. Christmas bonus is also paid to recipients of certain other benefits, such as Disability Living Allowance and war widows pensions, although no allowance has been made for this since, in these cases, the bonus is not paid from the National Insurance Fund.
- 15.9.2 In 2008-09 an additional tax-free amount of £60 was paid.

15.10 Statutory Sick Pay and Statutory Maternity Pay

- 15.10.1 Statutory Sick Pay (SSP) and Statutory Maternity Pay (SMP) are paid by the employer direct to employees who satisfy the conditions for eligibility. Some SSP payments, and most of SMP (all payments in the case of small employers) are then recovered by the employer by reducing the amount of National Insurance contributions to be paid. The benefits replace Incapacity Benefit and Maternity Allowance for most employees. In the National Insurance Fund accounts they are treated as deductions from contributions and are shown as such in the tables of projected income and expenditure in this review. As a result of the introduction of the transfer from the Consolidated Fund to offset recoveries made by employers in respect of SSP and SMP, the amounts of these benefits have no effect on the finances of the National Insurance Fund itself.

15.10.2 Most people who work for an employer and earn enough to pay Class 1 National Insurance contributions, including women who have opted to pay reduced rate contributions, will receive SSP from their employers for up to 28 weeks during a period of interruption of work. There are a number of groups of employees excluded from the SSP scheme and such employees may be entitled to Incapacity Benefit or Employment and Support Allowance. Following a full period of 28 weeks in receipt of Statutory Sick Pay, an employee should be able to claim Incapacity Benefit or Employment and Support Allowance. The rate of SSP is £79.15 per week from April 2009.

15.10.3 SMP is paid by employers to women expecting a child who have been in their employment for a continuous period of at least 26 weeks up to the 15th week before the expected week of birth, and have average weekly earnings that equal or exceed the Lower Earnings Limit. SMP is payable for up to 39 weeks commencing at the earliest 11 weeks before the week the baby is due.

15.10.4 There are two rates of SMP. The first six weeks are paid at 90% of the employee's average earnings. The remaining weeks are paid at the lower of the flat-rate and 90% of earnings. The flat-rate is £123.06 per week from April 2009.

15.11 Statutory Adoption pay and Statutory Paternity Pay

15.11.1 Statutory Adoption pay is payable for up to 39 weeks subject to similar eligibility conditions as Statutory Maternity Pay. The rate is the same as for the second period of SMP.

15.11.2 Statutory Paternity Pay is payable for up to 2 weeks. The rate is the same as for Statutory Adoption Pay.

15.12 Maternity Allowance

15.12.1 Maternity Allowance is paid to a woman expecting a child who has stopped work provided she has worked as an employee, with earnings over £30 per week but is not entitled to Statutory Maternity Pay, or has worked as a self-employed person, for at least 26 weeks in the 66 weeks ending with the week before the expected week of childbirth. The allowance is payable for a maximum of 39 weeks, starting at the earliest 11 weeks before the baby is due.

15.12.2 The amount payable for 2009-10 is £123.06 per week or, if lower, 90% of weekly earnings with a minimum of £27 per week for those earning at the Maternity Allowance Threshold (MAT) which is £30 a week from April 2009. Those who are self-employed and pay Class 2 contributions qualify for the standard rate. Those who hold a Small Earnings Exception certificate are treated as earning at the MAT.

16 Appendix D Summary of methods and assumptions adopted

16.1 Introduction

16.1.1 This Appendix summarises the methods and assumptions used in deriving the estimates of income and expenditure in this report.

16.1.2 It contains the following sections:

16.2 A summary of *principal assumptions* and *variant assumptions*

16.3 Summary charts illustrating the *principal* and *variant demographic assumptions*

16.4 An explanation of the economic assumptions and the rationale underlying their adoption

16.5 An explanation of the workforce assumptions and the rationale underlying their adoption

16.6 A short description of the methods used, with supplementary commentary on any specific aspects of applicable assumptions, in relation to the projection of:

16.6.2: benefit expenditure in general

16.6.3: National Insurance contributions

16.1.3 A description of the method and assumptions used in relation to the projection of specific items of expenditure can be found in Appendix E.

16.1.4 Further details of the demographic assumptions used are set out in Appendix F.

16.1.5 The figure on the following page sets out a brief summary of the *principal assumptions* and the *variant assumptions* used for this review.

16.2 Summary principal assumptions and variant assumptions

16.2.1 The table below summarises the *principal assumptions* and *variant assumptions* used for this review, together with the *principal assumptions* used for the previous review.

Figure D1 Summary of principal assumptions and variant assumptions used for the review compared to principal assumptions adopted at the previous review

Item	Principal assumptions (2000)	Principal assumptions (2005)	Variant assumptions (2005)
Demographic			
UK population projections (fertility, migration, mortality, proportions married)	Principal GAD interim 2001-based national projections ¹	Principal ONS 2006-based national projections ²	> High and low fertility, migration, mortality. > 'Young' and 'old' variants ³
Economic			
Long-term price inflation (RPI)	2.5% pa	2.87% pa	No variants
Price/earnings up-rating	Results shown on both prices and earnings up-rating.	In line with current announced practice (a mixture of prices and earnings – see paragraph 16.4.10)	> All with prices > All with earnings
General earnings growth (real)	1.5% pa and 2% pa	1.5% pa and 2% pa	1% pa and 2.5% pa (by extrapolation)
Investment return on notional fund (real)	3.5% pa	2% pa	No variants
Workforce			
Labour market participation	Based on Labour Force survey 2001/02. Age and sex related. Broadly stable throughout projection period. Unemployment constant at around 5%.	HMT cohort model with allowance for SPA changes. Age and sex related. Broadly stable throughout projection period. Unemployment constant at around 5%	Unemployment increased or reduced by 50%
Contracting-out proportions	Based on previous review with broad adjustments for future trends. Broadly 50% reduction in money purchase contracting-out and 25% reduction in salary-related contracting-out by around 2040.	As agreed with DWP. Money purchase contracting-out ceases in 2012. Salary-related contracting-out declines so that total rebates fall from around 9% of contributions in 2010-11 to around 3% in 2030-31 and remain at around 3% until 2070-71.	As per principal assumption until 2022 when all contracting-out ceases
Other variant assumptions			
Incapacity benefit/employment and support allowance	Assumed expenditure rates and movements between benefit categories based on past data (described in Section 17.7)		50% reduction or 50% increase in total expenditure phased in over 15 years

¹ Responsibility for producing national population projections transferred from GAD to ONS in 2006.

Details of the 2001-based principal projections can be found at the following weblink

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2001&v=Principal>

² Details can be found at the following weblink:

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>

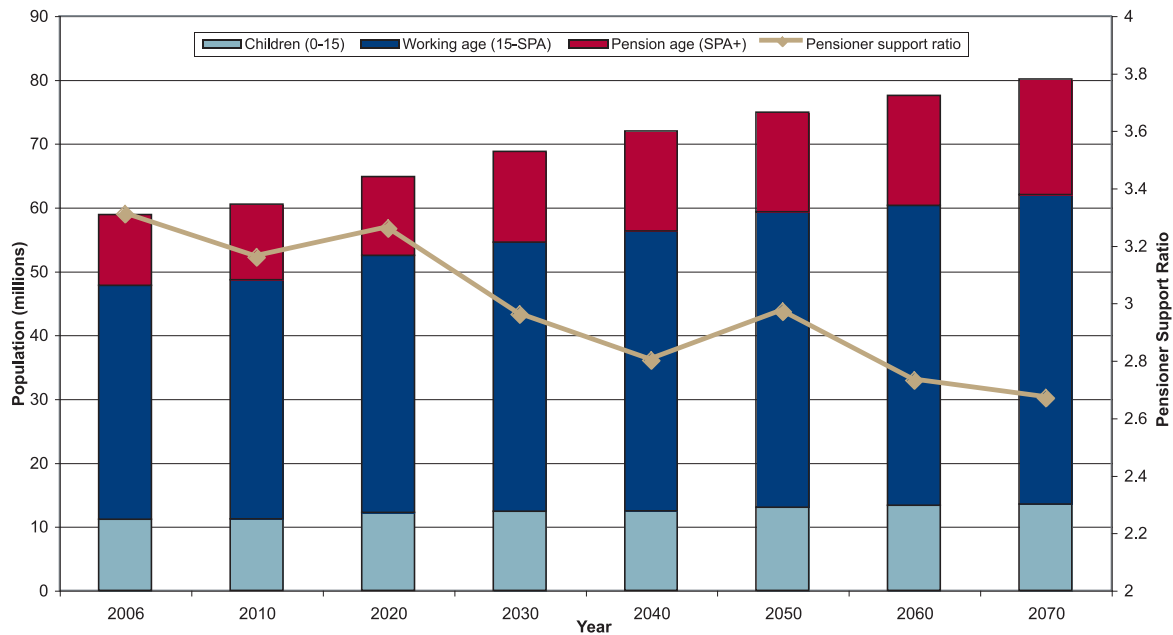
³ Details can be found at the following weblink:

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

16.3 Summary of demographic assumptions

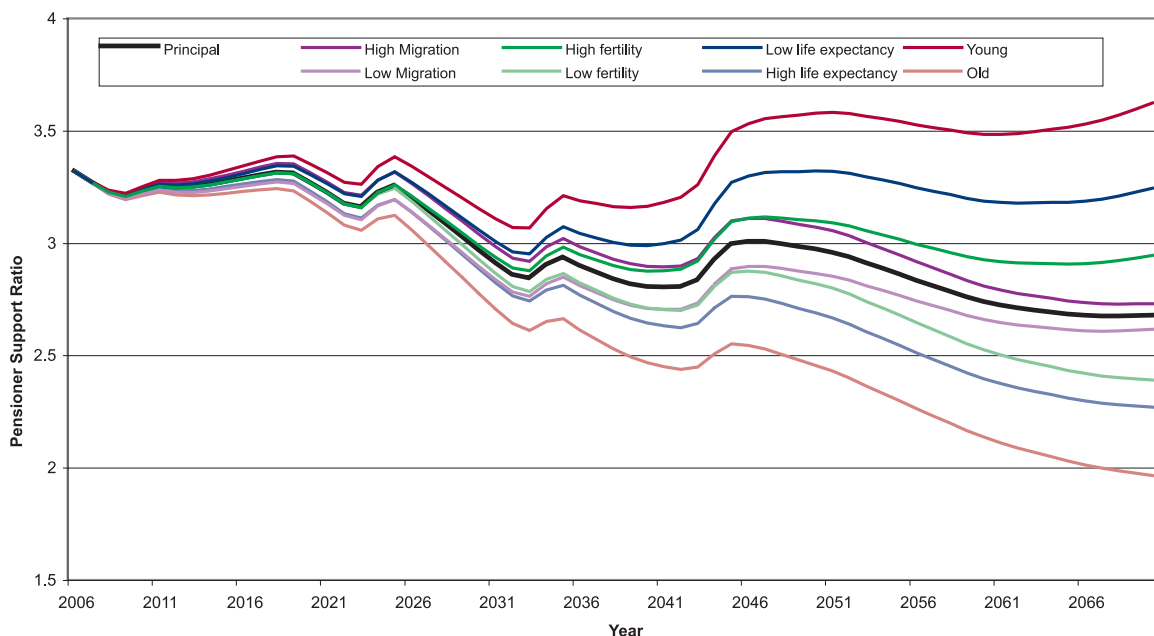
16.3.1 The bar chart below shows the projected population of Great Britain up to 2070 under the *principal demographic assumptions*, sub-divided into children, those of working age and pensioners (over *State Pension Age*). The line on the chart shows the pensioner support ratio, which is the number of individuals of working age for each pensioner in the population. Broadly, a lower pensioner support ratio means that Fund benefits cost more as a percentage of the pay of the working population.

Figure D2 Projected population of Great Britain under *principal demographic assumptions*



16.3.2 The chart below shows the projected pensioner support ratio under the *principal* and *variant demographic assumptions* used in this review up to 2070.

Figure D3 Projected pensioner support ratio under *principal* and *variant demographic assumptions*



16.4 Rationale for principal economic assumptions

16.4.1 The main assumptions included within the *principal economic assumptions* used in this review are set out in the following figure.

