The implications of Government policy for future levels of pensioner poverty
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A Research Report by Dr Leandro Carrera, Daniel Redwood and John Adams

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# The implications of Government policy for future levels of pensioner poverty

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**Introduction**

Pensioner poverty has been falling over the last three decades in the UK. At its peak in 1989, 39% of pensioners had incomes below the relative poverty line of 60% of median income, after housing costs (AHC). By 2005 this had fallen to around 18% of pensioners living in relative income poverty. However, in more recent years, pensioner poverty levels have remained steady and the Government’s most recent figures suggest that in 2009/10 around 1.8 million pensioners were living in households with household income below the relative poverty line of 60% of median income, after housing costs (AHC). This represented 16% of a total of 11.5 million pensioners living in the UK.

The structure of the tax and benefit system may have a significant impact on poverty levels among pensioners. The Labour Government’s approach to reducing pensioner poverty was to increase the provision of means-tested benefits, most notably, through the introduction of Pension Credit. The approach also included attempts to increase the take-up and the levels of means-tested benefits paid.

For future pensioners, the approach to tackling pensioner poverty levels was driven by the recommendations of the Pensions Commission that have been translated into state pension reforms legislated in the Pensions Act 2007. The reforms already implemented have included, among other measures, a reduction in the required number of National Insurance Contributions’ (NIC) years to qualify for a full Basic State Pension (BSP) and the introduction of National Insurance (NI) credits to qualify for the BSP and the State Second Pension (S2P).

In 2007, the Institute for Fiscal Studies (IFS) analysed the impact that the state pension reforms set out in the Government’s 2006 White Paper might have had on pensioner poverty. However, since this study was published, many policy changes have taken place and further changes may be introduced in the near future.

The current Coalition Government has introduced measures that will increase the level of the Basic State Pension in the future by indexing it to the higher of earnings, growth in the Consumer Prices Index (CPI) or 2.5%, whichever is higher – the triple-lock. It has also introduced reforms to means-tested benefits. The Government is also consulting on significant further reforms to the state pension system.

Many of these policies could have an impact on pensioner poverty levels. Consequently, there is a need for an updated analysis of how pensioner poverty levels could be affected under current policy and under alternative policy scenarios.
Relative income poverty measures are a useful tool for exploring what percentage of pensioners are likely to be living under a specific income poverty threshold under alternative Government policies. These measures also play a vital role in informing policy aimed at poverty reduction. Alternative measures of poverty such as consumption-based and deprivation indices can also play a useful role, although it is more difficult to project the impact of policy changes on these measures into the future.

This report provides new evidence on how relative income poverty levels among pensioners could be affected under current policy. It also shows how pensioner income poverty levels may be affected under alternative policy scenarios, some of which are related to the latest proposals suggested by the Government. This report also assesses the trade-offs between the costs of implementing the different alternatives and their actual effect on reducing pensioner poverty levels.

Chapter one discusses what poverty is and how it can be measured. This chapter argues that relative income poverty measures can be an effective tool to measure and predict poverty levels.

Chapter two discusses recent trends in pensioner income poverty, it describes how state pension reforms may affect pensioner income poverty and it lays out the approach of this report.

Chapter three describes the methodological approach employed to measure relative income poverty. This chapter then analyses the impact of the current policy scenario on relative poverty as well as on pensioners’ income distribution and the percentage of pensioners entitled to means-tested benefits.

Chapter four analyses the impact of alternative policy scenarios that change the benefits within the current system on future pensioner income poverty levels. It also assesses the impact of such policy scenarios on pensioners’ income distribution and on the number of pensioners eligible for means-tested benefits.

Chapter five analyses the impact of alternative policy scenarios that introduce a single-tier pension under different variants on future pensioner income poverty levels. It also assesses the impact of such policy scenarios on pensioners’ income distribution and on the number of pensioners eligible for means-tested benefits.

Chapter six assesses the trade-offs in terms of the costs and the potential reduction in poverty levels of the different policy scenarios. This chapter also discusses the trade-offs involved around the elimination of means-tested benefits.
Executive Summary

Pensioner poverty has been falling over the last three decades in the UK. At its peak in 1989, 39% of pensioners had incomes below the relative poverty line of 60% of median income, after housing costs (AHC). By 2005 this had fallen to around 18% of pensioners living in relative income poverty. This reduction in the level of pensioner poverty can be attributed partly to falls in the relative after housing cost income of working-age people and partly as a direct result of Government policy through the introduction of means-tested benefits, most notably, Minimum Income Guarantee (MIG) in 1999, and its successor, Pension Credit since 2003.

However, in more recent years, pensioner poverty levels have remained steady and the Government’s most recent figures suggest that in 2009/10 around 1.8 million pensioners were living in households with household income below the relative poverty line of 60% of median income, after housing costs (AHC). This represented 16% of a total of 11.5 million pensioners living in the UK.

Further state pension reforms may have an impact on the income of current and future pensioners and hence on future levels of pensioner poverty. However, some measures will have a short-term impact on the household incomes of current pensioners, while others will have a long-term impact on the incomes of future pensioners.

This report examines the potential impact of a range of alternative policy options that Government could adopt on future levels of pensioner poverty. The report does not aim to suggest which policy the Government should adopt, but rather aims to highlight the implications of policy choices for possible future levels of pensioner poverty.

All of the results must be interpreted with care. The results on the percentage of pensioners living in households with household income below 60% of median income are particularly sensitive to changes in the long-term median income growth assumption for the UK population as a whole. In the main report we have conducted sensitivity analysis of the results to this and other assumptions.

The Government’s current pensions policy is to index the Basic State Pension (BSP) to the higher of growth in earnings, in the Consumer Prices Index (CPI) or 2.5% - the triple-lock, and to make the State Second Pension (S2P) flat-rate by the mid 2030s. In the current policy scenario, the report assumes that the Government continues to index Guarantee Credit to earnings, as has been recent practice and as set out in the Pensions Act 2007, although the Government has not made any specific commitment on the future of means-tested benefit indexation.
Table A1 sets out the projections of the percentage of pensioners living in households with household income below 60% of median income, after housing costs, under a continuation of current policy. It also sets out projected Government expenditure on state pensions and other benefits paid to pensioners.

Table A1: Implications of current pension policy for future levels of pensioner poverty and Government expenditure on state pensions and other benefits

<table>
<thead>
<tr>
<th>Current policy – BSP triple-locked, S2P flat-rate mid-2030s, Guarantee Credit indexed to earnings. Assumes current levels of take-up of means-tested benefits</th>
<th>2011</th>
<th>2017</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</td>
<td>15%</td>
<td>14%</td>
<td>11%</td>
</tr>
<tr>
<td>Government spending on state pensions and other benefits (% of GDP)</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

Under a continuation of current Government policy this report has found that:

- The projected percentage of pensioners living in households with household income below 60% of median incomes AHC, is projected to continue to decrease over the long-term. The report suggests that under a continuation of current policy assuming current levels of take up for means-tested benefits, around 11% of pensioners are projected to be living in relative income poverty by 2025, compared to the Government’s latest official estimates of 16% of pensioners in 2009/10. Under this option the Government is projected to spend around 5.7% of GDP in state pensions and other benefits by 2025. The projected reduction in pensioner poverty is partly due to the Government’s policy of indexing the BSP to the triple-lock.

- Under a continuation of current policy but assuming full take-up of means-tested benefits, this report has found that by 2025 around 6% of pensioners are projected to be living in relative income poverty by 2025. However, this option would increase Government spending on state pensions and other benefits to around 5.9% of GDP by 2025. It should also be recognised that it is very difficult to achieve 100% take-up.

- The ratio between the income of pensioners in the top and the bottom of the income distribution tends to decrease over the long-term. This declining ratio suggests a decreasing income inequality among pensioners.
The percentage of pensioners eligible for means-tested benefits tends to decrease over the long-term.

The report has analysed the impact on pensioner poverty of implementing policy options that would entail some changes to the benefits that are paid to pensioners within the current system. The three policy options considered include:

- As current policy but with the Guarantee Credit indexed to the higher of growth in earnings, CPI or 2.5% - the triple-lock from 2012;
- As current policy but with the Guarantee Credit indexed to the Consumer Prices Index (CPI) from 2012;
- As current policy but with Winter Fuel Payments re-instated to their 2010 levels and then indexed in line with the higher of growth in earnings, CPI or 2.5% - the triple-lock from 2011.

Table A2: The implications of changes to the level of benefits paid to pensioners for future levels of pensioner poverty and Government expenditure

<table>
<thead>
<tr>
<th>Policy Option</th>
<th>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</th>
<th>Government Spending on state pensions and other benefits (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current policy – BSP triple-locked, S2P flat-rate mid-2030s, Guarantee Credit indexed to earnings.</td>
<td>15% 14% 11%</td>
<td>5.7%</td>
</tr>
<tr>
<td>As current policy but Guarantee Credit increased to £140 a week in 2010/11 earnings terms, indexed to “triple-lock” from 2012</td>
<td>15% 14% 9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>As current policy but current level of Guarantee Credit indexed to CPI from 2012</td>
<td>15% 18% 19%</td>
<td>5.4%</td>
</tr>
<tr>
<td>As current policy but Winter Fuel Payments re-instated to 2010 level and indexed to “triple-lock” from 2011</td>
<td>15% 14% 10%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>

The report concludes that under the policy options that change some benefits within the current system:

- Two of the policy options could further reduce future levels of pensioner poverty compared to current policy, but indexing the
Guarantee Credit in line with the CPI could increase future levels of pensioner poverty to around 19% of pensioners by 2025, compared to 11% under current policy. This option would decrease Government spending on state pensions and other benefits to 5.4% of GDP by 2025, compared to 5.7% under current policy.

- Increasing the Guarantee Credit to £140 per week from 2012 and indexing it by the ‘triple-lock’ reduces the projected percentage of pensioners living in households with household income below 60% of median income to 9% by 2025, compared to 11% of pensioners under current policy. Under this option the Government is projected to spend around 5.8% of GDP on state pensions and other benefits, compared to 5.7% under current policy.

- Setting the Winter Fuel Payments (WFP) to 2010 levels from 2011 and indexing them by the ‘triple-lock’ is also likely to decrease the projected percentage of pensioners living in households with household income below 60% of median income to around 10% of pensioners by 2025, compared to around 11% under current policy. Under this option the Government is projected to spend around 5.8% of GDP on state pensions and other benefits by 2025, compared to 5.7% of GDP under current policy.

- These findings highlight the key role played by the level of the Guarantee Credit in determining future levels of pensioner poverty.

The Coalition Government has issued a Green Paper to consult on possible further state pension reforms. The Green Paper proposes two options for further state pension reform. The first option proposes to accelerate the flat-rating of the State Second Pension (S2P) by 2020 so that accrual becomes flat-rate by 2020 instead of by around 2030. The second option would entail the replacement of the current BSP and the S2P with a flat-rate single-tier pension, estimated at £140 per week in 2010 earnings introduced for future pensioners who reach State Pension Age (SPA) from the date the new system is implemented.

This report has analysed the impact on pensioner poverty of implementing a single-tier pension under three different variants:

- A single-tier pension as proposed in the Government’s recent Green Paper, set at £140 a week in 2010, and introduced from 2016 for future pensioners retiring after that date only;

- A single-tier state pension at the level proposed by the Government, but introduced more widely, for all future and current pensioners from 2016;

- A single-tier pension as proposed in the Government’s recent Green Paper, set at £140 a week in 2010 and introduced from 2016 for future pensioners only, along with an increase in the Guarantee Credit to £140 from 2012 and indexing it by the triple-lock.
Table A3: The implications of alternative single-tier state pension policies for future levels of pensioner poverty and Government expenditure

<table>
<thead>
<tr>
<th></th>
<th>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</th>
<th>Government Spending on state pensions and other benefits (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2017</td>
</tr>
<tr>
<td>Current policy – BSP triple-locked, S2P flat-rate mid-2030s, Guarantee Credit indexed to earnings.</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Single-tier pension as in Green Paper introduced for future pensioners from 2016</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Single-tier pension introduced for all pensioners (current and future) from 2016</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Single-tier pension for future pensioners only and Guarantee Credit indexed to the “triple-lock” from 2012</td>
<td>15%</td>
<td>13%</td>
</tr>
</tbody>
</table>

The report concludes that:

• Under all three of the single-tier options modelled the percentage of pensioners living in households in income poverty tend to further decrease over the long-term, compared to a continuation of current policy.