Figure D4 Main economic assumptions used for the review

Item	Assumption
Price inflation (RPI)	2.87% per annum
Real earnings growth	1.5% per annum and 2.0% per annum
Real investment return	2% per annum
Real GDP growth	In proportion to earnings growth and workforce size
Up-rating of benefits and limits	In line with current announced practice

Rationale for principal economic assumptions – Price inflation of 2.87% pa

16.4.2 The assumed rate of price inflation (RPI) is not an important assumption and it does not materially affect the results of the review. This is because nearly all items of income and expenditure are linked directly or indirectly to price inflation and the results have been expressed in constant price terms. The assumption of 2.87% pa was agreed by the government stakeholders (HM Treasury, DWP and HMRC) as being reasonable for the purpose of this review.

Rationale for principal economic assumptions – Real earnings growth of 1.5% and 2% pa

16.4.3 It is the difference between the assumed levels of earnings inflation and price inflation which is important, rather than their absolute levels. 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
- > benefit expenditure is currently expected to grow in line with prices, with the exception of the basic retirement pension from 2012.

16.4.4 The higher the assumed rate of real earnings growth, the lower will be the required contribution rates shown by the review. A relatively small change in assumed future real earnings growth can have a large impact on the projected future contribution rates to the National Insurance Fund. (For simplicity, this discussion ignores other factors such as demographic changes and scheme maturity.)

16.4.5 The historical rate of real earnings growth over the last 50 years has been variable: there are some periods of high growth (in excess of 2% per annum) and other periods of much lower growth (less than 1.5% per annum). In view of this historic variation, and the importance of the assumption, the principal results in Section 4 include two sets of figures: one assuming future real earnings growth will average 1.5% per annum and another assuming 2% per annum.

16.4.6 Over the last decade, average real earnings growth has fallen outside this range (between 0.75% and 1% pa). However, there have been similar periods of short-term lower earnings growth in the past and as yet there is no long-term track record of real earnings growth at this level. Nonetheless, real earnings growth could fall outside the range 1.5% to 2% pa. In this review we show on an approximate basis (by extrapolation) the impact of real earnings growth of 1% pa or 2.5% pa on the projections).

16.4.7 If the recent level of average real earnings growth continues in future, then the impact of lower earnings growth on the progress of the Fund will be investigated in more detail at subsequent reviews.

Rationale for principal economic assumptions – Investment return of 2% pa (in real terms)

16.4.8 An assumption about the investment return is needed in order to make projections of the balance of the National Insurance Fund. However, this assumption is not significant to the results of the review. It does not affect either the projected expenditure or the projected pay-as-you-go contribution rates required to balance income and expenditure in each year. The assumption of a return, over the long term, of 2% per annum above price inflation is broadly consistent with the return earned on the Fund in recent years and is also a broadly reasonable assumption for the long-term yield on index-linked gilts having regard to experience in other countries. Importantly, this assumption relates to the long term (50 years or more), and it may be that from time to time the returns available in the market depart from this long-term assumption. If the assumed real return was 1.5% above inflation, then the projected Fund balance in 2070-71 (in 2009-10 price terms) would be around £670 billion (compared to £1,000 billion on the *principal assumptions*) assuming 2% pa real earnings growth.

Rationale for principal economic assumptions – Real GDP growth (equal to earnings growth adjusted for changes in workforce)

16.4.9 Some figures are shown as a percentage of gross domestic product (GDP). A base GDP of £1,420 bn has been used for 2007-08 (outturn figure published in the 2009 Budget report). In this review it has been assumed that GDP will increase thereafter in proportion to earnings growth and workforce size. This is consistent with the approach used by HM Treasury in its long-term public finance projections.

Rationale for principal economic assumptions – Up-rating of benefits and limits (in line with current announced practice)

16.4.10 The main projections for the review have been carried out based on current announced practice. In addition, variant projections are shown on two bases: price up-rating and earnings up-rating. The table below describes these up-rating approaches.

Figure D5 Up-rating of benefits and limits

Scenario	Up-rating of benefit rate	Up-rating of earnings limits and thresholds
Principal projection (current announced practice)	All with prices, except basic retirement pension with earnings from 2012	LEL with prices LET with earnings Thresholds and limits for National Insurance contributions with earnings
Variant projection: price up-rating	All with prices (RPI)	LEL with prices LET with earnings Thresholds and limits for National Insurance contributions with prices
Variant projection: earnings up-rating	All with earnings, except additional retirement pension with prices	All with earnings

In each case, the review has allowed for the actual rates of benefit and earnings limits up to and including 2009-10 (and 2010-11 where the impact is material). For subsequent years the benefits and earnings limits have been increased in line with prices or earnings as described above.

- 16.4.11 The contracted-out deduction (COD) in calculating SERPS entitlements for those contracted-out between April 1988 and April 1997 is increased after *State Pension Age* in line with prices up to a maximum of 3% each year. For this review, it has been assumed that these CODs would increase by 2.5% per annum on average. This is slightly less than the assumed rate of price inflation of 2.87% per annum, reflecting the fact that in some years inflation will exceed 3%, and therefore on average the COD will increase by less than prices.
- 16.4.12 Certain benefits are up-rated by the 'Rossi' index (RPI excluding rent, mortgage interest payments, council tax and depreciation costs). It has been assumed that this index will increase by 2.4% pa.

16.5 Rationale for workforce assumptions

The main workforce assumptions included within the *principal assumptions* are as follows:

- > Numbers of jobs
- > Numbers contracted-out of the State Second Pension.

These are described in the following paragraphs.

Rationale for workforce assumptions – Numbers of jobs (based on past data and economic activity)

- 16.5.1 The projected number of jobs in future years is obtained by taking past data on jobs from the Labour Force Survey and varying this in line with the changes in the number of economically active individuals excluding the number unemployed.
- 16.5.2 Future numbers of economically active individuals have been based on the HM Treasury model of labour market participation. This model is also used by HMRC and DWP. It adopts a cohort approach. Allowance has been made for changes in *State Pension Age* to affect labour market participation at higher ages. The labour market participation rates are applied to the population projection numbers to give the economically active population.

16.5.3 The economically active population comprises all people in employment or self-employment, whether full-time, part-time or in training schemes, as well as the unemployed who are seeking work. A summary of the assumed percentages economically active is as follows:

Figure D6 Percentages of workforce assumed to be economically active

	2008-09	2010-11	2020-21	2030-31	2008-09	2010-11	2020-21	2030-31
Age group	Men				Women			
20-24	81%	81%	81%	81%	70%	70%	70%	70%
30-34	94%	93%	92%	92%	76%	75%	75%	75%
40-44	93%	92%	92%	90%	80%	79%	81%	81%
50-54	87%	87%	87%	86%	77%	77%	76%	78%
60-64	57%	56%	56%	59%	34%	34%	48%	50%
65-69	21%	22%	20%	25%	12%	13%	16%	21%

16.5.4 In projecting the number of jobs, it was assumed that the rate of unemployment would average about 5% of the economically active population.

16.5.5 In order to derive the numbers of contributors from the numbers employed and self-employed it is necessary to exclude those for whom no contributions are payable. In the main, these are employed people with earnings below the Secondary Threshold¹ (who are mainly part-time workers) and the self-employed with earnings below the Small Earnings Exception level. The estimated future number of contributors therefore depends on the assumed basis of up-rating benefits and earnings limits as this affects the level of the Secondary Threshold and Small Earnings Exception.

16.5.6 Figure D7 shows estimates of future numbers of jobs for which contributions are payable, on the assumption that the earnings limits are raised in line with current announced practice and that real earnings grow at 2% per annum. If earnings limits were raised with prices, the number of contributors would be higher by about 0.6 million in 2020 and by about 2.9 million in 2060.

Figure D7 Projected numbers of jobs for which contributions are payable, assuming earnings limits are increased in line with current announced practice and real earnings grow at 2% per annum (millions)

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
	(millions)	(millions)	(millions)	(millions)	(millions)	(millions)	(millions)	(millions)
Employees:								
Men	12.6	13.0	13.4	13.7	14.3	14.8	15.1	15.6
Women	10.5	10.9	11.5	11.8	12.2	12.6	12.8	13.2
Total	23.1	23.9	24.9	25.5	26.6	27.4	27.9	28.8
Self-employed:								
Men	2.2	2.3	2.4	2.5	2.6	2.8	2.8	2.9
Women	0.6	0.6	0.7	0.8	0.8	0.8	0.8	0.9
Total	2.8	2.9	3.1	3.2	3.4	3.6	3.7	3.8
Voluntary contributors	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total	26.1	27.0	28.2	28.9	30.1	31.2	31.7	32.7

¹ Although employers only pay contributions for employees whose earnings exceed the Secondary Threshold (£110 per week in 2009/10), employees will accrue benefits if they have earnings over the Lower Earnings Limit (£95 per week in 2009/10).

Rationale for workforce assumptions – Numbers contracted-out (based on phased decline in salary-related contracting-out)

16.5.7 We have made assumptions relating to the proportions of employees who are contracted-out of S2P. These reflect a phased decline in contracting-out through private sector salary-related pension schemes (COSRs) over the period to 2070-71 as a result of job changers not being able to join new schemes and scheme closures to future accruals. Broadly steady numbers are assumed to be contracted out via public sector COSRs. We have allowed contracting-out to extend to higher ages as the *State Pension Age* is increased. An extract of the assumed COSR proportions – public sector and private sector combined – is set out below.

Figure D8 Assumed proportions of workforce in contracted-out salary-related pension schemes

	2008-09	2010-11	2020-21	2030-31	2008-09	2010-11	2020-21	2030-31
Age	Men				Women			
22	7%	7%	7%	7%	10%	10%	11%	11%
32	19%	17%	13%	13%	31%	29%	26%	26%
42	29%	26%	18%	17%	42%	41%	35%	34%
52	37%	34%	23%	19%	46%	44%	39%	37%
62	26%	24%	19%	16%	0%	0%	32%	25%

16.5.8 It has been assumed that contracting out on a money purchase basis through contracted-out money purchase schemes (COMPS) and appropriate personal pensions (APP) will cease from 2012. We have made a small adjustment to the rate of decline in COSR contracting out to reflect some transfers from contracted-out mixed benefit (COMB) schemes to COSR schemes in 2012.

16.5.9 The Department of Work and Pensions currently intends to review contracting-out in relation to occupational pension schemes no later than 2017. This review could have a number of possible outcomes. To illustrate sensitivity we have shown the impact of all contracting-out ceasing in 2022. We note that this is only one of the possible outcomes of the review, and that the date 2022 has been selected to reflect the earliest possible date for implementing a decision if the review were to take place in 2017.

16.6 Methods used and supplementary commentary on specific assumptions

16.6.1 This section sets out a short description of the methods used, with supplementary commentary on specific assumptions in relation to the projection of:

- 16.6.2 Benefit expenditure in general
- 16.6.3 National Insurance Contributions

16.6.2 Benefit expenditure in general

16.6.2.1 Benefit expenditure is estimated separately for each of the main contributory benefits, and separately for the basic flat-rate and the additional (*SERPS* and *State Second Pension*) elements. In all cases, allowance has been made for recent legislative changes including those made after 5 April 2005 as described in Section 12.

16.6.2.2 In general, for flat-rate benefits, numbers are estimated from recent data on beneficiaries, projected forward with allowance for awards and cessations in future years based on past experience, and taking into account demographic factors. The average rate of benefit is projected based on past data and observed trends, making allowance for dependency.

16.6.2.3 Additional pensions are projected in a slightly different way, by considering the earnings on which Class 1 *National Insurance contributions* have been and will be paid, and by projecting up to *State Pension Age*, allowing for mortality.

16.6.2.4 For retirement pension, incapacity benefits and bereavement benefits, adjustments are applied to align the estimates for recent years with statistical data.

16.6.3 ***National Insurance contributions***

16.6.3.1 The method adopted for projecting contributions is summarised below:

- > project the numbers of economically active individuals (by age and by sex)
- > use this to derive the number of jobs for employees and the self-employed
- > split employees and the self-employed further into those liable to pay contributions and others, to give the *numbers and profile of contributors*
- > project the *numbers and profile of those contracted-out of S2P*
- > project the *distributions of earnings* for contributors and separately for those contracted-out
- > use the numbers, profiles and earnings distributions to project the *National Insurance contributions received and contracted-out rebates*

More details of these steps are set out in the following paragraphs.

16.6.3.2 Estimates of future contribution income are derived separately for each contribution class. Actual known receipts in recent years are used to adjust modelled estimates for future years.

16.6.3.3 In the case of *Class 1 National Insurance contributions*, separate projections were performed for gross contributions and contracted-out rebates. A simpler approach was adopted for the less significant contribution classes. Class 1A and Class 1B contributions were based on information provided by the Inland Revenue and this was projected forward in line with the growth in earnings and employee jobs. Class 3 contributions were estimated by taking past data on amounts received and projecting forward in line with changes in the rate of Class 3 contributions and population numbers at working ages.

Projecting National Insurance contributions – Assumptions regarding average earnings

16.6.3.4 In obtaining estimates of future contribution income, it is important to have regard to the distributions of earnings, so that allowance can be made for the effect of changes in the earnings limits relative to the level of earnings. Information on earnings from the Annual Survey of Hours and Earnings (ASHE) was used to construct separate distributions by age for men and women. The estimated average weekly earnings in 2009-10 terms is shown in Figure D9. The averages apply to all employees including those with earnings below the Primary Threshold who are not required to pay contributions. Real earnings growth in future was taken to apply to each category of contributor and throughout the whole of each earnings distribution.

16.6.3.5 Separate earnings distributions, based on analyses of the ASHE data, were used for the estimates of future contracted-out rebates for employees who are contracted-out through occupational pension schemes. Figure D9 also shows the assumed average earnings of those contracted-out on a salary-related basis and it can be seen that these figures are higher than the overall averages for all employees.

Figure D9 Assumed average weekly earnings for all employees and for members of contracted-out salary-related (COSR) occupational pension schemes in 2009-10

	Men	Women
All employees	£572	£339
COSR scheme members	£823	£513

16.6.3.6 The assumed future earnings on which rebates in respect of contracted-out personal pensions and stakeholder plans are payable were also based on the ASHE information, adjusted to allow for data on the amount of rebates paid to appropriate personal pension holders up to 2008-09, being the latest data that is currently available. It was assumed that the age and sex specific earnings would remain constant in future relative to average earnings.

16.6.3.7 The contributions from the self-employed consist of the Class 2 flat-rate weekly contribution and the Class 4 contribution, which is a percentage of relevant profits. The income from Class 4 contributions was derived using a distribution of relevant profits (based on the Inland Revenue's survey of personal incomes). Relevant profits were assumed to grow in line with the assumed real earnings growth. Income from Class 2 was calculated in a similar way: the profits distribution was used to determine what proportion of the assumed number of self-employed have profits above the Small Earnings Exception (and are therefore liable to pay the flat-rate Class 2 contributions).



17 Appendix E Methods and assumptions for specific items of expenditure

17.1 Introduction

17.1.1 This Appendix summarises the methods and assumptions used for specific items of expenditure in this review.

17.1.2 It contains the following sections:

- 17.2 Basic Retirement Pension
- 17.3 Graduated Retirement Pension
- 17.4 Additional pension (SERPS and State Second Pension)
- 17.5 Contracted-out deduction
- 17.6 Bereavement benefits
- 17.7 Incapacity Benefit/Employment and Support Allowance
- 17.8 Jobseeker's Allowance
- 17.9 Guardian's Allowance
- 17.10 Christmas bonus for pensioners
- 17.11 Statutory Sick Pay
- 17.12 Statutory Maternity Pay
- 17.13 Statutory Adoption pay and Statutory Paternity Pay
- 17.14 Maternity Allowance
- 17.15 Adult dependency increases
- 17.16 Child dependency increases
- 17.17 Redundancy payments
- 17.18 Administration costs
- 17.19 Other income and expenditure.

17.2 Basic Retirement Pension

17.2.1 The projected future numbers of basic retirement pensioners resident in Great Britain were obtained by applying factors to the numbers in the 2006-based population projection at the relevant ages. For those retiring after April 2010, the changes in eligibility conditions introduced in the Pensions Act 2007 have been allowed for, resulting in an increase in numbers projected to receive this benefit. Announced changes to *State Pension Age* from 65 to 68 between 2024 and 2046 have also been reflected.

17.2.2 The estimated expenditure on basic retirement pension was then obtained by multiplying the projected number of recipients by the estimated average amounts of basic retirement pension. In doing this, the first stage is to calculate the future cost in respect of those already retired (allowing for future deaths), who are in receipt of known amounts of pension.

17.2.3 For men resident in Great Britain, it has been assumed that 100% of those in the population reaching *State Pension Age* in each future year after 2010 will be eligible for retirement pension, including those who defer their pension beyond *State Pension Age*. For men retiring in 2010-11, excluding deferrers, the mean rate of pension is assumed to be 98% of the standard basic retirement pension. This percentage is assumed to fall slightly, reaching 97% in 2026 and stabilising at this level.

- 17.2.4 The position is more complicated for women since it is necessary to make allowance for changes resulting from the increasing number of women who are economically active, the introduction of Home Responsibilities Protection and the phasing out of the married women's reduced rate contribution option¹, as well as the Pensions Act 2007 changes. The result of this will be that increasing proportions of women will be entitled to retirement pension on their own contribution record rather than relying solely on that of their husband, and the average rate of pension will increase. As a result, increasing proportions of women will become eligible for some retirement pension based on their own contributions when they reach *State Pension Age* (rather than having to wait until their husband retires).
- 17.2.5 The assumed proportions of all women reaching *State Pension Age* who are entitled to some retirement pension, and their average rate of pension as a percentage of the standard basic retirement pension rate, is shown in Figure E1. The proportions shown exclude women who are not entitled to any retirement pension at *State Pension Age*, but who will become entitled to a pension upon their husband reaching *State Pension Age*, if they are married. Similarly, the average rate of pension may increase during retirement, above that shown in the Figure, as a result of the husband reaching *State Pension Age* or dying.

Figure E1 Assumed average percentage of all women at *State Pension Age* who are entitled to retirement pension and their mean rate of pension as a percentage of the standard rate

Financial year of reaching <i>State Pension Age</i>	% with entitlement	Mean pension amount as % of standard rate
2008-09	99%	85%
2010-11	100%	90%
2020-21	100%	98%
2030-31	100%	99%
Ultimate	100%	98%

- 17.2.6 The principal reasons for the trend over time shown in Figure E1 relate to the assumed changing entitlements of married women. Figure E2 shows the equivalent assumptions for married women only rather than for all women. In addition, the Figure shows the assumed percentages of married women with at least some pension on the basis of their own, rather than solely their husband's or deceased husband's, contribution record, and their total mean rate of pension.

¹ Only married women who were paying the reduced rate of contributions in 1977 retained the right, under certain conditions, to continue to pay such contributions.

Figure E2 Assumed average percentage of married women at *State Pension Age* who are entitled to retirement pension and their total mean rate of pension as a percentage of the standard rate, separately for all married women and for married women with at least some own entitlement

Financial year of reaching <i>State Pension Age</i>	All married women		Married women with at least some own entitlement	
	% with any entitlement	Mean pension amount as % of standard rate	% with some own entitlement	Mean pension amount as % of standard rate
2008-09	99%	81%	91%	73%
2010-11	100%	87%	97%	85%
2020-21	100%	98%	100%	98%
2030-31	100%	99%	100%	99%
Ultimate	100%	98%	100%	98%

17.2.7 It should be noted that the projected changes to women's entitlement only affect the numbers of women in receipt of retirement pension at younger ages, mainly under age 70. This is because, in most cases, they would in any case have become entitled to some pension once their husbands reach age 65 or they become widows.

17.2.8 Projections have also been made to allow for retirement pensions paid to non-residents. It has been assumed that, reflecting recent trends, the percentage of the amount of all retirement pensions that are paid to non-residents will rise from around 4% to around 5% by 2070.

17.2.9 An allowance has been made for around 1% of individuals to defer receipt of pension beyond *State Pension Age* (reducing to around 0.5% by 2046). This results in some deferral of expenditure (but is not expected to materially affect the Fund's long-term financial position).

17.2.10 The estimated total numbers of men and women in receipt of flat-rate basic pensions in future, including people overseas, are shown in Figure E3 below.

Figure E3 Projected future numbers of basic retirement pensioners

Millions	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Men	4.2	4.4	5.6	6.6	7.2	7.2	8.0	8.6
Women	7.1	7.2	6.6	7.7	8.5	8.5	9.2	9.6
Total	11.3	11.6	12.3	14.2	15.7	15.6	17.2	18.2

17.2.11 In spite of the projected increase in the proportion of women who are entitled to basic pensions on their own contribution records, the number of male pensioners increases at a faster rate than for women. This is due chiefly to the increase in *State Pension Age* for women which is being phased in between 2010 and 2020 and the increase in *State Pension Age* for both men and women being phased in between 2024 and 2046. It can be seen from the above figure that the number of female pensioners is expected to fall over this period.

17.3 Graduated retirement benefit

17.3.1 Estimates of expenditure on graduated benefit have been based on the numbers of graduated units earned between 1961 and 1975. An estimated adjustment was made to allow for units of deceased men inherited by their widows who were under *State Pension Age* at April 1975 and which would not come into payment until the widow reaches *State Pension Age*. Allowance has been made for mortality using population mortality rates modified slightly to allow for the lighter mortality experienced by recipients of graduated pension. Allowance is made for the inheritance of graduated units by widows and, from 1979, by widowers and, from 2005, by surviving civil partners. Units in respect of people under *State Pension Age* were assumed to be put into payment at *State Pension Age*. The graduated unit rate is increased in line with prices.

17.4 Additional pension (SERPS and State Second Pension)

17.4.1 Additional pension comprises SERPS which accrued from April 1978 to April 2002 and the State Second Pension that has accrued since April 2002. Employees who are members of a contracted-out pension arrangement forgo all or part of their additional pension, which is deemed to be replaced by the pension from the contracted-out pension scheme. Projections are carried out in two stages:

- > first ignoring contracting-out
- > then calculating and applying a deduction (the contracted-out deduction or COD) for the part of the additional pension given up by being contracted-out.

Allowance is made for the changes to the additional pension introduced by the Pensions Act 2007.

17.4.2 The additional pension at award was calculated by first allowing for revalued earnings factors for each year and modified population mortality rates. For past years, the revalued earnings factors were based on actual earnings data and for future years the earnings factors were consistent with the earnings used in projecting Class 1 contribution income. Allowance was also made for accruals of credited earnings from 2002/03 onwards. The total additional pension at award in each future financial year was then calculated by multiplying the total revalued earnings factors by the relevant accrual rates. The projected expenditure in each future year from these amounts of new awards is then derived each year by allowing for mortality and survivors' benefits, taking account of inheritance provisions.

17.4.3 Figure E4 shows the amount of new awards of additional pension in selected years, per person in the population reaching *State Pension Age*, assuming that the indexation of the Lower and Upper Earnings Limits is in line with prices or with earnings. The amounts shown are therefore not the same as average awards per beneficiary, as not everyone in the population will be entitled to additional pension and because some additional pension will be paid to overseas pensioners. Amounts are before the application of contracted-out deductions. In time, awards will reduce as a result of the changes in State Second Pension accrual towards a flat-rate system by around 2030. Overall average awards are larger when earnings limits are indexed in line with prices rather than with earnings, as the amount of pension accrued by those deemed to be earning at the Low Earnings Threshold is relatively larger in this case.

Figure E4 New awards of gross additional pensions, per person in the population reaching *State Pension Age* in selected financial years, assuming real earnings growth of 2% per annum, excluding inherited amounts

Financial year of reaching pension age	Current practice			Limits up-rated in line with prices			Limits up-rated in line with earnings		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
£ per week, 2009-10 price terms									
2008-09	68	25	44	68	25	44	68	25	44
2010-11	72	15	42	72	15	42	72	15	42
2020-21	84	45	64	87	47	66	87	46	66
2030-31	88	62	75	91	64	77	91	63	76
2040-41	103	83	92	105	86	95	105	83	93
2050-51	128	114	121	132	118	125	131	112	121
2060-61	152	135	143	157	139	148	155	131	143
2070-71	178	167	173	184	173	179	181	160	170

17.4.4 The number of pensioners entitled to additional pensions is not modelled explicitly, as the earnings factors on which additional pensions are calculated are projected forward rather than the number of pensioners. However, the numbers in receipt of additional pensions will continue to increase rapidly over the next few years (reflecting the fact that additional pension only started to accrue since April 1978).

17.4.5 It was proposed in the Pensions Bill 2007 that all additional pension accrual from SERPS and State Second Pension would be consolidated into a single account for each individual. This was not subsequently enacted and no date for doing so has been proposed. Consolidation would result in expenditure being brought forward but would not materially change the total benefits paid. In view of the uncertainty surrounding this possibility and the limited impact on the Fund, no allowance has been made for consolidation in this review.

17.5 Contracted-out deduction

17.5.1 As described above, the method adopted in projecting expenditure on additional pension is first to project the 'gross' entitlement to additional pension, ie assuming that no one is contracted-out, and then to apply a 'contracted-out deduction' (COD) which represents the additional pension employees do not earn as a result of being contracted-out.