• Introducing a single-tier pension as proposed in the Government’s recent Green Paper for future pensioners only, reduces the percentage of pensioners projected to live in households with household income below 60% of median income to around 10% by 2025, compared to 11% of pensioners under a continuation of current policy. This option costs broadly the same as current policy.

• Introducing a single-tier pension for all pensioners from 2016 has the most significant impact on reducing the percentage of pensioners living in households with household income below 60% of median income. Under this option pensioner poverty is projected to reduce to 7% of pensioners by 2025, compared to 11% under current policy. This option also leads to a sharp fall in relative poverty levels immediately after its introduction in 2016, which reflects the immediate effect that it would have in reducing pensioner poverty. However, this option is the most expensive of the single-tier options for Government to implement, increasing Government spending on state pensions and
other benefits to around 5.9% of GDP by 2025, compared to 5.7% under current policy.

- Introducing a single-tier pension as proposed in the Government’s recent Green Paper for future pensioners only from 2016, along with a commitment from the Government to increase the Guarantee Credit in line with the triple-lock could reduce future levels of pensioner poverty to 8% of pensioners by 2025, compared to 11% under current policy. The Government is projected to spend around 5.8% of GDP on state pensions and other benefits by 2025 under this option, compared to 5.7% under current policy.

- The percentage of pensioner households entitled to means-tested benefits under any of the single-tier options is projected to be lower than under current policy over the long-term.

The report highlights the trade-offs faced by all Governments in terms of the potential effect on poverty reduction of alternative policies and the costs of the different policy options. The policy options examined in this report that appear to be most effective at reducing future levels of pensioner poverty - such as the introduction of a flat-rate single-tier pension for all pensioners - are also the most expensive for the Government to implement. All Governments will have to decide where the balance lies between aiming to reduce pensioner poverty and controlling Government expenditure.
## Summary of poverty projections and Government expenditure under alternative policy scenarios

<table>
<thead>
<tr>
<th>Policy Scenario</th>
<th>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</th>
<th>Government Spending on State Pensions and Benefits (% GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy – BSP triple-locked, S2P flat-rate mid 2030s, Guarantee Credit indexed to earnings</td>
<td>15% 14% 11%</td>
<td>5.7%</td>
</tr>
<tr>
<td>1. As current policy but Guarantee Credit indexed to triple-lock, instead of earnings from 2012</td>
<td>15% 14% 9%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2. As current policy but Guarantee Credit indexed to CPI, instead of earnings from 2012</td>
<td>15% 18% 19%</td>
<td>5.4%</td>
</tr>
<tr>
<td>3. As current policy but Winter Fuel Payments re-instated to 2010 level and indexed to triple-lock.</td>
<td>15% 14% 10%</td>
<td>5.8%</td>
</tr>
<tr>
<td>4. Single-tier pension as in Green Paper introduced for future pensioners only from 2016</td>
<td>15% 14% 10%</td>
<td>5.7%</td>
</tr>
<tr>
<td>5. Single-tier pension introduced for all pensioners (current and future) from 2016</td>
<td>15% 9% 7%</td>
<td>5.9%</td>
</tr>
<tr>
<td>6. Single-tier pension for future pensioners only and Guarantee Credit indexed to “triple-lock” instead of earnings from 2012</td>
<td>15% 13% 8%</td>
<td>5.8%</td>
</tr>
</tbody>
</table>
Chapter one: how can pensioner poverty be measured?

This chapter defines poverty, reviews the different approaches to measuring it and explores why pensioner poverty is important. This chapter also argues that relative income poverty measures can be an effective tool to measure and predict poverty.

What is poverty?

Poverty is commonly understood as material and social deprivation as a consequence of a lack of resources.\(^1\) While this definition is widely accepted among academics and practitioners, there is much less agreement on how to measure poverty, with studies showing that people below a given poverty line do not always have low living standards.\(^2\)

Measuring poverty

The main divide among poverty measures is between indirect measures based on income and direct ones based on consumption. Table 1 shows the different types of income and consumption-based measures.

Table 1: Income-based and consumption-based poverty measures

<table>
<thead>
<tr>
<th>Income-based</th>
<th>Consumption-Based</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute measures</td>
<td>Relative spending lines</td>
</tr>
<tr>
<td>Relative measures</td>
<td>Fuel Poverty</td>
</tr>
<tr>
<td>Minimum budget standards</td>
<td>Deprivation measures</td>
</tr>
<tr>
<td>Measures of income and financial resources</td>
<td></td>
</tr>
</tbody>
</table>

Income-based measures: absolute and relative poverty measures

Absolute and relative poverty measures are the most common income-based measures. They are based on establishing the share of the population that has income that is below a certain income threshold that is the same across all countries and does not change over time (absolute poverty) or that is related to the average income of a society (relative poverty).

In the UK, the absolute poverty line is set at 60% of the median income in 1998/99 held constant in real terms. In developing countries, the World Bank approach of considering the proportion of people living under a certain threshold such as $1 or $2 a day is an absolute measure of poverty that is used.\(^3\)

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1 Townsend (1979)
2 Saunders and Hill (2008)
3 See World Bank methodology at: data.worldbank.org/indicator/SI.POV.DDAY
The relative poverty line in the UK and other OECD countries is set at 60% of the median income of the population as a whole. For 2009/10, the relative poverty line in the UK after housing costs (AHC) was £124 per week for a single adult and £214 per week for couples with no dependents.¹

The main drawback of absolute and relative poverty measures is that they are not based on people’s needs for income but rather, on how their income compares to a specific threshold. Furthermore, these measures may not account for the whole range of resources that people could have.

Relative and absolute poverty measures can be considered before housing costs (BHC) or after housing costs (AHC). The rationale for differentiating between these two measures is that housing costs may represent a significant outlay for some households (for example, for those living in London), so it would be unfair to compare their income to those living in cheaper locations. However, AHC income measures may understate the improvement in the quality of living of those who decide to pay more for better quality housing. Therefore, UK Government relative income poverty measures are reported both before and after housing costs.

Relative and absolute poverty measures may be sensitive to whether or not some groups qualify for disability benefits
Specific groups of people who qualify for disability benefits may have a total higher income. Therefore, relative or absolute poverty measures may classify people in receipt of disability benefits as being closer to a specific poverty threshold than people who do not qualify for such benefits.

Whether disability benefits are considered or not when estimating relative or absolute poverty measures is a debatable point. These benefits form part of specific groups’ income. However, it must be noted that people with disabilities face higher costs to pay for special care and for special goods and services.

For pensioners, it has been estimated that the costs associated with a higher severity disability represent 131% of single pensioners’ average income and 37% of pensioner couples’ average income.² This also reveals that couples may face lower costs than single pensioners as a result of care being provided by one of the partners and because pensioner couples may share equipment and disability-related resources when both members have a disability.

According to some studies, if disability benefits are excluded from household incomes, the equivalent net incomes of disabled people are reduced by an average of 10%. Doing this implies a poverty rate for

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¹ DWP (2011) table 2.2db
² PPI (2009), p.24
disabled people of more than 30%, compared to the 25% shown by the official statistics.\footnote{National Equality Panel (2010), p.189.}

**Other income-based measures**

Other income-based measures such as minimum budget standards and measures of income and financial resources have tried to address some of the drawbacks of absolute and relative measures.

Minimum income standards are based on feedback from a sample of the population on the types of goods and services they deem necessary to stay out of poverty.\footnote{See Bradshaw et al (2008) for a discussion of the Minimum Income Standards measures developed by the Joseph Rowntree Foundation.} The value of this standard “basket” of goods and services is then used to assess whether people’s income is above or below this level. Some observers argue that such measures are very sensitive to the specific type of goods and services selected and they also highlight that these measures do not account for the increased income needs of those who are frail, disabled or suffer from long-term illness.\footnote{See Fisher, G. (2007)}

Measures of household incomes and resources aim to measure pensioners’ resources not only in terms of their income but also in terms of their access to financial resources. Thus, as well as income, these measures typically include benefits in kind, assets and investments, goods and services, etc.\footnote{See for example the ONS Wealth and Assets Survey and the English Longitudinal Survey of Ageing developed by the Institute for Fiscal Studies.}

Critics highlight that some assets may be more volatile and illiquid than others (e.g. property vs. savings). Also, they argue that it is hard to assume that households remain stable over time and that assets and income are not shared equally across households.

**Consumption-based measures**

Consumption-based measures try to address the fact that income may be volatile and this may affect the reliability of income-based poverty measures. By contrast, people may try to smooth their consumption over time in order to meet their needs. In so doing, they may decide how to use their income, financial assets and other resources. Therefore, consumption is more likely to capture the effects of saving and spending down savings, the ownership of durable goods such as houses and cars, and access to credit.\footnote{In the UK, the Institute for Fiscal Studies has developed a methodology for establishing relative spending lines, using data from the Expenditure and Food Survey (EFS). See: Brewer et al (2006).}

The Institute for Fiscal Studies developed a relative consumption measure for older people in the UK.\footnote{Brewer et al (2006)} This measure used spending as a proxy of consumption and it did not include spending on housing. The spending of pensioners was then compared to the median spending rates of the whole
UK population to establish the percentage of pensioners falling below 50%, 60% and 70% of median spending.

The most significant weakness of consumption-based measures is that they usually use expenditure as a proxy for consumption. In a highly monetised economy such as that of the UK, most goods and services are paid for. Thus, expenditure can be a proxy for the consumption of fuel, clothing, etc. However, other goods and services are more complicated to measure from an expenditure approach. For example, people consume housing resources even though they may not pay for them. People who have fully paid for their home still ‘consume’ this resource on a daily basis, even though they do not pay for it. Likewise, the services of a personal computer can be consumed (used) on a daily basis, even though the computer may have been paid in full months or years ago. Thus, a proper consumption measure should include the use (consumption) of different goods. This can be done through specific depreciation indexes, but these are complicated to compute as the characteristics and lifespans of each good have to be taken into account.12

Some proponents of consumption-based poverty measures suggest that consumption can be decomposed into food, non-food, durable goods and housing.13 However, measuring durable goods presents its complications as it is necessary to construct a depreciation index in order to measure the real ‘consumption’ of specific goods. Similarly, housing costs should include the monetary value of the ‘service’ provided by the house to the individual through its consumption, which is difficult to estimate.

Consumption-based poverty measures have had an impact on UK policy. Since 2003, the Department of Energy and Climate Change reports every year a measure of fuel poverty that is based on fuel spending. A household is assumed to be in fuel poverty when it spends more than 10% of its income to maintain a home heated at a minimum standard (21°C in the main living areas and 18°C elsewhere). The latest data available for 2008 shows the largest number of fuel poor households fall into the single person over the age of 60 category, with over one third of all fuel poor households in England falling into this category.14

One advantage of consumption-based measures is that they allow levels of deprivation to be observed. Simply put, deprivation can be understood as unmet needs.15 People try to meet needs through consumption, which implies using their resources. Thus, consumption-based measures may directly measure deprivation.