17.5.2 The CODs were calculated in a similar manner to the estimates for additional pension described above, based on the earnings factors for the contracted-out population. The assumptions made regarding the future number of employees who are contracted-out were described above. The mortality rates used in projecting the CODs, both before and after reaching *State Pension Age*, were lower than the rates used for all additional pension because experience shows that occupational scheme pensioners generally experience lighter mortality by age than the population as a whole.

17.5.3 Where an employee leaves a contracted-out pension scheme with less than two years' service, the scheme may pay a state scheme premium which in effect cancels the COD. Allowance was made for around 1% of COD amounts relating to occupational pension schemes to be cancelled by the payment of state scheme premiums in the long term.

17.6 Bereavement benefits

- 17.6.1 Estimates of widows' benefits and bereavement benefits are based on an awards and survivorship model. This model is split between projecting the remaining pre-1988 widows who have full transitional protection and are subject to the pre-1988 rules for widows' benefit, projecting the remaining widows widowed between 1988 and 2001, and projecting a build up of widows, widowers and bereaved civil partners post-2001 who are subject to the rules for widows' benefits and bereavement benefits introduced by the Welfare Reform and Pensions Act 1999. Allowance is made for widowers with children who were widowed before April 2001 and who have received widowed parent's allowance since April 2001. Awards are based on recent data and are projected using numbers of new widows, widowers and bereaved civil partners from the latest marital condition projection (mid-2006 based adjusted). Termination and transfer rates by single age and type of benefit are derived from recent data.
- 17.6.2 The estimates of lump sum widows' payments/bereavement payment are derived from information provided by the Department for Work and Pensions. The estimated numbers of widows' and bereavement benefit beneficiaries in future, excluding awards of the lump sum Bereavement Payment, are as shown in Figure E5.

Figure E5 Projected numbers of widows' and bereavement benefit beneficiaries

	2008-09	2010-11	2020-21	2030-31	2040-41	2050-51	2060-61	2070-71
Number of beneficiaries (thousands)								
Widowed Parent's Allowance								
Widows	42	38	24	19	18	17	18	21
Widowers	11	11	7	6	5	5	5	6
Widow's Pension								
Widows	63	41	9	0	0	0	0	0
Bereavement Allowance								
Widows	12	11	18	15	12	13	12	12
Widowers	6	6	5	5	4	4	3	3
Total								
Widows	117	91	51	35	31	30	30	32
Widowers	18	18	13	10	9	9	8	9
Total	134	108	64	45	40	39	38	41

- 17.6.3 The estimates of the amount of additional pension paid with widows' benefits and bereavement benefits are calculated in the additional pension model. Accrued additional pension to people dying under pension age, and actual additional pension in payment to those dying over pension age, are converted to give amounts of widows', widowers' and bereaved civil partners' additional pension, using assumptions on marital and civil partnership status and age of surviving spouse and civil partner taken from Office for National Statistics publications. The amount is split by type of benefit and survived using the main basic bereavement benefit model. Allowance is made for the changes which have applied since April 2001, under which additional pension will only be paid to widows, widowers and civil partners under pension age who receive widowed parent's allowance. Amounts of survived additional pension are transferred back to the main retirement pension model in respect of widows, widowers and bereaved civil partners who reach pension age, including amounts which are not actually paid under pension age. A similar method is used for contracted-out deductions.

17.7 Incapacity Benefit/Employment and Support Allowance

- 17.7.1 Incapacity Benefit (IB) was replaced by Employment and Support Allowance (ESA) for new awards after 27 October 2008.¹ Benefits expected to arise from awards of IB and those expected to arise from recent and future awards of ESA have been separately projected.
- 17.7.2 Current IB recipients are to be migrated to ESA by 2013. However, the intention is that any switch would be cost-neutral to the Fund. Therefore, no explicit allowance has been made for such switches in this review.
- 17.7.3 Projected expenditure on IB and ESA was obtained by projecting the number of recipients and applying this to the relevant projected benefit rate. The projection was made separately for the three types of Incapacity Benefit: short-term lower rate, short-term higher rate and long-term rate; and for the three rates of ESA payable in the assessment phase, Work Related Activity Group and Support Group.
- 17.7.4 The projected numbers of Incapacity Benefit recipients with short-term higher or long-term rate in future were derived by estimating the number of those in force in 2006-07 who would still be in receipt of benefit in later years, by using factors for the probability of continuing to receive benefit.
- 17.7.5 Average amounts of benefit relative to the standard rate are derived from recent data and applied to future years.
- 17.7.6 The projected numbers of Employment and Support Allowance recipients in the Work Related Activity Group and Support Group were derived by estimating the number of awards in each year by applying award rates to the population, subdivided by sex and age.
- 17.7.7 As advised by DWP, it was assumed that 90% of those whose entitlement for ESA is confirmed in the Work Capability Assessment would move into the Work Related Activity Group and 10% into the Support Group.
- 17.7.8 The rules and eligibility conditions for ESA are different from those for Incapacity Benefit (see Section 15.6 above). However, ESA has only been in place since October 2008, and the available data on ESA awards is limited. Therefore, at this stage it is too early to say if the assumptions made in this review regarding the receipt of ESA will be borne out in practice.
- 17.7.9 The following Figure E6 shows the projected award rates at sample ages for Work Related Activity Group and Support Group ESA benefits. These rates are the proportions of the population who are awarded benefits in each quarter, and who are still receiving benefit at the end of that same quarter. The rates shown allow for planned increases to *State Pension Age*.

¹ Throughout this report 'ESA' refers only to contribution-based ESA. Some people will be entitled to income-related ESA, either as the sole form of income or as a top-up, but this is not a National Insurance Fund benefit.

Figure E6 Projected quarterly award rates for assessment phase of Employment and Support Allowance as a percentage of population

Age	Men	Women
	% of population	
20	0.10%	0.08%
25	0.17%	0.10%
30	0.18%	0.10%
35	0.18%	0.11%
40	0.19%	0.14%
45	0.22%	0.17%
50	0.27%	0.22%
55	0.34%	0.27%
60	0.40%	0.28%

17.7.10 Figure E7 shows the assumed proportions of those beneficiaries in force at the start of the year who are still receiving benefit at the end of the year ('the continuation rate') in the long term, split by duration of receipt of benefit, for Incapacity Benefit (long-term rate) and for ESA (Work-Related Activity Group and Support Group rates), excluding those who switch to retirement pension on reaching *State Pension Age*.

Figure E7 Percentage of recipients of Incapacity Benefit and ESA at the start of the year who are assumed to be still in receipt at the end of the year

IB Age	Duration 1-2 years	Men		Women		
		2-5 years	>5 years	1-2 years	2-5 years	>5 years
20	95%	95%	NA	93%	97%	NA
25	85%	79%	100%	86%	78%	98%
30	85%	76%	97%	86%	80%	94%
35	86%	77%	95%	88%	84%	94%
40	86%	80%	95%	89%	85%	96%
45	87%	83%	96%	90%	86%	97%
50	88%	86%	97%	92%	89%	97%
55	90%	89%	97%	93%	91%	98%
60	93%	92%	97%	94%	93%	98%

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

ESA	Men				Women				
	Duration Age	WRAG Dur 1-2	WRAG Dur 2-5	WRAG Dur >5	SG All durations	WRAG Dur 1-2	WRAG Dur 2-5	WRAG Dur >5	SG All durations
20	93%	94%	100%	100%	100%	92%	96%	100%	100%
25	82%	73%	100%	100%	100%	83%	73%	98%	98%
30	83%	71%	97%	97%	97%	85%	77%	94%	94%
35	84%	73%	95%	95%	95%	87%	82%	94%	94%
40	85%	76%	95%	95%	95%	88%	83%	96%	96%
45	85%	79%	96%	96%	96%	89%	84%	97%	97%
50	86%	83%	97%	97%	97%	91%	87%	97%	97%
55	88%	86%	97%	97%	97%	92%	90%	98%	98%
60	91%	91%	97%	97%	97%	93%	92%	98%	98%

17.7.11 Figure E8 shows a further breakdown of the assumed continuation rates for ESA in the first year by quarter.

Figure E8 Percentage of ESA recipients at the start of the quarter who are assumed to be still in receipt at the end of the quarter

Duration	Men				Women			
	0-3 months (including effect of WCA)	WRAG 3-6 months	WRAG 6-9 months	WRAG 9-12 months	0-3 months (including effect of WCA)	WRAG 3-6 months	WRAG 6-9 months	WRAG 9-12 months
Age								
20	75%	81%	89%	91%	73%	80%	86%	88%
25	61%	71%	76%	79%	67%	76%	79%	82%
30	70%	77%	79%	82%	75%	81%	83%	85%
35	73%	80%	82%	85%	77%	83%	85%	87%
40	73%	80%	82%	85%	77%	83%	85%	87%
45	70%	78%	81%	84%	73%	80%	82%	85%
50	65%	74%	81%	84%	72%	79%	82%	85%
55	66%	74%	83%	86%	75%	81%	85%	88%
60	68%	76%	87%	89%	77%	83%	88%	90%

17.7.12 The estimated numbers of Incapacity Benefit/contribution-based ESA beneficiaries in future resulting from the assumptions made are shown in Figure E9.

Figure E9 Projected future numbers of Incapacity Benefit/ESA beneficiaries

	2007- 2008	2010- 2011	2020- 2021	2030- 2031	2040- 2041	2050- 2051	2060- 2061	2070- 2071
Numbers of beneficiaries (thousands)								
IB								
<i>Short-term lower rate</i>								
Males	59	0	0	0	0	0	0	0
Females	31	0	0	0	0	0	0	0
<i>Short-term higher rate</i>								
Males	53	0	0	0	0	0	0	0
Females	39	0	0	0	0	0	0	0
<i>Long-term</i>								
Males	780	629	198	66	20	7	0	0
Females	459	389	178	59	16	5	0	0
<i>Total</i>								
Males	892	629	198	66	20	7	0	0
Females	529	389	178	59	16	5	0	0
Total	1,421	1,018	376	125	36	12	0	0
ESA								
<i>Assessment phase</i>								
Males	0	44	46	48	51	55	56	58
Females	0	26	33	34	36	38	39	40
<i>Work related activity group</i>								
Males	0	132	449	601	676	789	794	822
Females	0	90	427	571	635	731	728	757
<i>Support group</i>								
Males	0	19	98	141	164	189	190	197
Females	0	12	76	107	122	140	140	145
<i>Total</i>								
Males	0	194	592	789	891	1,033	1,040	1,077
Females	0	128	536	712	793	909	907	942
Total	0	323	1,128	1,502	1,683	1,942	1,947	2,019
IB and ESA combined								
Males	892	824	790	855	910	1,040	1,040	1,077
Females	529	517	714	771	809	914	907	942
Total	1,421	1,341	1,503	1,626	1,719	1,954	1,947	2,019

17.8 Jobseeker's Allowance

- 17.8.1 For the purposes of estimating contributory Jobseeker's Allowance it has been assumed that the long term claimant count is around 5% of the numbers economically active. However, only a proportion of the claimant count will be entitled to receive benefit from the National Insurance Fund.¹
- 17.8.2 It is impossible to predict with any confidence precisely what proportion of the unemployed will receive benefit from the National Insurance Fund at any time. This will depend upon a number of factors and particularly on whether the unemployment rate has recently been increasing or decreasing and whether the newly unemployed include large numbers of young persons or others without entitlement. The average duration of unemployment is also a key factor.
- 17.8.3 For the purpose of these estimates it has been assumed that the durational distribution of the unemployed becomes stable. The proportion of the claimant count entitled to contributory Jobseeker's Allowance is assumed to stabilise at just over 20%, based on recent data on duration specific entitlements.

17.9 Guardian's Allowance

- 17.9.1 Expenditure on Guardian's Allowance was determined by projecting forward from details of the existing beneficiaries analysed by age of child, in line with the projected numbers of children by age and recent data on family size, and allowing for the increase in the benefit rate.

17.10 Christmas bonus for pensioners

- 17.10.1 The estimated future expenditure on this benefit was derived from the projected numbers eligible for those benefits (retirement pension, Widow's Pension, Widowed Parent's/Mother's Allowance, Incapacity Benefit and Employment and Support Allowance) which give entitlement to the lump sum. The benefit rate was assumed to remain fixed at £10 since there is no requirement in legislation for this to be raised. No allowance has been made for any further one-off bonuses following the award of £60 in 2008-09.

17.11 Statutory Sick Pay

- 17.11.1 The finances of the National Insurance Fund are not affected by Statutory Sick Pay (SSP), as the Fund recovers from the Consolidated Fund the amount by which small employers reduce their contributions to offset any SSP they must pay. The projections for SSP are therefore included only for completeness. The deductions for SSP amounted to around £43 million in 2008-09. In view of the small amount, the future estimates were derived by simply adjusting this figure in line with the estimates of the numbers of future contributors and the increase in the benefit rate.

¹ This report only covers contributory Jobseeker's Allowance. Income-based Jobseeker's Allowance may be paid from general revenue to an unemployed claimant if contributory Jobseeker's Allowance is not in payment, or to top-up the contributory Jobseeker's Allowance in payment if the income-based Jobseeker's Allowance entitlement is higher, but this is not a National Insurance Fund benefit.

17.12 Statutory Maternity Pay

17.12.1 In line with Statutory Sick Pay, the finances of the National Insurance Fund are not affected by Statutory Maternity Pay (SMP), as the Fund recovers from the consolidated fund the amount by which employers reduce their contributions to offset the SMP paid. The estimates for SMP are thus included only for completeness. Recoveries by employers in respect of expenditure on SMP for 2008-09 are estimated to be about £1.6 billion. For later years it has been assumed that expenditure would vary with the number of births, the estimated proportion of women at the child-bearing ages who are contributing employees, the benefit rate and, in the case of the earnings-related part of the benefit, earnings.

17.13 Statutory Adoption Pay and Statutory Paternity Pay

17.13.1 As with SMP, these benefits are recovered from the consolidated fund. Recoveries in 2008-09 are estimated to be around £39 million. In view of the small amount, we have simply projected forward in line with the number of births and the benefit rate.

17.14 Maternity Allowance

17.14.1 This benefit represents a very small proportion of the total expenditure of the National Insurance Fund. Maternity Allowance beneficiaries are mainly self-employed women and employed women who fail the conditions for SMP, including employed women earning between £30 per week and the Lower Earnings Limit. The projections of Maternity Allowance expenditure were made by adjusting the current numbers and expenditure in proportion to the projected numbers of births in future years and changes in the benefit rate.

17.15 Adult dependency increases

17.15.1 Some benefits are increased if the beneficiary has an adult dependant defined as a wife or other dependant, with earnings, if any, below a specified limit. The amount of the increase is generally about 60% of the insured person's benefit.

17.15.2 No further adult dependency increases will be awarded after April 2010. Existing increases will be paid until April 2020 while eligibility conditions remain satisfied and we have projected the run-off of existing benefits based on the latest data up to that date.

17.16 Child dependency increases

17.16.1 Child dependency increases are payable with retirement pension, Incapacity Benefit and Widowed Parent's/Mother's Allowance awarded before April 2003. No child dependency increases are given for benefits awarded since April 2003. Expenditure on these increases has therefore been modelled by taking the latest data on the number of increases in payment, allowing for new awards up to April 2003 and then running off the resulting amounts over the period until all the children have ceased to be eligible.

17.17 Redundancy payments

17.17.1 The annual amount of redundancy payments net of recoveries was about £389 million in 2008-09, some 0.5% of Fund outgo. Future estimates are based on that amount increased in line with earnings.

17.18 Administration costs

17.18.1 The cost of administration in 2008-09 was about £1,326 million¹, about 1.8% of total expenditure. Of this amount about 75% related to the role of the Department for Work and Pensions in administering the payment of benefits and the majority of the balance related to HM Revenue and Customs' collection of National Insurance contributions.

17.18.2 In future, whilst the numbers of contributors and those in receipt of benefits other than retirement pensions are relatively stable, the increase in the number of pensioners will tend to increase costs. On the other hand, this is likely to be offset by improvements in the efficiency of administration. As administration costs are a relatively small proportion of total outgo, it has been assumed as a practical expedient that they will increase in line with earnings.

17.19 Other income and expenditure

17.19.1 Other income mainly comprises state scheme premiums which are generally payable when an employee leaves a contracted-out occupational pension scheme having completed less than two years in the scheme. This payment reinstates the individual in SERPS/State Second Pension in respect of his or her period of scheme membership. Other items relate to recoveries from insurance companies in respect of claims for damages. In total in 2008-09 other income amounted to about £117 million: and in view of the small amount (relative to other income items) this has been projected forward in line with earnings.

17.19.2 Other expenditure amounted to around £600 million in 2008/09¹ and largely related to payments to the Northern Ireland National Insurance Fund and Isle of Man Insurance Funds and State Pension Deferred Lump Sum payments. For simplicity, other expenditure has been projected forward in line with earnings.

¹ Source: National Insurance Fund Account 2008-09



18 Appendix F Demographic background and population projections

18.1 Introduction

18.1.1 The projected future population of Great Britain used for this review is taken from the principal projection from those published by the Office for National Statistics in 2007. These projections were based on mid-2006 population estimates.

18.1.2 This Appendix sets out the main assumptions used in the principal and variant projections, which can be separated into three key areas: fertility, migration and life expectancy.

Further details can be found on the GAD website at the following links:

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>

<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

18.2 Life expectancy

18.2.1 The projections make allowance for continued improvement in life expectancy each year, based on the trend in mortality rates in the years leading up to 2006.

18.2.2 The following figure illustrates for sample projection years the average number of years a person aged 65 would live if he or she experienced the projected mortality rates for that year throughout the rest of his or her life ('period life expectancies'). It does not make allowance for reductions in mortality rates after that year. The figure therefore shows a 'snapshot' of mortality rates in future projection years and does not give the number of years an individual could actually expect to live.

Figure F1 Period life expectancies at age 65 by calendar year of projection, Great Britain¹

Year	Principal projection		Low life expectancy		High life expectancy	
	Men	Women	Men	Women	Men	Women
2006	17.2	20.0	17.2	20.0	17.2	20.0
2011	18.6	20.8	18.4	20.6	18.8	21.0
2021	20.6	22.7	19.9	22.2	21.3	23.1
2031	21.7	23.9	20.3	22.9	23.2	25.0
2041	22.6	24.8	20.3	23.0	25.0	26.6
2051	23.5	25.6	20.3	23.0	26.8	28.3

¹ These figures are taken from the ONS 2006-based population projections – see the following weblinks:
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

18.3 Fertility

18.3.1 This assumption refers to the average number of children born to each woman and is applied on a 'cohort' basis, ie the rate depends on the year of birth of the women. Cohort based fertility rates tend to be more stable than those for individual calendar years. The fertility rates assumed for Great Britain in the principal and variant population projections are summarised in Figure F2. It can be seen from the figure that the projected fertility rates in the principal projection are considerably less than the rate of about 2.1 which is required for a generation to reproduce itself.

Figure F2 Assumed fertility rate by year of birth of mother for Great Britain¹

Number of children born to each woman			
Year of birth	Principal projection	Low fertility	High fertility
1950	2.07	2.07	2.07
1955	2.02	2.02	2.02
1960	1.97	1.97	1.97
1965	1.90	1.90	1.90
1970	1.89	1.88	1.90
1975	1.86	1.81	1.90
1980	1.89	1.78	1.99
1985	1.86	1.71	2.03
1990	1.84	1.65	2.04
1995 and later	1.84	1.64	2.04

18.4 Migration

18.4.1 The levels of assumed net inward migration for the purpose of the principal and variant population projections are set out in Figure F3 below.

Figure F3 Assumed net migration into Great Britain¹

Assumed net migration (thousands)			
Year	Principal projection	Low migration	High migration
2006-07	185.0	148.5	221.5
2007-08	237.1	164.1	310.1
2008-09	227.0	154.0	300.0
2009-10	219.4	146.4	292.4
2010-11	209.9	136.9	282.9
2011-12	200.4	127.4	273.4
2012-13 to 2013-14	190.9	117.9	263.9
2014-15 onwards	189.5	116.5	262.5

The level of assumed future migration in the principal projection is higher than that assumed in earlier projections. This increase reflects the increased migration that has been experienced over recent years.

¹ These figures are taken from the ONS 2006-based population projections – see the following weblinks:
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

18.4.2 Figure F4 shows how the assumed future net migration in the principal and variant projections is distributed by age. Over the projection period around 51% of the assumed net migrants are women.

Figure F4 Assumed net migration by age into Great Britain¹

Age group	Assumed net migration (thousands)					
	Principal projection		Low migration		High migration	
	2006-07	2014-15 and after	2006-07	2014-15 and after	2006-07	2014-15 and after
0-4	4.3	5.0	2.9	2.1	5.8	7.9
5-9	1.0	1.6	0.0	-0.4	2.1	3.6
10-14	1.9	2.4	0.9	0.4	2.9	4.4
15-19	44.9	42.6	41.8	36.1	48.1	49.1
20-24	85.0	80.8	77.0	64.2	93.1	97.3
25-29	52.3	52.9	45.2	38.4	59.5	67.4
30-34	10.9	12.7	6.4	3.7	15.5	21.8
35-39	5.0	6.4	1.9	0.3	8.2	12.6
40-44	1.2	2.2	-0.8	-1.8	3.3	6.2
45-49	-3.2	-2.1	-4.5	-4.7	-1.9	0.5
50-54	-2.1	-1.3	-3.1	-3.2	-1.1	0.6
55-59	-5.8	-4.8	-6.7	-6.5	-4.9	-3.1
60-64	-7.3	-6.2	-8.0	-7.6	-6.5	-4.8
65-69	-2.5	-2.0	-2.9	-2.8	-2.0	-1.2
70-74	-1.8	-1.6	-2.1	-2.0	-1.6	-1.2
75 and over	0.9	1.0	0.6	0.4	1.3	1.6
Total	185.0	189.5	148.5	116.5	221.5	262.5

¹ These figures are taken from the ONS 2006-based population projections – see the following weblinks:
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>
<http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Variant>

18.5 Population estimates on the principal projection

18.5.1 The following figure shows the estimated future population of Great Britain on the ONS 2006-based principal projection.

Figure F5 Estimated future population of Great Britain at mid-year based on the principal projection published by the Office for National Statistics on 23 October 2007¹

Men		Millions						
Age last birthday	2006	2010	2020	2030	2040	2050	2060	2070
0-4	1.73	1.90	1.99	1.96	2.03	2.12	2.13	2.18
5-9	1.72	1.70	1.98	1.98	1.97	2.09	2.13	2.15
10-14	1.86	1.77	1.91	2.00	1.97	2.04	2.13	2.14
15-19	1.99	1.95	1.76	2.03	2.04	2.03	2.15	2.18
20-24	1.98	2.15	1.99	2.13	2.22	2.19	2.26	2.35
25-29	1.87	2.13	2.29	2.10	2.37	2.38	2.37	2.49
30-34	1.95	1.89	2.38	2.21	2.36	2.45	2.42	2.49
35-39	2.22	2.03	2.20	2.35	2.17	2.45	2.45	2.45
40-44	2.24	2.24	1.91	2.39	2.23	2.38	2.47	2.44
45-49	2.00	2.18	2.01	2.17	2.33	2.15	2.43	2.44
50-54	1.77	1.91	2.18	1.85	2.33	2.17	2.32	2.42
55-59	1.88	1.71	2.08	1.93	2.09	2.25	2.09	2.36
60-64	1.54	1.78	1.77	2.03	1.73	2.20	2.06	2.21
65-69	1.26	1.37	1.53	1.89	1.75	1.92	2.09	1.94
70-74	1.06	1.13	1.53	1.55	1.80	1.55	1.99	1.88
75-79	0.83	0.87	1.10	1.26	1.58	1.49	1.67	1.83
80-84	0.55	0.59	0.79	1.12	1.17	1.40	1.24	1.62
85-89	0.27	0.33	0.46	0.66	0.80	1.05	1.03	1.19
90 and over	0.10	0.13	0.25	0.46	0.76	0.94	1.25	1.31
Total men	28.84	29.76	32.08	34.08	35.72	37.25	38.66	40.07
Women		Millions						
Age last birthday	2006	2010	2020	2030	2040	2050	2060	2070
0-4	1.65	1.82	1.90	1.87	1.94	2.02	2.03	2.09
5-9	1.65	1.63	1.90	1.90	1.89	2.01	2.04	2.06
10-14	1.77	1.68	1.83	1.91	1.88	1.95	2.03	2.04
15-19	1.87	1.82	1.65	1.92	1.93	1.92	2.03	2.06
20-24	1.91	2.04	1.87	2.02	2.10	2.07	2.14	2.23
25-29	1.87	2.08	2.18	2.01	2.28	2.28	2.27	2.39
30-34	1.97	1.90	2.31	2.13	2.28	2.37	2.34	2.41
35-39	2.25	2.07	2.18	2.28	2.11	2.38	2.38	2.37
40-44	2.29	2.27	1.93	2.33	2.15	2.30	2.39	2.36
45-49	2.03	2.25	2.06	2.17	2.27	2.10	2.37	2.38
50-54	1.81	1.95	2.23	1.90	2.30	2.13	2.28	2.37
55-59	1.93	1.76	2.18	1.99	2.11	2.21	2.05	2.32
60-64	1.61	1.87	1.86	2.14	1.82	2.21	2.05	2.21
65-69	1.36	1.47	1.64	2.05	1.88	2.00	2.11	1.96
70-74	1.22	1.28	1.69	1.70	1.97	1.69	2.07	1.93
75-79	1.08	1.08	1.26	1.44	1.82	1.69	1.82	1.93
80-84	0.87	0.86	0.99	1.36	1.40	1.65	1.44	1.80
85-89	0.53	0.59	0.66	0.86	1.02	1.34	1.27	1.41
90 and over	0.31	0.32	0.45	0.70	1.09	1.31	1.71	1.75
Total women	30.01	30.75	32.76	34.68	36.24	37.64	38.85	40.06