12 Price (2008)p. 151
13 See Deaton and Zaidi (2002)
14 DECC (2010) p.26
15 Townsend (1979)
Poverty and deprivation
Deprivation is defined as ‘an enforced lack of socially perceived necessities.’\(^{16}\) This can be measured through surveying whether individuals have what are widely regarded as necessities.\(^{17}\)

This approach has two main weaknesses:\(^{18}\)
• the high degree of subjectivity in determining what a ‘necessity’ is and what is not,
• whether people decide to forgo an item because they cannot afford it or because they decide not to have it.

Some researchers have asked respondents to clarify if they do not have or consume an item because they do not ‘need’ it, or because they ‘cannot afford’ it.\(^{19}\) Similarly, other researchers have experimented with using weights that vary with the degree of support for each item being essential (‘preference weighting’) or with the percentage of the population that has each item (‘prevalence weighting’).\(^{20}\)

Direct deprivation measures have been used by the UK Government, together with income-based measures, to assess the progress towards eradicating child poverty by 2020.\(^{21}\)

Box 1: Pensioner material deprivation index

The Department for Work and Pensions (DWP) has recently developed an index of pensioner material deprivation, which is based on a set of 15 questions in which respondents are asked whether or not they have specific items.\(^{22}\)

Respondents are also asked to choose from a list the reason why they have or do not have specific items. The responses are weighted using a ‘prevalence weighting’ method, which attaches a weight to each response according to the prevalence of the item in the overall pensioner population. The resulting index ranges from 0 (having all items) to 100 (lacking all items). A threshold score of 20 is used to indicate whether a pensioner is materially deprived.

The figures for 2009/10\(^{23}\) show that 9% of pensioners aged 65 years and over, representing 0.9 million out of a total of 9.6 million, are materially deprived.

\(^{16}\) Mack and Lansley (1985), p. 39
\(^{17}\) See Townsend (1979,1987)
\(^{18}\) For a good summary of the critiques to this approach, see Halleröd (1995)
\(^{19}\) See Halleröd (1994)
\(^{20}\) Willits (2006)
\(^{21}\) DWP (2003)
\(^{22}\) See DWP (2011) p.167
\(^{23}\) See DWP (2011), table 6.7tr
No measure of poverty is perfect
The different income-based and consumption-based measures have certain limitations in accounting for poverty among different groups in the society. For example, income-based poverty lines are easy to establish. However, because they are based on average income levels, they cannot account for the increased needs of those ill, frail, or with caring needs. This is particularly relevant for older people.

Consumption-based measures have the advantage of more accurately identifying whether people can meet their needs and, in this sense, they may identify deprivation. However, there are considerable methodological challenges for applying these measures as expenditure is usually not a perfect proxy for consumption. This is especially problematic when trying to account for housing consumption.

Income-based and consumption-based poverty measures only partially overlap
There is only a partial overlap between low consumption and low income. Previous research has found that in 2002/03 10% of the population were income poor after housing costs (AHC), 13% were poor on both consumption and income measures (which also excluded housing costs) and only 9% were poor on consumption measures.

DWP figures show that only 3% of pensioners in 2008/09 were both below the 60% of median income threshold, AHC, and materially deprived. By contrast, 13% of pensioners were below the income poverty threshold but not materially deprived and 8% of pensioners were materially deprived but not below the 60% of median income threshold.

This lack of overlap may reflect the fact that both types of measures are capturing different aspects of poverty.

There are even greater differences between consumption and income-based measures of poverty among pensioners
As people enter into retirement they tend to spend a smaller proportion of their income on average. Research for DWP has shown that median expenditure as a percentage of income reduced from 92% for those aged 60-64 to 64% for those aged over 85.

These findings may suggest that pensioners may try to save part of their income for unknown emergencies or personal care in very old age. This is not likely to be the case for pensioners on very low-incomes, who are likely to consume most of their income. However, those pensioners who are not classified as income poor may save part of their income to meet future needs.

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24 Price (2008)
25 Brewer et al (2006), figure 3.1
26 See DWP (2011)
27 Finch and Kemp (2006) table 2.5
needs. This may suggest that consumption measures may overestimate poverty among some groups of pensioners that are not income poor.

In sum, many analysts may prefer to focus on income poverty as it is very difficult to monitor or project other measures over time, although the DWP material deprivation index is a welcomed innovation in this area.

**Poverty is associated with negative outcomes for individuals, groups and society**

Poverty is associated with a range of negative outcomes\(^\text{28}\) for individuals and households experiencing it:

- Both absolute and relative poverty are associated with poorer health outcomes and lower life expectancies.\(^\text{29}\) For example, people born into the lowest socio-economic class in the UK in 2002 – 2005, are expected to live around seven years less on average than people born into the highest socio-economic class.\(^\text{30}\)
- Poverty can affect the quality of the lives people lead. People experiencing poverty are often unable to participate socially in ways that most people take for granted, for example poverty can prevent people from seeing friends and family.
- Poverty can cause stress and worry for people who feel they need to budget constantly and deprive themselves in order to ensure that they can pay bills.\(^\text{31}\)
- Poverty is associated with social exclusion - ‘a short-hand term for what can happen when people or areas have a combination of linked problems, such as unemployment, discrimination, poor skills, low-incomes, poor housing, high crime and family breakdown. These problems are linked and mutually reinforcing.’\(^\text{32}\)

Poverty is important not just because of the negative effects it has on individuals but also because of the cost to society of dealing with the social outcomes that can be associated with poverty such as poor physical and mental health, unemployment, social problems (such as crime), and social unrest. There is a link between poverty levels in a society and poorer outcomes across all income groups.\(^\text{33}\) Poverty diminishes the lives not only of those who directly experience it, but of society as a whole.

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\(^{28}\) For an exploration of the indicators associated with poverty see MacInnes et al. (2009)

\(^{29}\) WHO (2008)

\(^{30}\) ONS Longitudinal Study estimates of life expectancy, by social class 1972-2005, Table 1

\(^{31}\) Help the Aged (2007)

\(^{32}\) www.cabinetoffice.gov.uk/social_exclusion_task_force/context.aspx

Older people are more likely to be vulnerable, which affects their experiences of poverty

Being an older person in the UK is associated with several factors which can impact the effects that poverty has. Older people are more likely to be vulnerable than working-age people because they are more likely to:

- Suffer from isolation\(^34\)
- Be frail or have physical health problems or disabilities\(^35\)
- Have mental health problems\(^36\)
- Be victims of crime or, at least, feel threatened by crime\(^37\)

The experience of pensioners in poverty is also unique because pensioners have less means of escaping poverty through work than people of working-age. Because older people are more likely to be vulnerable than working-age people, an experience of poverty can often reinforce the other vulnerabilities suffered by older people.

Conclusion

There are two broad types of poverty measures: income-based and consumption-based.

The most common income-based measures are absolute and relative poverty measures, which are based on establishing the share of the population with incomes below a certain income that is common across all countries (absolute poverty) or that is related to the average income of a society (relative poverty).

While absolute and relative income poverty measures are easy to establish, they may not reflect the whole range of resources that people could have. Furthermore, they may be sensitive to whether or not disability benefits are considered as part of specific groups’ income.

Consumption-based measures use spending on different items as a proxy of consumption and they aim to establish the proportion of people under relative spending thresholds.

However, the main drawback of consumption-based measures is that they use spending as a proxy of consumption. This may introduce methodological problems when trying to measure durable goods or housing, as it is the ‘consumption’ of the specific good rather than its price that needs to be measured. Consumption-based measures may overstate levels of poverty if individuals are saving a portion of their current income for future consumption.

\(^34\) Victor et al. (2009)
\(^35\) Topinkova, E. (2008)
\(^36\) Knapp et al (2007)
\(^37\) Moore, S. (2010)
No measure of poverty is perfect and evidence suggests that income and consumption-based measures may only partially overlap. However, relative income poverty measures are a powerful tool for exploring what proportion of the population may be living under a specific income threshold. Relative income poverty measures may also play a key role in informing policy aimed at its reduction.
Chapter two: recent trends in pensioner income poverty

1.8 million pensioners were living in relative income-poverty in 2009/10

The Government’s most recent figures suggest that 1.8 million pensioners were living in households with household incomes below the relative poverty line of 60% of median income, after housing costs (AHC) in 2009/10. This represents 16% of a total of 11.5 million pensioners. The percentage of pensioners living in relative poverty has fallen over the last three decades. In 1979, 2.6 million, 29% of total pensioners, were living in household with incomes below the relative poverty line AHC. This number peaked in 1989 at 3.9 million, 39% of pensioners (Chart 1).

Since 1989, pensioner poverty has fallen as a result of falls in the relative AHC income of working-age people and the introduction of means-tested benefits, most notably, Minimum Income Guarantee (MIG) in 1999, and its

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38 As explained in the previous chapter (page 11), relative poverty measures can be reported before housing costs (BHC) or after housing costs (AHC). This report focuses mostly on AHC measures as they allow to account for the differences in housing costs across the country and thus to better compare pensioners’ income poverty levels.
39 DWP (2011) Households Below Average Income, table 6.3tr, 6.1tr
40 1979 is the first year where poverty data on a broadly consistent basis is available from the Households Below Average Income series, a National Statistics source
41 DWP (2011) table 6.1tr
42 Working-age people have been spending more money on housing costs over the last few decades
successor, Pension Credit since 2003. Rises in the cost of living saw pensioner poverty increase from 2006 to 2008.

Because the poverty line is relative, falls in the incomes of the working-age population tend to accompany decreases in relative poverty for pensioners and, conversely, growth in the incomes of working-age people often will cause a rise in relative poverty for pensioners. The introduction of the Minimum Income Guarantee and Pension Credit meant that pensioner poverty continued to decrease, even during a period of economic growth.

**Income poverty does not affect all pensioner groups equally**

Some pensioner groups are more likely than others to experience poverty, because, for example, of working patterns characteristic to those groups, or because some groups, such as the disabled and older pensioners, are more likely to be vulnerable, have high expenditure needs and/or face discrimination.

Pensioner groups that are more likely to be in income poverty are:

- Women – 16% of women pensioners are in relative income poverty, compared to 14% of male pensioners.
- Ethnic minority pensioners – pensioners from ethnic minority groups are more likely to be in income poverty than white pensioners, though numbers differ between different ethnic groups. 16% of white pensioners are in relative income poverty, compared to 33% of asian pensioners and 27% of black pensioners.
- Pensioners living in certain regions – the percentage of pensioners in income poverty varies by region. The regions with the highest percentage of pensioners in income poverty are: Inner London (28%), Northern Ireland (21%), and East Midlands, Yorkshire and the Humber and Outer London (18%). Pensioner poverty varies throughout the rest of the UK between 13% and 17%.

**Pensioner poverty fell after the introduction of Pension Credit but has risen since**

In 2003, the Government introduced Pension Credit, a means-tested benefit that replaced the less generous MIG. Guarantee Credit (the first element of PENSION CREDIT) tops up a pensioner’s state pension income to £137.35 per week in 2011/12 (£209.70 per week for a couple). People who have saved for their retirement may also receive further income in the form of Savings Credit (the second element of PENSION CREDIT) of up to a maximum amount of £20.52 per week in 2011/12 (£27.09 per week for a couple).

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43 These replaced Income Support for pensioners and were more generous
44 Age Concern (2008)
45 PPI (2008)
46 All data from DWP (2011) Tables 6.5db & 6.6db, AHC (AHC)
47 Not all pensioners will necessarily receive the minimum amount of Pension Credit. Some pensioners may not claim Pension Credit even if they are entitled to it and some pensioners may not be eligible for full Pension Credit because of the value of their capital.
The income received from Pension Credit is separate from other benefits that cover housing costs (including council tax) and disability. Pensioners who receive Pension Credit could be eligible for other benefits as well. Pension Credit is a means-tested benefit. In 2008/09 between 38% and 27% of pensioners entitled to any of the two components of Pension Credit failed to claim them. Non-take-up of Pension Credit can cause pensioners’ household income to fall below the Guarantee Credit level.