¹ These figures are taken from the ONS 2006-based principal projections which can be found at the following weblink: <http://www.gad.gov.uk/Demography%20Data/Population/index.aspx?y=2006&v=Principal>

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

Summary	Millions							
	2006	2010	2020	2030	2040	2050	2060	2070
Children (0-15)	11.16	11.20	12.21	12.41	12.46	13.02	13.32	13.50
Working age (15-SPA) ¹	36.63	37.47	40.28	42.13	43.83	46.27	46.99	48.48
Pension age (SPA+)	11.06	11.85	12.35	14.22	15.66	15.60	17.20	18.15
Total	58.85	60.51	64.84	68.76	71.96	74.89	77.51	80.13
Pensioner support ratio	3.31	3.16	3.26	2.96	2.80	2.97	2.73	2.67

¹ These figures allow for the planned increases in State Pension Age over the period to 2046.



19 Appendix G Detailed results on *principal assumptions* and *main variant demographic assumptions*

19.1 The tables on the following four pages show a more detailed breakdown of the projection results shown in the main body of this report, for the period to 2070-71, on the following assumptions:

Figure G1: *Principal assumptions* – 1.5% pa real earnings growth

Figure G2: *Principal assumptions* – 2% pa real earnings growth

Figure G3: Combined 'young' demographic variant – 2% pa real earnings growth

Figure G4: Combined 'old' demographic variant – 2% pa real earnings growth.

19.2 Similar detailed tables on the other *variant assumptions* (for which the main results are shown in this report) can be found at the following weblink:

<http://www.gad.gov.uk/Documents/Social%20Security/QR2005-DVP-Results.pdf>.

Figure G1 Detailed results in 2009-10 price terms
Principal assumptions – 1.5% pa real earnings growth

All figures in £bn	2008- 2009	2010- 2011	2020- 2021	2030- 2031	2040- 2041	2050- 2051	2060- 2061	2070- 2071
Fund at start of year	47.87	53.76	240.20	481.74	668.95	849.45	868.00	542.75
Class 1 employee contributions:								
Gross	31.46	36.98	47.36	56.66	68.51	82.09	97.09	116.30
Contracted-out rebates deducted	2.36	2.47	1.88	1.47	1.49	1.83	2.22	2.69
Net	29.10	34.51	45.48	55.19	67.02	80.26	94.88	113.62
Class 1 employer contributions:								
Gross	47.69	55.18	73.54	88.14	106.13	127.35	150.62	180.17
Contracted-out rebates deducted	5.29	5.54	3.99	2.95	2.98	3.76	4.57	5.54
Net	42.40	49.64	69.55	85.20	103.15	123.58	146.05	174.63
Total Class 1 contributions	71.50	84.16	115.03	140.38	170.17	203.85	240.93	288.25
Class 1A and 1B contributions	0.94	1.13	1.07	1.29	1.55	1.86	2.20	2.63
Self-employed contributions:								
Class 2	0.27	0.31	0.38	0.46	0.56	0.70	0.82	0.98
Class 4	1.65	1.92	2.75	3.36	4.05	5.05	5.94	7.10
Class 3 voluntary contributions	0.09	0.09	0.08	0.10	0.12	0.14	0.16	0.19
Age-related rebates (APPs and COMPs)	2.63	2.59	0.00	0.00	0.00	0.00	0.00	0.00
Deduction for SSP	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.17
Deduction for SMP, SPP and SAP	1.62	2.14	2.59	2.93	3.61	4.37	5.08	6.10
Contribution income	71.82	85.03	119.32	145.59	176.45	211.59	250.05	299.16
Consolidated Fund transfer	1.67	2.19	2.66	3.01	3.70	4.49	5.22	6.27
Investment income	1.96	1.12	5.00	9.75	13.41	16.98	17.00	10.28
Other income	0.12	0.12	0.11	0.11	0.12	0.14	0.17	0.20
Total income	75.56	88.46	127.09	158.46	193.68	233.21	272.44	315.90
Basic (and graduated) retirement pension	50.18	57.20	71.67	96.87	123.93	143.81	183.88	225.15
Additional earnings-related pension:								
SERPS and S2P – Gross	20.65	25.25	37.46	52.29	67.26	81.23	110.95	137.82
SERPS and S2P – Contracted-out deductions	9.53	11.73	18.39	24.51	26.57	22.36	18.14	14.97
SERPS and S2P – Net	11.12	13.52	19.06	27.78	40.69	58.87	92.81	122.85
Bereavement benefits:								
Flat-rate	0.57	0.50	0.34	0.25	0.22	0.21	0.21	0.19
Additional earnings-related	0.12	0.09	0.03	0.02	0.03	0.03	0.03	0.03
Total bereavement benefits	0.68	0.58	0.37	0.27	0.24	0.24	0.23	0.22
Incapacity benefits/ESA:								
Incapacity Benefit	6.60	5.73	1.98	0.62	0.17	0.05	0.00	0.00
Employment and Support Allowance	0.05	1.47	5.15	6.58	7.05	7.78	7.45	7.38
Total incapacity/ESA benefits	6.66	7.20	7.13	7.20	7.22	7.83	7.45	7.38
Jobseeker's Allowance	0.70	1.14	1.24	1.20	1.18	1.15	1.11	1.09
Maternity Allowance	0.32	0.35	0.37	0.36	0.38	0.39	0.39	0.41
Redundancy benefit (net)	0.39	0.41	0.47	0.55	0.64	0.74	0.86	1.00
Christmas bonus	0.82	0.13	0.11	0.10	0.08	0.06	0.05	0.04
Total benefit expenditure	70.88	80.55	100.42	134.34	174.37	213.10	286.79	358.14
Administration costs	1.33	1.39	1.62	1.88	2.18	2.53	2.93	3.41
Other payments	0.60	0.63	0.73	0.85	0.99	1.15	1.33	1.55
Total outgo	72.80	82.57	102.77	137.07	177.54	216.78	291.06	363.09
Excess/(shortfall) of income over outgo	2.76	5.89	24.32	21.40	16.15	16.43	-18.62	-47.19
Fund at end of year	50.63	59.65	264.52	503.14	685.10	865.88	849.38	495.56
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.3%	19.5%	21.1%	22.4%	22.8%	25.7%	26.7%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

Figure G2 Detailed results in 2009-10 price terms
Principal assumptions – 2% pa real earnings growth

All figures in £bn	2008- 2009	2010- 2011	2020- 2021	2030- 2031	2040- 2041	2050- 2051	2060- 2061	2070- 2071
Fund at start of year	47.87	53.95	264.95	566.94	841.05	1,143.44	1,289.11	1,042.03
Class 1 employee contributions:								
Gross	31.46	37.23	50.03	62.86	79.82	100.47	124.81	157.04
Contracted-out rebates deducted	2.36	2.48	1.93	1.51	1.81	2.33	2.98	3.78
Net	29.10	34.75	48.10	61.35	78.02	98.13	121.83	153.25
Class 1 employer contributions:								
Gross	47.69	55.67	78.05	98.25	124.26	156.60	194.55	244.44
Contracted-out rebates deducted	5.29	5.57	4.10	3.02	3.61	4.81	6.14	7.81
Net	42.40	50.10	73.94	95.23	120.64	151.79	188.42	236.64
Total Class 1 contributions	71.50	84.85	122.04	156.57	198.66	249.93	310.25	389.89
Class 1A and 1B contributions	0.94	1.14	1.13	1.42	1.80	2.27	2.82	3.54
Self-employed contributions:								
Class 2	0.27	0.31	0.40	0.51	0.65	0.85	1.04	1.32
Class 4	1.65	1.92	2.90	3.71	4.70	6.15	7.60	9.54
Class 3 voluntary contributions	0.09	0.09	0.08	0.11	0.13	0.17	0.21	0.26
Age-related rebates (APPs and COMPs)	2.63	2.60	0.00	0.00	0.00	0.00	0.00	0.00
Deduction for SSP	0.04	0.05	0.07	0.09	0.11	0.14	0.18	0.22
Deduction for SMP, SPP and SAP	1.62	2.15	2.73	3.25	4.20	5.34	6.52	8.22
Contribution income	71.82	85.72	126.55	162.33	205.94	259.36	321.91	404.55
Consolidated Fund transfer	1.67	2.20	2.80	3.33	4.31	5.49	6.70	8.45
Investment income	1.96	1.13	5.53	11.52	16.91	22.95	25.44	20.22
Other income	0.12	0.12	0.12	0.12	0.14	0.18	0.22	0.27
Total income	75.56	89.18	135.00	177.29	227.31	287.96	354.27	433.49
Basic (and graduated) retirement pension	50.18	57.20	74.77	106.14	142.68	173.97	233.68	300.53
Additional earnings-related pension:								
SERPS and S2P – Gross	20.65	25.27	37.89	54.66	73.43	93.15	134.72	175.86
SERPS and S2P – Contracted-out deductions	9.53	11.73	18.59	25.43	28.49	24.82	21.18	18.66
SERPS and S2P – Net	11.12	13.53	19.30	29.23	44.93	68.33	113.54	157.20
Bereavement benefits:								
Flat-rate	0.57	0.50	0.34	0.25	0.22	0.21	0.20	0.19
Additional earnings-related	0.12	0.09	0.03	0.02	0.03	0.03	0.04	0.04
Total bereavement benefits	0.68	0.58	0.37	0.27	0.25	0.25	0.24	0.23
Incapacity benefits/ESA:								
Incapacity Benefit	6.60	5.73	1.98	0.62	0.17	0.05	0.00	0.00
Employment and Support Allowance	0.05	1.47	5.15	6.58	7.05	7.78	7.45	7.38
Total incapacity/ESA benefits	6.66	7.20	7.13	7.20	7.22	7.83	7.45	7.38
Jobseeker's Allowance	0.70	1.14	1.24	1.20	1.18	1.15	1.11	1.09
Maternity Allowance	0.32	0.35	0.37	0.36	0.38	0.39	0.39	0.41
Redundancy benefit (net)	0.39	0.41	0.50	0.61	0.74	0.90	1.10	1.34
Christmas bonus	0.82	0.13	0.11	0.10	0.08	0.06	0.05	0.04
Total benefit expenditure	70.88	80.56	103.79	145.11	197.47	252.89	357.56	468.22
Administration costs	1.33	1.39	1.70	2.07	2.53	3.08	3.75	4.57
Other payments	0.60	0.63	0.77	0.94	1.15	1.40	1.70	2.08
Total outgo	72.80	82.58	106.26	148.12	201.14	257.36	363.01	474.87
Excess/(shortfall) of income over outgo	2.76	6.59	28.74	29.17	26.17	30.60	-8.74	-41.38
Fund at end of year	50.63	60.54	293.70	596.11	867.22	1,174.04	1,280.37	1,000.65
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.0%	20.5%	21.8%	22.1%	24.9%	25.8%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

Figure G3 Detailed results in 2009-10 price terms
Combined variant demographic assumptions – 'young' variant – 2% pa real earnings growth

All figures in £bn	2008-2009	2010-2011	2020-2021	2030-2031	2040-2041	2050-2051	2060-2061	2070-2071
Fund at start of year	47.87	54.21	280.65	640.05	1,085.67	1,789.22	2,704.03	3,823.37
Class 1 employee contributions:								
Gross	31.45	37.37	50.83	64.87	84.70	109.53	140.27	182.82
Contracted-out rebates deducted	2.36	2.49	1.96	1.56	1.90	2.53	3.33	4.39
Net	29.10	34.88	48.87	63.31	82.80	107.01	136.94	178.42
Class 1 employer contributions:								
Gross	47.69	55.88	79.31	101.43	131.94	170.94	218.93	284.76
Contracted-out rebates deducted	5.29	5.58	4.17	3.12	3.81	5.21	6.87	9.06
Net	42.40	50.29	75.14	98.31	128.13	165.73	212.06	275.70
Total Class 1 contributions	71.50	85.17	124.01	161.62	210.92	272.74	349.00	454.13
Class 1A and 1B contributions	0.94	1.14	1.13	1.42	1.80	2.27	2.82	3.54
Self-employed contributions:								
Class 2	0.27	0.31	0.41	0.52	0.68	0.91	1.15	1.50
Class 4	1.65	1.93	2.94	3.81	4.91	6.57	8.35	10.82
Class 3 voluntary contributions	0.09	0.09	0.08	0.11	0.14	0.18	0.23	0.29
Age-related rebates (APPs and COMPs)	2.63	2.60	0.00	0.00	0.00	0.00	0.00	0.00
Deduction for SSP	0.04	0.05	0.07	0.09	0.12	0.15	0.20	0.26
Deduction for SMP, SPP and SAP	1.62	2.16	2.80	3.38	4.55	6.03	7.62	9.89
Contribution income	71.82	86.04	128.56	167.48	218.45	282.66	361.55	470.28
Consolidated Fund transfer	1.67	2.21	2.87	3.47	4.67	6.18	7.82	10.15
Investment income	1.96	1.14	5.87	13.06	22.03	36.30	54.50	77.10
Other income	0.12	0.14	0.13	0.13	0.15	0.19	0.24	0.31
Total income	75.56	89.53	137.44	184.15	245.30	325.34	424.10	557.84
Basic (and graduated) retirement pension	50.18	57.07	73.97	103.18	134.30	157.15	205.59	256.82
Additional earnings-related pension:								
SERPS and S2P – Gross	20.65	25.24	37.62	53.46	70.04	86.52	123.53	157.50
SERPS and S2P – Contracted-out deductions	9.53	11.72	18.47	24.90	27.06	22.29	18.00	15.61
SERPS and S2P – Net	11.12	13.52	19.15	28.55	42.98	64.24	105.53	141.89
Bereavement benefits:								
Flat-rate	0.57	0.51	0.37	0.30	0.29	0.32	0.34	0.36
Additional earnings-related	0.12	0.09	0.03	0.03	0.04	0.05	0.06	0.08
Total bereavement benefits	0.68	0.60	0.40	0.32	0.33	0.36	0.40	0.44
Incapacity benefits/ESA:								
Incapacity Benefit	6.60	5.73	1.98	0.62	0.17	0.05	0.00	0.00
Employment and Support Allowance	0.05	1.48	5.19	6.70	7.32	8.22	8.05	8.25
Total incapacity/ESA benefits	6.66	7.20	7.18	7.32	7.49	8.27	8.05	8.25
Jobseeker's Allowance	0.70	1.15	1.26	1.24	1.26	1.26	1.25	1.27
Maternity Allowance	0.32	0.37	0.42	0.42	0.46	0.50	0.51	0.55
Redundancy benefit (net)	0.39	0.41	0.50	0.61	0.74	0.90	1.10	1.34
Christmas bonus	0.82	0.13	0.11	0.09	0.08	0.05	0.04	0.03
Total benefit expenditure	70.88	80.46	102.99	141.74	187.63	232.74	322.48	410.58
Administration costs	1.33	1.39	1.70	2.07	2.53	3.08	3.75	4.57
Other payments	0.60	0.63	0.77	0.94	1.15	1.40	1.70	2.08
Total outgo	72.80	82.48	105.46	144.75	191.30	237.22	327.94	417.23
Excess/(shortfall) of income over outgo	2.76	7.04	31.98	39.39	54.01	88.13	96.16	140.61
Fund at end of year	50.63	61.25	312.63	679.45	1,139.67	1,877.34	2,800.19	3,963.98
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.1%	18.6%	19.5%	19.7%	19.0%	20.4%	20.0%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

Figure G4 Detailed results in 2009-10 price terms
Combined variant demographic assumptions – 'old' variant – 2% pa real earnings growth

All figures in £bn	2008- 2009	2010- 2011	2020- 2021	2030- 2031	2040- 2041	2050- 2051	2060- 2061	2070- 2071
Fund at start of year	47.87	53.73	249.56	492.55	582.17	464.87	0.00	0.00
Class 1 employee contributions:								
Gross	31.46	37.10	49.23	60.56	74.25	90.65	108.15	130.25
Contracted-out rebates deducted	2.36	2.47	1.90	1.46	1.70	2.12	2.58	3.15
Net	29.10	34.62	47.32	59.10	72.55	88.53	105.56	127.10
Class 1 employer contributions:								
Gross	47.69	55.47	76.79	94.57	115.51	141.03	168.43	202.69
Contracted-out rebates deducted	5.29	5.55	4.04	2.93	3.39	4.37	5.33	6.50
Net	42.40	49.91	72.74	91.65	112.12	136.67	163.10	196.19
Total Class 1 contributions	71.50	84.54	120.07	150.74	184.67	225.20	268.67	323.29
Class 1A and 1B contributions	0.94	1.14	1.12	1.37	1.68	2.05	2.45	2.94
Self-employed contributions:								
Class 2	0.27	0.31	0.39	0.50	0.62	0.78	0.92	1.12
Class 4	1.65	1.92	2.86	3.61	4.47	5.66	6.75	8.13
Class 3 voluntary contributions	0.09	0.09	0.08	0.10	0.12	0.15	0.18	0.22
Age-related rebates (APPs and COMPs)	2.63	2.59	0.00	0.00	0.00	0.00	0.00	0.00
Deduction for SSP	0.04	0.05	0.07	0.08	0.10	0.13	0.15	0.19
Deduction for SMP, SPP and SAP	1.62	2.13	2.67	3.09	3.79	4.61	5.44	6.60
Contribution income	71.82	85.40	124.51	156.32	191.55	233.84	278.97	335.70
Consolidated fund transfer	1.67	2.19	2.73	3.17	3.89	4.73	5.59	6.78
Investment income	1.96	1.13	5.19	9.93	11.49	8.92	0.00	0.00
Other income	0.12	0.13	0.13	0.12	0.15	0.18	0.22	0.27
Total income	75.56	88.85	132.57	169.55	207.08	247.67	284.78	342.75
Basic (and graduated) retirement pension	50.18	57.33	75.56	109.00	150.72	190.19	260.62	341.78
Additional earnings-related pension:								
SERPS and S2P – Gross	20.65	25.29	38.16	55.81	76.62	99.31	144.62	191.33
SERPS and S2P – Contracted-out deductions	9.53	11.75	18.71	25.92	29.84	27.27	24.47	22.12
SERPS and S2P – Net	11.12	13.55	19.44	29.89	46.78	72.04	120.15	169.21
Bereavement benefits:								
Flat-rate	0.57	0.48	0.31	0.21	0.16	0.14	0.12	0.10
Additional earnings-related	0.12	0.09	0.03	0.02	0.02	0.02	0.02	0.02
Total bereavement benefits	0.68	0.57	0.34	0.23	0.19	0.17	0.14	0.12
Incapacity benefits/ESA:								
Incapacity Benefit	6.60	5.72	1.98	0.62	0.17	0.05	0.00	0.00
Employment and Support Allowance	0.05	1.47	5.10	6.44	6.76	7.29	6.77	6.40
Total incapacity/ESA benefits	6.66	7.19	7.08	7.07	6.93	7.35	6.77	6.40
Jobseeker's Allowance	0.70	1.14	1.22	1.15	1.09	1.04	0.96	0.91
Maternity Allowance	0.32	0.31	0.32	0.31	0.30	0.30	0.29	0.29
Redundancy benefit (net)	0.39	0.41	0.50	0.61	0.74	0.90	1.10	1.34
Christmas bonus	0.82	0.13	0.11	0.10	0.08	0.07	0.06	0.05
Total benefit expenditure	70.88	80.63	104.58	148.36	206.84	272.05	390.10	520.09
Administration costs	1.33	1.39	1.70	2.07	2.53	3.08	3.75	4.57
Other payments	0.60	0.63	0.77	0.94	1.15	1.40	1.70	2.08
Total outgo	72.80	82.66	107.05	151.37	210.51	276.52	395.55	526.74
Excess/(shortfall) of income over outgo	2.76	6.19	25.52	18.19	-3.43	-28.85	-110.77	-183.99
Fund at end of year	50.63	59.92	275.08	510.74	578.74	436.02	0.00	0.00
Joint Class 1 contribution rate required to balance income and expenditure in year (% of relevant earnings) ¹	21.1%	20.2%	19.4%	21.6%	24.3%	26.0%	30.9%	34.0%

¹ Relevant earnings are earnings between the Lower Earnings Threshold and Upper Earnings Limit for employees, and all earnings above the Lower Earnings Threshold for employers.

20 Appendix H Glossary of abbreviations and terms

Term	Abbreviation	Description
Appropriate Personal Pension	APP	A personal pension plan which is used to contract out of the <i>State Second Pension</i> on a money purchase basis
Category A		Basic retirement pension payable by virtue of a person's own <i>qualifying years</i> and earnings
Category B		Basic retirement pension payable by virtue of a spouse's own <i>qualifying years</i> and earnings
Category BL		Basic retirement pension at a reduced rate payable to a married woman retiring before April 2010 by virtue of her husband's <i>qualifying years</i> and earnings
Class 1 National Insurance contributions		Contributions payable by employers and employees on earnings falling within certain bands
Class 1 primary contributions		Contributions payable by employees
Class 1 secondary contributions		Contributions payable by employers
Class 2 National Insurance contributions		Flat-rate contributions payable by self-employed persons
Class 3 National Insurance contributions		Voluntary contributions paid to enhance their benefit entitlement by those not liable to pay contributions as employed or self-employed persons
Class 4 National Insurance contributions		Earnings-related contributions payable by self-employed persons with profits above the <i>Lower Profits Limit</i>
Contracted-out Deduction	COD	The reduction in additional retirement pension earned between 6 April 1978 and 5 April 1997 by someone who was contracted out of the <i>State Earnings Related Pension Scheme</i> during that period
Contracted-out money purchase pension scheme	COMP	A money purchase occupational pension scheme in which part of the fund (known as Protected Rights) takes the place of additional retirement pension
Contracted-out salary-related pension scheme	COSR	An occupational pension scheme providing a pension related to earnings which satisfies an overall test of scheme quality. Before 6 April 1997, the pension provided could not be less than the <i>Guaranteed Minimum Pension</i>
Employment and Support Allowance	ESA	A Fund benefit replacing <i>Incapacity Benefit</i> for new claims from 27 October 2008
Gross Domestic Product	GDP	A measure of the economic activity taking place in UK economic territory, equivalent to the value added to the economy by this activity
Guaranteed Minimum Pension	GMP	A minimum level of pension which had to be provided by <i>contracted-out salary-related pension schemes before 6 April 1997</i>

Government Actuary's Quinquennial Review of the National Insurance Fund as at April 2005

Term	Abbreviation	Description
Incapacity Benefit	IB	A Fund benefit on incapacity. Replaced by <i>Employment and Support Allowance</i> for new claims from 27 October 2008
Low Earnings Threshold	LET	Band 1 <i>State Second Pension</i> accrues on earnings between the <i>Lower Earnings Limit</i> and this level
Lower Earnings Limit	LEL	Contracted-out rebates are applied to earnings between this level and the <i>Upper Earnings Limit</i>
Lower Profits Limit	LPL	<i>Class 4 contributions</i> are paid on profits above this level
Maternity Allowance Threshold	MET	The minimum level of earnings required to receive Maternity Allowance (£30 a week from April 2009)
Primary Threshold		<i>Class 1 primary contributions</i> are paid on earnings above this level
Qualifying years		Years of contributions or credits counting towards basic retirement pension entitlement
Secondary Threshold		<i>Class 1 secondary contributions</i> are paid on earnings above this level
Small Earnings Exception		<i>Class 2 contributions</i> are not payable by those earning below this level
State Earnings-Related Pension Scheme	SERPS	The earnings-related additional retirement pension scheme for those with earnings over the <i>Lower Earnings Limit</i> between April 1978 and April 2002
State Pension Age	SPA	The age from which the basic and additional retirement pensions are payable
State Second Pension	S2P	The additional retirement pension scheme replacing <i>SERPS</i> for those with earnings over the <i>Lower Earnings Limit</i> from April 2002
Statutory Adoption Pay	SAP	A Fund benefit on adoption, payable for up to 39 weeks
Statutory Maternity Pay	SMP	A Fund benefit on the birth of a child, payable for up to 39 weeks
Statutory Paternity Pay	SPP	A Fund benefit on the birth of a child, payable for up to 2 weeks
Statutory Sick Pay	SSP	A Fund benefit payable for up to 28 weeks to employees who are unable to work owing to illness
Upper Accrual Point	UAP	Band 3 <i>State Second Pension</i> accrues on earnings between the <i>Upper Earnings Threshold</i> and this level. Fixed at £40,040 pa
Upper Earnings Limit	UEL	Contracted-out rebates are applied to earnings between the <i>Lower Earnings Limit</i> and this level
Upper Earnings Threshold	UET	Band 2 <i>State Second Pension</i> accrues on earnings between the <i>Low Earnings Threshold</i> and this level.
Upper Profits Level	UPL	<i>Class 4 contributions</i> are payable at a lower rate by self-employed persons on profits above this level. Aligned to income tax higher rate threshold from 2009-10
Upper Profits Limit	UPL	<i>Class 4 contributions</i> are payable by self-employed persons with profits above this level

21 Appendix I List of Figures included in this review

The list of Figures included in this review is given below, grouped by Section and Appendix.