After the introduction of Pension Credit in 2003, the numbers of pensioners in relative poverty fell from 24% to 21%, and continued to fall until 2005/06 when it reached 17% (1.8 million pensioners). Pensioner poverty increased between 2006 and 2008 to around 2 million, before decreasing again in 2009/10 to 1.8 million.

Previous state pension reforms may help reduce pensioner poverty

The Pensions Act 2007 contained reforms to the state pension system that accelerated the move towards a flat-rate structure for the State Second Pension (S2P), reduced the number of National Insurance Contribution years needed for a full Basic State Pension (BSP) and made it easier for carers and people with disabilities to earn National Insurance (NI) credits to qualify for state pensions. The Pensions Act 2007 also included a requirement for the Secretary of State to review the level of the Guarantee Credit and to increase it by a percentage which is not less than the relevant...
increase in earnings over the review period. The Act also included provision to uprate the BSP by the growth in earnings by end of the current Parliament (2015). However, this provision was never implemented as the Coalition Government announced in June 2010 that the BSP would be uprated by the highest of earnings growth, growth in the CPI or 2.5%, the ‘triple-lock,’ from April 2011.

These reforms are likely to result in an increase in the level of income that many pensioners receive from state pensions in the future. Some groups, such as women, carers, and very low earners are likely to benefit substantially more from the reforms than people who already tended to accrue enough qualifying years to receive the full rate of BSP.\textsuperscript{51} Future cohorts of working-age people are likely to reach retirement with higher state pension entitlement, which could reduce the chances of some future pensioners living in poverty.

Assessing the impact of state pension reforms on pensioner poverty
In 2007, the Institute for Fiscal Studies (IFS) analysed the potential impact on pensioner poverty levels of a series of state pension reforms as initially laid out in the 2006 Pensions White Paper together with a variety of alternative policy scenarios. In this analysis, the IFS focused on relative income poverty levels at 50%, 60% and 70% of the median income before housing costs (BHC).

On the main poverty projections under the provisions of the 2006 Pensions White Paper, the IFS paper concluded that:\textsuperscript{52}

\begin{itemize}
  \item private incomes of pensioners would rise over time regardless of policy because of new generations of workers reaching retirement with higher earnings;
  \item such income growth would arise mainly from a projected growth in income from employment, but also from other sources, including private pensions;
  \item relative pensioner poverty would stop falling and remain fairly stable until 2017/18; (Chart 3). However, projected poverty levels would be very sensitive to the assumption of how fast median income would grow over time for the population as a whole.\textsuperscript{53}
\end{itemize}

\textsuperscript{51} For example, men with full National Insurance records.
\textsuperscript{52} Brewer et. al. (2007)
\textsuperscript{53} The IFS assumed a median income real growth of 1.8\%
On the poverty projections under a number of policy scenarios, the IFS paper found that:

- increasing Pension Credit in line with earnings had a much greater effect on preventing pensioner poverty than uprating BSP in line with earnings;
- a universal BSP for everyone above the State Pension Age (SPA) would reduce pensioner poverty much more significantly but at a higher cost (an additional £6.9bn a year in 07/08 terms compared to the Government’s 2006 White Paper proposal) than if done only for those retiring in 2012-13 and later (an additional £1.9bn a year in 07/08 terms);
- a universal BSP at Pension Credit level would be the most expensive and most effective option in reducing pensioner poverty;
- increasing take-up of existing means-tested benefits would be the most cost-effective way of reducing pensioner poverty, costing an additional £3.9bn in 07/08 earnings terms. It was projected that the number of pensioners falling below 60% of median income would fall by around 25% by 2017/18 if full take-up of means-tested benefits were achieved.15

The IFS paper highlighted that while the full take-up of existing means-tested benefits was the most cost effective measure, there would be some practical limitations to this policy because there would always be some people who would not claim benefits even if they were entitled to them. In

15 Brewer et. al. (2007)
16 IFS (2011) table 5.5 p.66
this sense, the paper noted that the effects of this option should be considered with caution. The paper also noted that any government would need the cooperation of non-eligible recipients to implement a policy to achieve full take up of means-tested benefits, which might require extra resources to be expended. Nonetheless, analysing this option showed the impact that such a policy could have on reducing pensioner poverty.

**Conclusion**
According to the Government’s most recent estimates 1.8 million pensioners, 16% of all pensioners, were living on incomes below the relative poverty line of 60% of median income, after housing costs (AHC) in 2009/10.

Since 1989, pensioner poverty has fallen as a result of falls in the relative AHC income of working-age people and as a consequence of the introduction of Minimum Income Guarantee in 1999 and its successor Pension Credit since 2003.

Income poverty does not affect all pensioner groups equally. Women, ethnic minority pensioners and pensioners living in certain regions are more likely to live in income poverty.

Previous state pension reforms may help reduce pensioner poverty in the future. The Pensions Act 2007 reduced the number of National Insurance Contributions (NIC) required to qualify for a full Basic State Pension (BSP) and it made it easier for carers and people with disabilities to earn National Insurance (NI) credits to qualify for state pensions.

In 2007 the IFS analysed the potential impact on pensioner relative income poverty of a number of state pension reforms, as initially laid out in the 2006 Whiter Paper, together with a variety of alternative policy scenarios. The paper found that a universal Basic State Pension at Pension Credit level would be the most effective but also the most expensive option in reducing pensioner poverty. It also found that full take up of existing benefits would be the most cost-effective measure to reduce pensioner poverty.
**Approach of this report**

This report uses relative income poverty measures to model future poverty levels under current policy and under alternative policy scenarios. Given that poverty is such a complex phenomenon that is difficult to assess with only one measure, this report also employs pensioners’ income distribution and the number of pensioners eligible for means-tested benefits to supplement the analysis of relative income poverty. Therefore, the measures employed are the following:

- **The proportions of pensioners with incomes below 50%, 60% and 70% of median income in the UK.** These measures are useful for exploring how the incomes of pensioners could vary relative to the population as a whole as a result of different policies. Using three different relative income poverty levels (50%, 60%, 70%) allows identification of the differences in the proportion of pensioners under the different poverty lines. Both before housing costs (BHC) and after housing cost (AHC) measures are projected, but the main focus of this report is on AHC figures because they allow comparability among households living in different regions.

- **The distribution of pensioners’ income.** This measure is useful for examining how different policies may affect the pensioner income distribution and to assess whether there is a projected increasing or decreasing income gap between different pensioner groups over time. Two measures are used:
  a) the actual distribution of pensioner household incomes at specific times
  b) the ratio of pensioners’ income in the 90th percentile of the distribution to those in the 10th percentile over time.

- **The number of pensioners eligible for Housing Benefit, Council Tax Benefit and Pension Credit.** Eligibility for means-tested benefits depends on pensioners’ income levels. Therefore, this measure allows an assessment of how many pensioners fall below the Government’s threshold for these benefits and, in this sense, this measure provides further support to the relative income poverty analysis.

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56 The relative poverty line used by the UK Government
57 For the current policy scenario and the non single-tier options modelled in this report, the Guarantee Credit and the Savings Credit elements of Pension Credit are considered. For the single-tier options only the Guarantee Credit element is considered as under these options the Savings Credit is assumed to be abolished, following the proposals laid out in the Government’s Green Paper on state pension reform.
Chapter three: how is pensioner poverty likely to evolve under current policy?

This chapter describes the different reforms legislated since 2007. The chapter then analyses how pensioner poverty measures are likely to evolve in the future under current policy.

Box 2: Baseline model

A baseline model is employed to estimate future pensioner income and poverty measures under current policy, which is based on PPI models and data from Households Below Average Income (HBAI). There is always some uncertainty around the estimation of relative poverty measures given that it is necessary to make some assumptions on future median income growth. Therefore, the main purpose of this model is to serve as a baseline for comparison with other policy alternatives analysed in Chapter 4, rather than providing definite projections of pensioner poverty under the current system.

A number of legislated reforms will impact on pensioner income poverty levels
Since 2007, a number of legislated state pension reforms have reduced the number of years necessary to qualify for state pensions and introduced National Insurance (NI) credits for some groups. In addition, since 2010 the Coalition Government has implemented a series of changes to the uprating mechanism and the levels of state pensions and other benefits paid. All these reforms may have an impact on projected pensioner relative income poverty levels in the future.

The provisions legislated for in the Pensions Act 2007
The Pensions Act 2007 included many provisions that will significantly affect the amount of pension that future pensioners will receive from the state. Specifically, the provisions included:

- Lowering the threshold for State Second Pension (S2P) entitlement and a progressive move towards a flat-rate benefit of £1.60 for each year of National Insurance Contributions (NIC) paid by the mid-2030s.
- The introduction of credits for S2P entitlement for specific groups such as disabled people and carers.
- A reduction in the number of years of National Insurance Contributions required to qualify for a full Basic State Pension (BSP) from 49 years for men and 40 for women to 30 years for both since 2010.

The provisions introduced by the current Coalition Government
The Coalition Government has introduced changes to the uprating of state pension benefits. From April 2011, the BSP will be uprated by the higher of earnings growth, growth in the Consumer Prices Index (CPI) or 2.5%, a mechanism known as the triple-lock. This measure is likely to provide a
higher BSP in the future than under the previous policy or proposals, which indexed BSP to prices or earnings.\textsuperscript{58} This is because in periods of low earnings growth or inflation the BSP will increase by at least 2.5%.

Since April 2011, the State Second Pension (S2P) will be uprated by the growth in the CPI. Unlike the ‘triple-lock’ mechanism, the value of the S2P may erode compared to that of the BSP in times of low inflation. Previously, S2P was uprated by Retail Prices Index (RPI).

It was announced in Budget 2011 that the additional increases to winter fuel payments paid in 2010 will not be paid in 2011. This means that, from April 2011, Winter Fuel Payments (WFP) for households in which one of the members is aged 60 or over will be £200, compared to £250 in 2010. For households in which one member is aged 80 or over, WFP will be £300, compared to £400 in 2010.

Some measures will have a short-term impact on pensioner income poverty levels, while others will have a long-term impact

Some of the current policies already legislated for are likely to have a short-term impact on current pensioners’ income levels, while others will have a more long-term impact on the income of future pensioners.

For example, the changes in the number of qualifying years for the BSP and the flat-rating of the S2P will have a long-term impact, as they are likely to affect poverty levels among future pensioners, who will accrue entitlement under these new provisions while still of working-age.

By contrast, other measures such as the different uprating mechanisms for the BSP, the S2P and other benefits may have a short-term impact on current pensioners’ income and poverty levels. This is because these measures will impact on the pension incomes of pensioners who have already reached State Pension Age (SPA).

Methodological approach

The analysis in this chapter and the following one will consider the proportion of pensioners living in households with household incomes under 50%, 60% and 70% of median incomes, both before and after housing costs (BHC and AHC, respectively). Using thresholds other than 60% of the median income allows an assessment of how the share of pensioners under the different thresholds changes compared to the 60% of the median income threshold, generally used in UK Government figures.

The analysis will also use the distribution of pensioners’ income and it will calculate the ratio of the income of pensioners in the 90\textsuperscript{th} percentile of the income distribution to those in the 10\textsuperscript{th} percentile. Analysing this ratio is

\textsuperscript{58} The Pensions Act 2007 had included provision to uprate the BSP by the growth in earnings by the end of the current Parliament (2015). However, this provision was never implemented given the Coalition Government’s decision to uprate the BSP by the ‘triple-lock’ from April 2011.
useful to see whether there is an increasing or decreasing income gap among the different groups of pensioners over time.

Finally, the analysis in this chapter and the following one will also consider the number of pensioners eligible for the following means-tested benefits:

- Housing Benefit,
- Council Tax Benefit,
- Guarantee Credit element of Pension Credit.