Section 1 – Executive summary		Page No
Figure 1.1	Summary of population of Great Britain from ONS 2006-based principal population projections	7
Figure 1.2	Total projected expenditure from the Fund as % of GDP – <i>Principal assumptions</i>	8
Figure 1.3	Projected balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year – <i>Principal assumptions</i>	8
Figure 1.4	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Principal assumptions</i>	9
Section 2 – Introduction and scope of the review		
No Figures		
Section 3 – How the National Insurance Fund works		
No Figures		
Section 4 – Principal results		
Figure 4.1	Total projected expenditure from the Fund as % of GDP – <i>Principal assumptions</i>	15
Figure 4.2	Projected balance or shortfall in the Fund (assuming no change in contribution rates) as a multiple of expenditure in the year – <i>Principal assumptions</i>	15
Figure 4.3	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Principal assumptions</i>	16
Figure 4.4	Main results – <i>Principal assumptions</i> – 1.5% pa real earnings growth	17
Figure 4.5	Main results – <i>Principal assumptions</i> – 2% pa real earnings growth	17
Section 5 – Sensitivity of results to assumptions		
Figure 5.1	Composition of ONS 'young' and 'old' combined variants	19
Figure 5.2	Pensioner support ratio under ONS 2006-based principal and variant population projections	19
Figure 5.3	Key <i>principal</i> and <i>variant economic assumptions</i>	20

Section 6 – Projections on <i>variant demographic assumptions</i>		Page No
Figure 6.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year –Combined <i>variant demographic assumptions</i> – 2% pa real earnings growth	22
Figure 6.2	Main results –Combined <i>variant demographic assumptions</i> – ‘young’ variant – 2% pa real earnings growth	23
Figure 6.3	Main results –Combined <i>variant demographic assumptions</i> – ‘old’ variant – 2% pa real earnings growth	23
Figure 6.4	Projected joint Class 1 contribution rate required to balance income and expenditure in the year <i>Individual variant demographic assumptions</i> – low and high fertility – 2% pa real earnings growth	24
Figure 6.5	Main results <i>Individual variant demographic assumptions</i> – low fertility – 2% pa real earnings growth	25
Figure 6.6	Main results <i>Individual variant demographic assumptions</i> – high fertility – 2% pa real earnings growth	25
Figure 6.7	Projected joint Class 1 contribution rate required to balance income and expenditure in the year <i>Individual variant demographic assumptions</i> – low and high migration – 2% pa real earnings growth	26
Figure 6.8	Main results <i>Individual variant demographic assumptions</i> – low migration – 2% pa real earnings growth	27
Figure 6.9	Main results <i>Individual variant demographic assumptions</i> – high migration – 2% pa real earnings growth	27
Figure 6.10	Projected joint Class 1 contribution rate required to balance income and expenditure in the year <i>Individual variant demographic assumptions</i> – low and high life expectancy – 2% pa real earnings growth	28
Figure 6.11	Main results <i>Individual variant demographic assumptions</i> – low life expectancy – 2% pa real earnings growth	29
Figure 6.12	Main results <i>Individual variant demographic assumptions</i> – high life expectancy – 2% pa real earnings growth	29

Section 7 – Projections on <i>variant economic assumptions</i>		Page No
Figure 7.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant economic assumptions</i> – 1.5% pa real earnings growth	30
Figure 7.2	Main results – <i>Variant economic assumptions</i> – price up-rating – 1.5% pa real earnings growth	31
Figure 7.3	Main results – <i>Variant economic assumptions</i> – earnings up-rating – 1.5% pa real earnings growth	31
Figure 7.4	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant economic assumptions</i> – 2% pa real earnings growth	32
Figure 7.5	Main results – <i>Variant economic assumptions</i> – price up-rating – 2% pa real earnings growth	33
Figure 7.6	Main results – <i>Variant economic assumptions</i> – earnings up-rating – 2% pa real earnings growth	33
Figure 7.7	Projected joint Class 1 contribution rate required to balance income and expenditure in the year <i>Variant earnings growth assumptions</i> – 1% and 2.5% pa real earnings growth	34
Section 8 – Projections on <i>variant labour market assumptions</i>		
Figure 8.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant labour market assumptions</i> – 2% pa real earnings growth	36
Figure 8.2	Main results – <i>Variant labour market assumptions</i> – unemployment 50% lower – 2% pa real earnings growth	37
Figure 8.3	Main results – <i>Variant labour market assumptions</i> – unemployment 50% higher – 2% pa real earnings growth	37
Section 9 – Projections on <i>variant contracting-out assumptions</i>		
Figure 9.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant contracting-out assumptions</i> – 2% pa real earnings growth	38
Figure 9.2	Main results – <i>Variant contracting-out assumptions</i> – all contracting-out ceases in 2022 – 2% pa real earnings growth	39

Section 10 – Projections on <i>variant assumptions for expenditure on Incapacity Benefit and Employment and Support Allowance</i>		Page No
Figure 10.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant assumptions for expenditure on IB/ESA – 2% pa real earnings growth</i>	40
Figure 10.2	Main results – <i>Variant assumptions for expenditure on IB/ESA – 50% reduction in expenditure occurring gradually over first 15 years – 2% pa real earnings growth</i>	41
Figure 10.3	Main results – <i>Variant assumptions for expenditure on IB/ESA – 50% increase in expenditure occurring gradually over first 15 years – 2% pa real earnings growth</i>	41
Section 11 – Projections showing impact of changes to income or outgo		
Figure 11.1	Projected joint Class 1 contribution rate required to balance income and expenditure in the year – <i>Variant income/outgo – 2% pa real earnings growth</i>	42
Figure 11.2	Headline results – <i>Variant income/outgo – 5% fall in contribution income – 2% pa real earnings growth</i>	43
Figure 11.3	Headline results – <i>Variant income/outgo – 5% rise in benefit expenditure – 2% pa real earnings growth</i>	43
Section 12 – Comparison with previous Quinquennial Review		
Figure 12.1	Headline projection results from this review and the previous review as at 5 April 2000	44
Figure 12.2	Analysis of changes in the projected joint Class 1 contribution rate since the previous Quinquennial Review as a result of: <ul style="list-style-type: none"> > changes in benefits > changes in projection assumptions > actual economic and demographic experience <i>Principal assumptions – 2% pa real earnings growth</i>	45
Appendix A – Data used		
No Figures		
Appendix B – Summary of benefits and contributions		
Figure B1	Earnings bands on which Class 1 National Insurance contributions are based in the period 2000-01 to 2009-10	51
Figure B2	Basic retirement pension and earnings limits from 2000-01 to 2010-11	51

		Page No
Figure B3	Main Class 1 percentage contribution rates for employees (primary) and employers (secondary) from 2000-01 to 2011-12, showing those contributions allocated to the National Insurance Fund (NIF) and to the NHS, for those not contracted-out	52
Figure B4	Contracted-out rebates (%) from 2000-01 to 2009-10 as a percentage of earnings from the Lower Earnings Limit up to the Upper Earnings Limit (for years to 2008-09), or up to the Upper Accrual Point (in 2009-10)	53
Figure B5	Contribution rates, including the NHS allocation, and profits limits for self-employed persons from 2000-01 to 2010-11	53
Figure B6	Class 3 contributions	54
Figure B7	Entitlement to National Insurance Fund benefits for different National Insurance contribution classes	55
Figure B8	<i>State Pension Age</i> changes	56
Appendix C – Specific benefit details		
Figure C1	Percentage of the full basic retirement pension according to the number of <i>qualifying years</i> (sample years only) completed for an individual with a working life of 49 years	58
Figure C2	Accrual rates for SERPS pensions	60
Appendix D – Summary of methods and assumptions adopted		
Figure D1	Summary of <i>principal assumptions</i> and <i>variant assumptions</i> used for the review compared to <i>principal assumptions</i> adopted at the previous review	69
Figure D2	Projected population of Great Britain under <i>principal demographic assumptions</i>	70
Figure D3	Projected pensioner support ratio under <i>principal</i> and <i>variant demographic assumptions</i>	70
Figure D4	Main economic assumptions used for the review	71
Figure D5	Up-rating of benefits and limits	72
Figure D6	Percentages of workforce assumed to be economically active	73
Figure D7	Projected numbers of jobs for which contributions are payable, assuming earnings limits are increased in line with current announced practice and real earnings grow at 2% per annum	74
Figure D8	Assumed proportions of workforce in contracted-out salary-related pension schemes	75

		Page No
Figure D9	Assumed average weekly earnings for all employees and for members of contracted-out salary-related (COSR) occupational pension schemes in 2009-10	77
Appendix E Methods and assumptions for specific items of expenditure		
Figure E1	Assumed average percentage of all women at <i>State Pension Age</i> who are entitled to retirement pension and their mean rate of pension as a percentage of the standard rate	80
Figure E2	Assumed average percentage of married women at <i>State Pension Age</i> who are entitled to retirement pension and their total mean rate of pension as a percentage of the standard rate, separately for all married women and for married women with at least some own entitlement	81
Figure E3	Projected future numbers of basic retirement pensioners	81
Figure E4	New awards of gross additional pensions, per person in the population reaching <i>State Pension Age</i> in selected financial years, assuming real earnings growth of 2% per annum, excluding inherited amounts	83
Figure E5	Projected future numbers of widows' and bereavement benefit beneficiaries	84
Figure E6	Projected quarterly award rates for assessment phase of Employment and Support Allowance as a percentage of population	86
Figure E7	Percentage of recipients of Incapacity Benefit and ESA at the start of the year who are assumed to be still in receipt at the end of the year	86
Figure E8	Percentage of ESA recipients at the start of the quarter who are assumed to be still in receipt at the end of the quarter	87
Figure E9	Projected future numbers of Incapacity Benefit/ESA beneficiaries	88
Appendix F – Demographic background and population projections		
Figure F1	Period life expectancies at age 65 by calendar year of projection, Great Britain	93
Figure F2	Assumed fertility rate by year of birth of mother for Great Britain	94
Figure F3	Assumed net migration into Great Britain	94
Figure F4	Assumed net migration by age into Great Britain	95
Figure F5	Estimated future population of Great Britain at mid-year based on the principal projection published by the Office for National Statistics on 23 October 2007	96

Appendix G – Detailed results on <i>principal assumptions</i> and <i>main variant demographic assumptions</i>		Page No
Figure G1	Detailed results – <i>Principal assumptions</i> – 1.5% pa real earnings growth	100
Figure G2	Detailed results – <i>Principal assumptions</i> – 2% pa real earnings growth	101
Figure G3	Detailed results – <i>Combined variant demographic assumptions</i> – ‘young’ variant – 2% pa real earnings growth	102
Figure G4	Detailed results – <i>Combined variant demographic assumptions</i> – ‘old’ variant – 2% pa real earnings growth	103

Appendix H – Glossary of abbreviations and terms

No Figures



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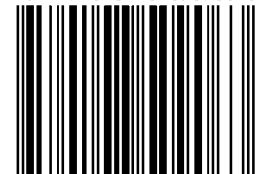
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