Given that eligibility for these benefits is linked to income levels, analysing the percentage of pensioners eligible for these benefits may provide additional information on whether pensioners will be at risk of being income deprived.

To model future relative pensioner income poverty levels it is necessary to estimate:

- future pensioner income levels,
- future median income levels for the whole UK population.

The PPI Distributional Model and data from the Household Below Average Income (HBAI) series for 2007/08 are used to estimate future pensioner household incomes under the current policy scenario in this chapter, and under alternative policy scenarios in the following two chapters. The PPI Aggregate Model is used to estimate future government expenditure on state pensions and other benefits paid to pensioners under the current and alternative policy scenarios set out in Chapter 6.\(^{59}\)

It has been necessary to identify the housing costs for each household, in order to calculate a household income measure before and after housing costs (BHC and AHC, respectively). Housing costs are assumed to increase with average earnings.

Poverty measures are based on household income, which includes income from non-pensioners that live in the same household as pensioners. The income of non-pensioners livings in the same household as pensioners is included in the model and it is assumed that it increases each year in line with average earnings.

Finally, it has also been necessary to adjust the net household income measure by household size, so it is possible to compare households of different sizes. This is because smaller households need less income to achieve a particular standard of living. This adjustment is done by using a method called equivalisation, which implies multiplying each household net income by a factor that is related to the size of the household.

\(^{59}\) For more details on the PPI models see technical appendix.
Assumptions on median income growth for the whole UK population
To model future income for the whole population, it has been necessary to
make some assumptions about the possible future growth in the median
income of the total UK population. It should be noted that this is a very
difficult economic indicator to predict accurately. As a result we use
different short-term and long-term assumptions and then undertake
sensitivity analysis to demonstrate the sensitivity of the results to changed
levels of future median income growth for the population as a whole.

The current economic situation is very different from the long-term
economic conditions normally assumed in modelling long-term projections.
Therefore, this report makes different assumptions for estimating median
earnings growth in the short-term (up to 2014) and in the long-term
(beyond 2014).

Short-term assumptions
Projections of median income growth originally developed by the Institute
for Fiscal Studies (IFS) to estimate levels of child poverty are used for
projecting the growth rate of median incomes from 2008 to 2014. The IFS
work uses assumptions from the Office of Budget Responsibility (OBR),
which are also used in the PPI models. The IFS work also uses assumptions
on the growth of housing costs that are similar to those used in PPI models
(in line with average earnings). More details about how these projections
have been made can be found in the technical annex.

Long-term assumptions
To project the growth rates of median incomes in the long-term, historical
median income data from the HBAI survey has been examined to derive an
assumption of future median income growth that is consistent with the
assumption in the PPI models on prices (RPI and CPI) and earnings
growth. The central long-term assumption is that median incomes BHC
could increase by RPI + 1.5% per annum, and by RPI + 1% AHC. Further
details and discussion on this assumption can be found in the technical
annex. Table 2 summarises the short and long-term assumptions, in real
terms.

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60 Brewer and Joyce (2010)
Table 2: Short and long-term assumptions on median income growth (real terms)

<table>
<thead>
<tr>
<th>Year</th>
<th>Before housing costs (BHC)</th>
<th>After housing costs (AHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007/08 (baseline)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2008/09</td>
<td>+0.7%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>2009/10</td>
<td>+1.0%</td>
<td>+0.6%</td>
</tr>
<tr>
<td>2010/11</td>
<td>-3.2%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>2011/12</td>
<td>-0.2%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>2012/13</td>
<td>+0.2%</td>
<td>+1.5%</td>
</tr>
<tr>
<td>2013/14</td>
<td>+0.1%</td>
<td>+1.1%</td>
</tr>
<tr>
<td>2014/15 and after</td>
<td>1.5% above RPI; 0.1% below average earnings growth</td>
<td>1% above RPI; 0.6% below average earnings growth</td>
</tr>
</tbody>
</table>

Sensitivity of the results

Given the significant uncertainties around the projected income levels, it is necessary to present the sensitivity of the long-term results. Consequently, this chapter analyses the sensitivity of the relative poverty estimate at 60% of median income to a +/- 0.3% and to a +/- 0.5% change in the long-term median income growth assumption for the UK population as a whole.

Pensioners in receipt of disability benefits may have a higher total income than pensioners who do not qualify for such benefits. This means that relative poverty estimates may also be sensitive to whether or not disability benefits are considered as part of pensioners’ income. Therefore, this chapter also provides the sensitivity of the main relative poverty estimate (at 60% of median income) to the inclusion of disability benefits as part of pensioners’ income.

Poverty projections and Government expenditure on state pensions and other benefits are also sensitive to the rate of take-up of means-tested benefits among those pensioners who are eligible for them. This report analyses the sensitivity of the results to full take-up of means-tested benefits. Although it should be recognised this is very difficult to achieve in practice.

How are pensioner poverty levels likely to develop in the future under current policy?

The projected number of pensioners living in relative poverty will depend not only on the assumption of median income growth for the whole population, as described in the previous section, but also on how pensioner income is expected to evolve in the future. The legislated changes to the rules regarding eligibility for state pensions legislated in the Pensions Act 2007, together with developments in private pension provision will play a key role in the evolution of pensioners’ income and thus on the expected
number of pensioners estimated to live in relative poverty. The next section analyses how the different components of pensioner income may evolve in the future.

Data from the PPI Distributional Model and the HBAI dataset has been used to project pensioners’ income over time. This data identifies different types of individuals such as single pensioners and couples of different age. Given that pensioners are more likely to be in couples in older age, the components of retirement income for couples of 68 years of age may provide a good illustration of how the different components of pensioners’ income evolve over time (Chart 4).

Chart 4

The components of pensioners’ income are projected to change over time under current policy

Average composition of income for pensioner couples of 68 years of age, as a percentage of total income

Over the long-term, the Basic State Pension (BSP) may tend to represent, on average, a larger proportion of pensioner couples’ income. Meanwhile, income from private pensions may decline over time. Two main reasons may help to understand this pattern:

- **The uprating of the BSP by the triple-lock**: this means that in the future the BSP could represent a larger proportion of pensioners’ income.
- **The declining role of Defined Benefit (DB) private pension provision**: as DB schemes continue to close and more people are enrolled into Defined Contribution (DC) schemes, income from private pensions could represent a smaller proportion of pensioners’ income.

61 Analysis based on PPI Distributional Model
The evolution of relative poverty under current policy
The next section shows how the percentage of pensioners living in relative poverty may evolve in the future under current policy and under our central assumption about future possible growth in median incomes for the population as a whole.

The figures presented in Charts 5 and 6 show relative income poverty levels before housing costs (BHC) and after housing costs (AHC). However, the rest of the analysis in this chapter focuses on AHC figures.

The figures are projected to 2025. The main reason not to project them further is that the sensitivity of the estimated poverty lines to the long-term assumptions on median income growth becomes much more significant beyond 2025, and there is a lower degree of certainty about the accuracy of the results.

Chart 5

Relative pensioner income poverty levels (BHC) are projected to decrease significantly in the short term and more slowly in the long term under current policy
Projected percentage of pensioners living in households with household income below different income poverty thresholds, BHC

The projections in Chart 5 suggest that relative pensioner income poverty at the different thresholds of 50%, 60% and 70% of median income, BHC, may have decreased between 2008 and 2011. In 2008, around 23% of pensioners had incomes that were below the 60% of median income threshold BHC, with this figure projected to reduce to around 18% of pensioners by 2011. This may reflect the impact of the economic recession, which has led to an estimated decline in median income levels in recent years.

62 PPI Distributional Model
Beyond 2011, relative income poverty levels BHC are projected to continue their downwards trend at a slower pace, and are projected to reach 15% of pensioners by 2025, using the 60% of median income poverty threshold. This may reflect the impact of legislated reforms that affect the income of current and future pensioners, such as the indexation of Basic State Pension by the ‘triple-lock’ and, further into the future, the reduction in the number of years necessary to qualify for state pensions, which benefits pensioners retiring from 2010 onwards.

Pensioner income poverty levels show a similar overall downwards trend AHC (Chart 6). However, the fall in relative poverty levels in the short-term is not projected to be as significant as BHC. This may be related to the fact that housing costs, which are assumed to increase in line with average earnings, are rising faster than incomes. PPI projections suggest that around 15% of pensioners lived in households with incomes that were below the 60% of median income threshold AHC in 2011, with this figure projected to reduce to around 11% of pensioners by 2025 under the Government’s current policy.

Over the long-term, the decrease in relative poverty levels is more significant AHC, with around 11% of pensioners falling below 60% of median income AHC, compared to around 15% of pensioners BHC by 2025.

Chart 6

![Chart 6](image_url)

Relative pensioner income poverty levels AHC are projected to decrease more slowly than BHC levels

Projected percentage of pensioners living in households with household income below different income poverty thresholds, AHC

- **SHORT TERM**
  - 70% of median income

- **LONG TERM**
  - 60% of median income
  - 50% of median income

6 The small increase in poverty levels between 2012 and 2013 is related to the change in the median income growth assumption between those years, which increases from -0.2% to +1.5% in real terms.
Relative poverty thresholds are affected by the evolution in median incomes. This introduces a significant element of uncertainty in projecting future possible levels of relative income poverty among pensioners. The next section examines the sensitivity of the results to the long-term assumption about future growth in median incomes, to the inclusion or exclusion of disability benefits and to varying the assumption about take-up of means-tested benefits.

**Relative income poverty measures are sensitive to the long-term assumption on median income growth**

Any analysis that is based on assumptions of median income growth into the future needs to consider the sensitivity of the results to possible changes in the assumptions. This is to reflect the uncertainties of predicting how median incomes for the population as a whole will evolve in the future. Chart 7 shows the sensitivity of the estimate of relative income poverty at 60% of median income to changes in the median income growth assumption, AHC.

![Chart 7](image)

The relative poverty estimate is sensitive to changes in the median income growth assumptions with the funnel of uncertainty increasing over time. The median income growth assumption has been assumed to vary by +/-0.3% and by +/-0.5%.

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64 PPI Distributional Model
There is a variation of up to around +/− 4% in the projected percentage of pensioners falling below 60% of median income by 2025, AHC, depending on which assumption is considered.

If the sensitivity of relative poverty estimates BHC is considered, there is a variation of up to around +/− 3% by 2025. The funnel of uncertainty gets considerably larger by 2050 which is why the estimates are only presented up to 2025.

All the sensitivity scenarios for the relative poverty estimate at 60% of median income AHC suggest that relative pensioner poverty tends to decrease over time. However, the relative poverty estimate BHC when assuming a +0.5% change in the median income growth assumption tends to slightly increase over time.

**Inclusion of disability benefits in the calculation of pensioner household income for measuring pensioner income poverty**

Pensioners in receipt of disability benefits may obtain a higher total income than pensioners who do not receive such benefits. However, it is important to highlight that the income of a household that includes a disabled person has to stretch further than the income of a comparable household without a disabled member to meet particular needs. As a result, relative income poverty measures may be sensitive to whether or not these benefits are included as part of pensioners’ total income (Chart 8).

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65 Burchardt and Zaidi (2003)
66 PPI Distributional Model
Not including disability benefits as part of pensioner households’ income leads to an average increase of 3% in the percentage of pensioners living in households with household incomes below 60% of median income. This finding is consistent with previous research that has found that relative poverty estimates are sensitive to the inclusion of disability benefits as part of specific groups’ income.\textsuperscript{67}

**The effect of full take-up of means-tested benefits**

Means-tested benefits can be a powerful tool to address pensioner poverty. However, such benefits must be claimed and official data shows that not all those entitled to such benefits claim them. For example, in 2008/09 between 38% and 27% of pensioners entitled to any of the two components of Pension Credit fail to claim them, while 13% to 20% of pensioners failed to claim Housing Benefit.\textsuperscript{68} Full-take up of means-tested benefits under current policy could have a significant impact on pensioner poverty (Chart 9).

**Chart 9\textsuperscript{69}**

In 2011, 9% of pensioners are projected to fall below the 60% of median income threshold if full take-up of means-tested benefits is achieved, compared to around 15% of pensioners under current policy. By 2025, relative income poverty levels could fall to around 6% of pensioners, compared to 11% under current policy.

\textsuperscript{67} National Equality Panel (2010)
\textsuperscript{68} DWP (2010) tables 3.3.1 and 4.3.1, respectively
\textsuperscript{69} PPI Distributional Model
However, it should be noted that full take-up of means-tested benefits is very difficult to achieve and it would require the identification and cooperation of eligible non-recipients and significant extra resources to be spent by Government in benefit payments. As a result, Government spending on state pensions and other benefits would tend to increase (Table 3).

Table 3: Government spending on state pensions and other benefits under current policy assuming full take-up of means-tested benefits (as % of GDP)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>5.1%</td>
<td>5.4%</td>
<td>5.5%</td>
<td>5.7%</td>
<td>6.4%</td>
<td>7.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Current Policy with full take-up of means-tested benefits</td>
<td>5.3%</td>
<td>5.5%</td>
<td>5.7%</td>
<td>5.9%</td>
<td>6.7%</td>
<td>7.5%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Full take-up of means-tested benefits would increase Government spending on state pensions and other benefits by an average of 0.2% of GDP in between 2012 and 2050, compared to current policy.

Alternative measures of pensioner poverty
Using additional poverty measures, which may not necessarily use income-based poverty thresholds, could provide some useful additional information on the phenomenon of income poverty among pensioners. Therefore, the rest of this chapter looks at the impact of current policy on pensioners’ income distribution and on the number of pensioners eligible for means-tested benefits.

The impact of current policy on pensioners’ income distribution
Analysing the distribution of pensioner incomes may provide useful information regarding the possible income inequalities among different groups of pensioners. If a significant percentage of pensioners are projected to cluster towards the extremes of the distribution over time, this may suggest that the income differences among pensioners may increase over time. To illustrate this point the projected income distribution of pensioner households in 2008 and 2025 are compared (Charts 10 and 11).
18% of pensioners were living in households with household incomes below the relative poverty line in 2007/8

Projected distribution of pensioner household income in 2008, AHC

11% of pensioners are projected to be living in households with household incomes below the relative poverty line in 2025 under current policy

Projected distribution of pensioners’ household income in 2025, AHC
The data in Charts 10 and 11 show the percentage of pensioners living in households by the household’s net equivalised weekly income as well as the position of the projected relative poverty threshold at 60% of median income. The comparison between the two charts shows that around 18% of pensioners were living in households with household income below the poverty threshold of 60% of median income in 2008 (Chart 10), while this value is projected to fall to around 11% of pensioners in 2025 under current policy (Chart 11). More detailed analysis shows that, under current policy, around 2% of pensioners are projected to live in households with incomes of £100 or less per week in 2008, while this number is projected to fall below 1% in 2025.

The income band with the highest percentage of pensioners (representing households with net equivalised incomes of more than £220 and up to £230 per week, which contains around 3% of pensioners) peaks just below the poverty line of £230.30 per week in 2008. By contrast, by 2025 the income band with the highest percentage of pensioners (household income of more than £230 and up to 240 per week with around 3% of pensioners) is projected to be above the poverty threshold of £219.22 per week. This constitutes further evidence of the projected declining pensioner relative income poverty levels illustrated in Chart 6.

The projected ratio of the 90th percentile to the 10th percentile of pensioner households’ incomes may show further evidence of how the differences in income between the two extreme groups of the income distribution evolve over time. A declining ratio may show that the income differences among pensioners may decrease over time.

To calculate the projected ratios of high to low pensioner households’ incomes, the PPI Distributional Model and HBAI data for 2007/08 are used to project pensioner incomes. Because it is not necessary to make an assumption on median income growth in the long-term, as is the case when projecting relative poverty lines, the ratio can be projected in the long-term with a better degree of certainty. Therefore, the results shown in the following charts are projected to 2050 (Chart 12).

27 The last income band corresponds to incomes of £1,000 or more. This is the reason why it represents a higher proportion of pensioners than the income bands right below it. If the graph could be extended into further income bands of £10 each, it would show a declining percentage of pensioner households as the income bands increase.
In 2008, the income ratio was projected to be around 3.7, meaning that the income of pensioner households in the top of the income distribution (90th percentile) was around 3.7 times higher than that of pensioner households in the bottom of the distribution (10th percentile). The ratio is projected to peak by 2016 at around 4. Over the long-term, the income ratio tends to decline. A number of reasons may explain this pattern in pensioners’ income ratios over time:

- Pensioners at the top of the income distribution may be more likely to benefit from full entitlement to the Basic State Pension (BSP), Defined Benefit (DB) pensions and other sources of income in the short-term. However, as income from DB pensions becomes less common in the long-term due to the closure of such schemes, the income of pensioners in this group tends to decline and so does the ratio.

- Pensioners at the bottom of the distribution (10th percentile), may be more likely to only qualify for the BSP and to have a low take-up of means-tested benefits. Over the long-term, as the BSP is uprated by the triple-lock and pensioners benefit from the state pension reforms legislated since 2007 that make it easier to qualify for a full BSP and State Second Pension (S2P), the income of pensioners in the bottom of the income distribution tends to increase and the ratio tends to decline.

73 PPI Distributional Model
The impact of current policy on the number of pensioners eligible for means-tested benefits

Calculating eligibility for means-tested benefits may provide additional useful evidence of how pensioner poverty may evolve in the future. If more pensioners are eligible for such benefits this may indicate that poverty among pensioners is still a prevalent issue.

There may be differences in the projected eligibility figures for single pensioners and couples. Eligibility for means-tested benefits is related to pensioners’ income. Means-tested benefits have an individual and a couple-based threshold above which they are not paid. The couple-based threshold is around 1.6 times higher than the individual-based threshold. By contrast, entitlement to state pensions is based on an individual basis. Therefore, a couple with full entitlement to state pensions may be more likely to be above their means-testing threshold than a single person qualifying for a full state pension.

Under current policy, eligibility for means-tested benefits is projected to decline over the long-term (Chart 13).

Chart 13

In 2008 the percentage of pensioner households eligible for any means-tested benefit is projected to have been around 60%, while by 2050 this number is projected to fall to around 45%. Eligibility of Pension Credit only, is also projected to decline over time under current policy, from
around 50% of pensioner households in 2008 to around 35% in 2050.\textsuperscript{75} There is some further variation in the projected percentage of pensioner households entitled to the different means-tested benefits (Table 4).

**Table 4: Proportion of pensioner households eligible for Pension Credit, Housing Benefit, Council Tax Benefit and for any means-tested benefit, under current policy (rounded to nearest 5%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Benefit</th>
<th>Council Tax Benefit</th>
<th>Pension Credit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>45%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>35%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Given that eligibility for means-tested benefits is based on an individual and on couple-based income threshold, there are differences in the projected eligibility among the different type of pensioners (Table 5).

**Table 5: Projected percentage of different groups of pensioners eligible for any means-tested benefit, under current policy (rounded to nearest 5%)**

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2030</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Women</td>
<td>90%</td>
<td>75%</td>
<td>70%</td>
</tr>
<tr>
<td>Single Men</td>
<td>55%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>Couples</td>
<td>40%</td>
<td>30%</td>
<td>25%</td>
</tr>
</tbody>
</table>

The percentage of pensioner couples eligible for any means-tested benefit, which includes Pension Credit, Housing Benefit and Council Tax Benefit, is projected to decline significantly over time, with around 25% of all pensioner couples qualifying for any means-tested benefits by 2050. Meanwhile, the percentage of single pensioners eligible for any means-tested benefit is also projected to decline, although remaining at higher levels than that of couples by 2050. Around 70% of single women pensioners are projected to qualify for any means-tested benefit by 2050, compared to around 50% of single men.

**Conclusion**

The state pension reforms legislated for in the Pensions Act 2007, in addition to the changes implemented by the Coalition Government may reduce future levels of pensioner poverty. This chapter has found that under current policy:

- The projected percentage of pensioners living in households with income below the different income poverty thresholds is projected to decrease over the long-term.
- PPI projections suggest that around 15% of pensioners were living in households with household income below the 60% of median income

\textsuperscript{75} Eligibility of Pension Credit only was calculated as the sum of the percentage of pensioners entitled to Guarantee Credit only, to Savings Credit only and to Guarantee Credit and Savings Credit.
threshold after housing costs (AHC) in 2011, with this figure projected to reduce to around 11% of pensioners by 2025 under the Government’s current policy and assuming that the Guarantee Credit is indexed in line with average earnings.

- The results on the percentage of pensioners living in households with household income below 60% of median income are sensitive to changes in the long-term median income growth assumption for the whole population. All the sensitivity scenarios AHC suggest that relative poverty levels tend to decrease over time. However, before housing costs (BHC), the relative poverty estimate tends to slightly increase over the long-term when considering a +0.5% change in the long-term median income growth assumption.

- The relative poverty estimates are also sensitive to whether disability benefits are considered as part of pensioners’ income. There is an average 3% increase in the percentage of pensioners living in households with household income below 60% of median income if disability benefits are not considered as part of pensioners’ income.

- If full take-up of means-tested benefits is assumed, the percentage of pensioners falling below 60% of median income could fall to around 6% in 2025, compared to around 11% under current policy. However, achieving full take-up of means-tested benefits may involve spending significant resources. PPI projections indicate that if full-take-up is achieved the Government would spend an average of 0.3% of GDP more on state pensions and benefits.

- The ratio between the income of pensioners in the top and the bottom of the income distribution tends to decrease over the long-term under current policy.

- The percentage of pensioners eligible for means-tested benefits tends to decrease over the long-term under a continuation of current policy.
Chapter four: how could policy options that change some benefits within the current system affect future levels of pensioner poverty?

This chapter and the following one analyse how pensioner incomes and poverty levels could evolve in the future under alternative policy scenarios. Some of the policy options considered are rooted in reality and reflect policy options that the Government is currently considering or are variants of the Government’s current policy proposals. Others are hypothetical “what if” policy scenarios - shown to illustrate the potential implications of a particular policy for possible future levels of income poverty among pensioners.

In modelling this particular set of policy options the PPI is not lobbying for the Government to adopt one particular policy over another. Rather the intention is to illustrate the potential consequences of a particular policy approach for possible future levels of pensioner poverty so that decision makers and those with an interest in pensions policy can make informed policy choices.

This chapter analyses a set of alternative policy options which would change the level of future benefits given to pensioners, such as the future level of the Guarantee Credit and Winter Fuel Payments (WFP) which could have an impact on future levels of pensioner income and poverty levels.

For each policy option this chapter considers:

- The potential impact of each policy on projected future levels of pensioner poverty.
- The potential implication for the future distribution of pensioner incomes and income inequality among pensioners.
- Future levels of eligibility for means-tested benefits.

Three alternative policy scenarios are considered
The three policy options consider the impact of changes to existing benefits within the current system:

- **Increasing the Guarantee Credit to £140 a week (in 2010/11 earnings terms) from 2012 and indexing it in line with the ‘triple-lock.’** This option would allow for a more generous level of Guarantee Credit in the future than under the current policy (£137.35 for single pensioners in 2011/12). In addition, uprating it in line with the ‘triple-lock’ would ensure that in times of low economic growth or low inflation, the Basic State Pension (BSP) and the Guarantee Credit would be uprated by at least 2.5%.

- **Uprating the current level of Guarantee Credit in line with CPI from 2012.** The Consumer Prices Index (CPI) is used. This policy option would be less generous than the previous option as in times
of low inflation but high earnings growth the Guarantee Credit would only increase in line with CPI.

- **Setting Winter Fuel Payments (WFP) back to their 2010 levels and indexing them by the ‘triple-lock’ from 2011.** This policy option would provide a higher level of WFP than the ones announced in Budget 2011 and it would also ensure that they are uprated every year by at least 2.5%.

How are relative poverty levels likely to evolve under the different options that change some benefits within the current system?

There are significant differences in the projected percentage of pensioners living in households with household income below the relative income poverty threshold of 60% of median income under the different non single-tier options analysed (Chart 14).

**Chart 14**

There is significant variation in the projected poverty levels under the options that change some benefits within the current system

Projected percentage of pensioners living in households with household income below 60% of median income, AHC

Under a continuation of current policy the percentage of pensioners living in households with household income below the 60% of median income threshold AHC is projected to decline from 15% of pensioners in 2011, to 11% of pensioners by 2025.

If the Government continues with current policy but chose to index the Guarantee Credit to the higher of earnings, CPI or 2.5% - the triple-lock, instead of to earnings, there is likely to be a greater reduction in future pensioner poverty levels. By 2025 the projections suggest that 9% of

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PPI Distributional Model
pensioners might be living in households in relative income poverty, compared to 11% of pensioners under current policy.

By contrast, indexing the Guarantee Credit to the Consumer Prices Index (CPI) is expected to increase the projected percentage of pensioners living in households with household income falling below the relative income poverty threshold of 60% of median income over the long-term. Under this policy option, the projections suggest that 19% of pensioners could be living in relative income poverty by 2025, compared to 11% of pensioners under current policy.

Setting Winter Fuel Payments (WFP) to 2010 levels indexed by the ‘triple-lock’ is expected to reduce the projected percentage of pensioners living in households with household income falling below 60% of median income to 10% of pensioners by 2025 compared to 11% of pensioners under current policy.

This diverging trend illustrates that indexing benefits to prices rather than to the triple-lock of prices, earnings or 2.5% may have a significant impact on pensioner incomes and thus on relative income poverty levels. The results also illustrate the key relevance of Guarantee Credit in pensioner household income.

There are some differences in the projected ratio of pensioner household income under the different options that change some benefits within the current system

The ratio of pensioner households’ incomes in the 90th percentile of the income distribution to those in the 10th percentile under the options that entail an increase in the Guarantee Credit to £140 per week indexed by the ‘triple-lock’ and returning Winter Fuel Payments to 2010 levels and also indexing them by the ‘triple-lock,’ tend to be quite close to the results projected under current policy (Chart 15). By contrast, the income ratio increases significantly under the option that entails indexing the Guarantee Credit to changes in the Consumer Prices Index (CPI) indicating an increase in income inequality among pensioners.
Pensioner income ratios vary under the different options that change some benefits within the current system

Projected ratios of pensioner household income in the 90th and 10th centiles of the income distribution, AHC

As the Guarantee Credit may tend to represent a more significant proportion of total income for pensioners in the bottom of the income distribution, indexing the Guarantee Credit only to CPI may erode its value in the long-term when compared to the evolution of earnings. This may result in a lower income for pensioners in the lower end of the income distribution (10th percentile) when compared to those at the top (90th percentile). Therefore, this leads to an increasing ratio over time. The ratio peaks around 2026 and it then decreases slightly over time. However, it is projected to remain at a much higher level than the ratios projected under the other options. A high ratio indicates high levels of income inequality among pensioner households. In sum, the results illustrate the relevance of Guarantee Credit in the income of pensioners in the bottom of the income distribution.

There are significant variations in the projected percentage of pensioners qualifying for means-tested benefits under the different options that change some benefits within the current system

The projected number of pensioners qualifying for means-tested benefits will vary significantly under some of the options considered (Chart 16).

Whether the Guarantee Credit is indexed by the ‘triple-lock’ or only by growth in the CPI has a significant impact on the projected number of pensioner households qualifying for means-tested benefits.

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PPI Distributional Model
Eligibility for means-tested benefits is projected to vary significantly under the different options that change some benefits within the current system.

Projected percentage of all pensioner households eligible for any means-tested benefit

Under the option in which the Guarantee Credit is indexed by the ‘triple-lock’ the percentage of pensioner households qualifying for means-tested benefits is projected to increase significantly over the long-term. These results may illustrate the key role played by Guarantee Credit in pensioners’ total income, and more specifically for low-income pensioners. As the value of the Guarantee Credit increases in real terms over time, more pensioner households become eligible for means-testing benefits. By contrast, when the Guarantee Credit is indexed only to CPI, its real value tends to erode over time and so a reducing percentage of pensioner households are projected to become eligible for means-tested benefits over the long-term.

The data also suggests some variation in terms of eligibility for means-tested benefits when considering the different types of benefits (Table 6).

78 PPI Distributional Model
Table 6: Proportion of pensioner households eligible for Pension Credit, Housing Benefit, Council Tax Benefit and for any means-tested benefit under the different options that change some benefits within the current system (rounded to nearest 5%)  

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Benefit</th>
<th>Council Tax Benefit</th>
<th>Pension Credit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>45%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>35%</td>
<td>45%</td>
</tr>
</tbody>
</table>

As current policy but Guarantee Credit indexed to triple-lock, instead of earnings from 2012  

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Benefit</th>
<th>Council Tax Benefit</th>
<th>Pension Credit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>45%</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
</tr>
</tbody>
</table>

As current policy but Guarantee Credit indexed to CPI, instead of earnings from 2012  

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Benefit</th>
<th>Council Tax Benefit</th>
<th>Pension Credit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2030</td>
<td>15%</td>
<td>25%</td>
<td>5%</td>
<td>30%</td>
</tr>
<tr>
<td>2050</td>
<td>5%</td>
<td>10%</td>
<td>0%</td>
<td>10%</td>
</tr>
</tbody>
</table>

As current policy but winter fuel payments re-instated to 2010 level and indexed to triple-lock  

<table>
<thead>
<tr>
<th>Year</th>
<th>Housing Benefit</th>
<th>Council Tax Benefit</th>
<th>Pension Credit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>45%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>35%</td>
<td>45%</td>
</tr>
</tbody>
</table>

Indexing the Guarantee Credit by the ‘triple-lock’ increases its value in real terms, leading to a growing percentage of pensioner households qualifying for means tested benefits over the long-term. However, the data shows that while 50% of pensioner households are projected to qualify for Pension Credit by 2050, just 15% are projected to qualify for Housing Benefit.

The results also provide further evidence that indexing the Guarantee Credit to CPI erodes its value in tackling pensioner poverty over time. Therefore over the long-term, a small percentage of pensioner households are entitled to means-tested benefits. For example, almost no households are projected to be entitled to Pension Credit by 2050 under this option, while only around 10% of households are entitled to Council Tax Benefit or to Housing Benefit.

**Conclusion**

Under the different options that change some benefits within the current system this chapter has found that:

- There is a significant variation in the percentage of pensioners living in households with household income projected to fall below 60% of median income.
• Increasing the Guarantee Credit to £140 per week from 2012 and indexing it by the ‘triple-lock’ is projected to lead to a decrease in the percentage of pensioners living in households with household income below 60% of median income to around 9% by 2025, compared to around 11% under current policy.

• Setting the Winter Fuel Payments (WFP) to 2010 levels from 2011 and indexing them by the ‘triple-lock’ is also projected to lead to a decrease in the percentage of pensioners living in households with household income below 60% of median income to around 10% by 2025.

• By contrast, indexing the Guarantee Credit to prices (following the changes in the CPI) is likely to increase the percentage of pensioners living in households with household income below 60% of median income to around 19% by 2025.

• Similar diverging patterns are observed when considering the distribution of pensioner incomes and the percentage of pensioner households eligible for means-tested benefits. Indexing the Guarantee Credit to prices is likely to increase the projected ratio of pensioners in the top of the income distribution (90th percentile) to those in the bottom (10th percentile), compared to current policy, leading to greater inequality among pensioners’ incomes.

• These findings highlight the key role played by Guarantee Credit in overall pensioner income and therefore on relative income poverty levels. This is even more relevant for low-income pensioners.
Chapter five: how could policy options that introduce a single-tier pension affect future levels of pensioner poverty?

The chapter analyses the impact on pensioner income poverty of three reform options to the state pension system that are variants of the Government’s proposal set out in its recent Green Paper for a flat-rate single-tier pension of £140 a week in 2010 earnings terms.

The Coalition Government Green Paper on state pension reform
The Coalition Government has launched a Green Paper to consult on reforms to the current state pension system. Two options are proposed:

• An acceleration of the reforms set out in the Pensions Act 2007 so that the state pension system evolves into a two-tier flat-rate structure more quickly. Under this option, the State Second Pension (S2P) would accrue a flat-rate benefit from 2020, rather than from around 2030, as previously legislated.

• A more radical reform towards a single-tier flat-rate pension set above the current level of the Guarantee Credit element of Pension Credit (estimated at £140 per week in 2010 earnings terms in the Green Paper). This option would replace the current Basic State Pension (BSP) and S2P. Savings Credit and Contracting-Out would be abolished as part of this reform. Individuals would need 30 years of National Insurance contributions to qualify for the full amount. The Government has made clear that the reforms would only apply to future pensioners from the date at which they are implemented.

Both state pension reform options laid out in the Government’s Green Paper are likely to have some impact on future pensioners’ income and poverty levels. However, the first option – an acceleration of the current reforms to make S2P accrual flat-rate by 2020 instead of around 2030 is relatively similar to current policy – albeit implemented on a faster timeline. As a result this option has not been modelled in this report as the outcomes for pensioner poverty are unlikely to be significantly different from current policy. However, a full comparative assessment of both options has been analysed in a recent PPI report.

Three single-tier options are considered
This chapter analyses the impact on pensioner poverty levels of implementing the Green Paper’s second option in addition to other options that would apply to all pensioners:

• Introducing a single-tier pension of £140 per week for new pensioners from 2016. This is similar to the Green Paper’s second reform option. Although the paper does not specify when the

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80 See PPI (2011)
single-tier pension would be introduced, 2016 is likely to be the earliest date in the next Parliament that it could be introduced. Therefore, that date has been considered. This option would apply only to new pensioners reaching State Pension Age and retiring from 2016.

- **Introducing a single-tier option for all pensioners from 2016.** This option is likely to be more costly for Government than the previous option, as existing and new pensioners would receive the single-tier pension of £140 per week from 2016, provided that they have the required number of years of National Insurance Contributions.

- **Introducing a single-tier pension for new pensioners from 2016 combined with an increase in the Guarantee Credit to £140 per week (in 2010/11 earnings terms) for existing pensioners from 2012 and uprated by the ‘triple-lock’ of the highest of earnings growth, growth in the CPI or 2.5%.** This option would be a cost compromise between the other two single-tier options considered in the report, as existing pensioners would have to claim and qualify for Guarantee Credit. In addition, not all existing pensioners may qualify for the Basic State Pension because of incomplete National Insurance Contributions (NIC’s) records.

How are relative poverty levels likely to evolve under the different single-tier options?

Pensioner relative income poverty is projected to decline under the different single-tier policy options, compared to the projections under current policy (Chart 17).

**Chart 17**

The single tier policy options all reduce projected relative poverty levels compared to current policy.

Projected percentage of pensioners living in households with household incomes below 60% of median income, AHC

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81 PPI Distributional Model
Under current policy the percentage of pensioners living in households with household income below the relative poverty threshold of 60% of median income after housing costs (AHC) is projected to decline from 15% in 2011 to 11% in 2025.

Under all of the single-tier options the percentage of pensioners living in households with household income below 60% of median income AHC is projected to fall below the levels projected under current policy.

Introducing a single-tier option for new pensioners only from 2016, as laid out in the Government’s Green Paper, reduces the projected percentage of pensioners living in households in relative poverty by 2025 from around 11% of pensioners under current policy to around 10% under the Green Paper proposal.

Introducing a single-tier pension for all pensioners (both future and current pensioners) from 2016 is projected to have the most significant impact on reducing future levels of pensioner poverty. PPI projections suggest that 7% of pensioners could be living in households with household income below the relative poverty line of 60% of median income by 2025 under a single-tier pension introduced for everyone, compared to 11% of pensioners under current policy. However, this option is likely to be the most costly for Government to implement, as explained in the next chapter.

Introducing a single-tier option from 2016 for new pensioners combined with an increase in the Guarantee Credit to £140 per week from 2012 and ‘triple-locked’ has a less significant effect in reducing projected relative poverty levels than introducing a single-tier for all pensioners from 2016. By 2025, around 8% of pensioners are projected to live in households with incomes below the 60% of median income threshold, compared to around 11% of pensioners under current policy.

Nonetheless, introducing a single-tier for new pensioners from 2016 combined with an increase in the Guarantee Credit to £140 per week from 2012 and ‘triple-locked’ has a more significant effect in reducing pensioner relative poverty levels over the long-term than current policy or introducing a single-tier for new pensioners from 2016.

A single-tier pension is likely to affect the distribution of pensioner incomes over the long-term
The introduction of a single-tier pension is likely to affect the distribution of pensioner incomes. However, the effect could be more significant for those pensioners retiring from the date in which the system is implemented, given that this group of pensioners could have a higher state pension than pensioners retiring under the current rules. The effect can be analysed by comparing the income distribution of pensioner households containing pensioners retiring from 2016 by 2025 under current policy and under the option that introduces a single-tier pension of £140 per week in
2010 earnings terms for new pensioners - similar to the one proposed by the Government in the Green Paper (Charts 18 and 19).

**Chart 18**

Under current policy 9% of pensioners where the head of the household retires after 2016 are projected to live in households in relative poverty by 2025.

*Projected distribution of pensioner household incomes by 2025, for households where the head of the household reaches State Pension Age from 2016.*

**Chart 19**

Under a single tier state pension 7% of pensioners where the head of the household retires from 2016 are projected to live in relative poverty by 2025.

*Projected distribution of pensioner household incomes by 2025, for households where the head of the household reaches State Pension Age from 2016.*
Under the single-tier option as proposed in the Government’s Green Paper around 7% of pensioners where the head of the household retires from 2016 are projected to fall below the poverty threshold of 60% of median income by 2025. This compares to around 9% under current policy. The difference is significant and it illustrates the impact that the introduction of a single-tier option would have in terms of the pensioner income distribution.

When considering the whole pensioner population, there is some variation in the ratio of pensioner households at the top of the income distribution (90th percentile) to those at the bottom (10th percentile) under the different single-tier options (Chart 20).

Chart 20

There is some variation in the projected income ratio under the different single-tier options

![Chart 20](image)

The projected trend in the income ratios under the different single-tier options is broadly similar to that under current policy, indicating that there is a decreasing income inequality among pensioners over time. However, introducing a single-tier pension for all pensioners from 2016, leads to a sharp decrease in the ratio between 2016 and 2017, from around 4 to 3.7. This indicates the immediate effect that introducing this option would have on reducing income inequality and, more broadly, pensioner poverty.
Eligibility for means-tested benefits is projected to decline in the long-term under the different single-tier options

The projected number of pensioners eligible for any means-tested benefits is expected to decline in the long-term under the different single-tier options analysed, compared to current policy (Chart 21). This provides further support for the projected decline in relative income poverty.

Chart 21

The results show that introducing a single-tier pension for new pensioners from 2016 or increasing the Guarantee Credit to £140 per week and triple-locked from 2012 in addition to a single-tier pension for new pensioners do not seem to have a distinguishable effect on eligibility for means-tested benefits until around 2022, compared to current policy. Two reasons may explain this trend:

- Under the option that entails the introduction of a single-tier pension for new pensioners from 2016, similar to the Government’s Green Paper proposal, pensioners retiring under the new system represent a relatively small group in the first years compared to the rest of pensioners retiring under previous rules.
- Under the option that entails the introduction of a single-tier pension for new pensioners from 2016 and raising the Guarantee Credit to £140 per week for current pensioners from 2012, indexing it by the triple-lock, the percentage of pensioners retiring under the new single-tier represent a small proportion of total pensioners and the effect of the triple-lock on the Guarantee Credit for current pensioners becomes more significant over the medium term.

85 PPI Distributional Model
By contrast, introducing a single-tier pension for all pensioners from 2016, leads to a sharp fall in eligibility for means-tested benefits between 2016 and 2017. Over the long-term, the projected number of eligible pensioner households tends to gradually converge with those projected under the option of a single-tier for all pensioners from 2016. This is due to the fact that by 2050, a significant number of pensioners are expected to receive a single-tier pension.

The results also show that there is some variation in eligibility when considering the different type of benefits (Table 7).

Table 7: Proportion of pensioner households eligible for Pension Credit, Housing Benefit, Council Tax Benefit and for any means-tested benefit under the different single-tier options (rounded to nearest 5%)

<table>
<thead>
<tr>
<th>As current policy</th>
<th>Year</th>
<th>Pension Credit</th>
<th>Council Tax Benefit</th>
<th>Housing Benefit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>45%</td>
<td>40%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>35%</td>
<td>45%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Single-tier pension as in Green Paper introduced for future pensioners only from 2016</th>
<th>Year</th>
<th>Pension Credit</th>
<th>Council Tax Benefit</th>
<th>Housing Benefit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>15%</td>
<td>40%</td>
<td>20%</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>5%</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Single-tier pension introduced for all pensioners (current and future) from 2016</th>
<th>Year</th>
<th>Pension Credit</th>
<th>Council Tax Benefit</th>
<th>Housing Benefit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>15%</td>
<td>40%</td>
<td>10%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>5%</td>
<td>35%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Single-tier pension for future pensioners only and Guarantee Credit indexed to “triple-lock” instead of earnings from 2012</th>
<th>Year</th>
<th>Pension Credit</th>
<th>Council Tax Benefit</th>
<th>Housing Benefit</th>
<th>Any means-tested benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>20%</td>
<td>55%</td>
<td>50%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>20%</td>
<td>40%</td>
<td>25%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td>15%</td>
<td>35%</td>
<td>20%</td>
<td>40%</td>
<td></td>
</tr>
</tbody>
</table>

Under all the different single-tier options, eligibility for Pension Credit decreases over time. However, the decrease is more significant over the long-term when considering the introduction of a single-tier pension for new pensioners from 2016 (as proposed in the Government’s Green Paper) and when considering the introduction of a single-tier pension for all pensioners from 2016.

Conclusion
Under the different single-tier options considered in this chapter:
- Pensioner income poverty levels tend to decrease over the long-term, compared to current policy.
- Introducing a single-tier pension for all pensioners from 2016 has the
most significant impact on of the three single-tier options considered on reducing the percentage of pensioners living in households with household income below 60% of median income. This option also leads to a sharp fall in relative poverty levels right after its introduction in 2016, which reflects the immediate effect that it would have in reducing pensioner poverty. However, this option is also the most costly for the Government to implement.

- The introduction of a single-tier pension for pensioners retiring from 2016 as set out in the Government’s Green Paper would reduce the percentage of pensioners living in households with household income below 60% of median income to 10% of pensioners by 2025, compared to 11% under current policy.
- The introduction of a single-tier pension for future pensioners only combined with raising the Guarantee Credit to £140 per week for current pensioners, indexed by the triple-lock, could reduce the projected percentage of pensioners living in income poverty to around 8% of pensioners by 2025, compared to around 11% under current policy.
- The introduction of any of the single-tier options will affect the distribution of pensioner households’ incomes. However, the effect will be more significant for pensioners retiring under the new system over the long-term.
- Under all of the single-tier options considered, the percentage of pensioner households entitled to means-tested benefits is projected to be lower than under current policy over the long-term. Introducing a single-tier pension of £140 per week for all pensioners from 2016 leads to a sharp fall in eligibility for means-tested benefits, which is related to the sharp fall in relative poverty levels observed under this option.
Chapter six: what are the trade-offs and the funding options of the different policy scenarios?

The different policy scenarios analysed in the previous two chapters are likely to involve trade-offs between the costs to Government of implementing such policies and their effect on future pensioner income poverty levels. The policy options are also likely to generate different incentives to save depending on whether or not they retain means-tested benefits. Finally, each option will need to be judged in terms of how to fund them. This chapter analyses:

- the cost to Government of the different policy options in this report;
- the trade-off between the costs to Government of each policy scenario and their potential impact on pensioner income poverty levels;
- the trade-off around the maintenance or the elimination of means-tested benefits, the costs to Government and poverty reduction;
- the ways in which the increased cost to Government of the different policy options could be met.

The impact on Government spending of the options that change some benefits within the current system

There is some significant variation in the projected levels of Government spending on state pensions and other benefits under these (Chart 22 and Tables 8 and 9)

Chart 22

Eligibility for means-tested benefits is projected to vary significantly under the different options that change some benefits within the current system

Projected percentage of all pensioner households eligible for any means-tested benefit

Eligibility for means-tested benefits is projected to vary significantly under the different options that change some benefits within the current system

Projected percentage of all pensioner households eligible for any means-tested benefit

PPI Models
Table 8: Government spending on state pensions and other benefits under the different options that change some benefits within the current system, compared to current policy.\(^7\) (As % of GDP)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.5%</td>
<td>5.7%</td>
<td>6.4%</td>
<td>7.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Guarantee Credit of £140 ‘triple-locked’ from 2012</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.6%</td>
<td>5.8%</td>
<td>6.5%</td>
<td>7.5%</td>
<td>7.6%</td>
</tr>
<tr>
<td>Current level of Guarantee Credit uprated in line with CPI from 2012</td>
<td>5.1%</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.4%</td>
<td>6.0%</td>
<td>6.8%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Winter Fuel Payments at 2010 levels ‘triple-locked from 2011</td>
<td>5.1%</td>
<td>5.4%</td>
<td>5.6%</td>
<td>5.8%</td>
<td>6.6%</td>
<td>7.5%</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

Table 9: Difference in Government spending on state pensions and other benefits, compared to current policy (in £ bn 2011 earnings terms)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>77.9</td>
<td>84.1</td>
<td>87.6</td>
<td>91.8</td>
<td>103.2</td>
<td>118.4</td>
<td>118.7</td>
</tr>
<tr>
<td>Guarantee Credit of £140 ‘triple-locked’ from 2012</td>
<td>+0.5</td>
<td>+0.6</td>
<td>+0.8</td>
<td>+1.3</td>
<td>+1.9</td>
<td>+3.3</td>
<td>+4.2</td>
</tr>
<tr>
<td>Current level of Guarantee Credit uprated in line with CPI from 2012</td>
<td>-</td>
<td>-2.6</td>
<td>-3.9</td>
<td>-5.8</td>
<td>-7.2</td>
<td>-8.6</td>
<td>-7.7</td>
</tr>
<tr>
<td>Winter Fuel Payments at 2010 levels ‘triple-locked from 2011</td>
<td>+0.5</td>
<td>+0.9</td>
<td>+1.2</td>
<td>+1.6</td>
<td>+2.1</td>
<td>+3.0</td>
<td>+3.6</td>
</tr>
</tbody>
</table>

Increasing the Guarantee Credit to £140 per week and indexing it by the ‘triple-lock’ is the most expensive option for the Government over the long-term, compared to current policy. Under this option the Government is projected to increase spending on state pensions and other benefits by around 0.1% of GDP by 2025. However this is expected to increase by around 0.3% of GDP (£4.2bn in 2011 earnings terms) by 2050, compared to current policy.

\(^7\) State pensions includes: Basic State Pension (BSP) and State Second Pension (S2P) or Single-tier Pension depending on the option. Other benefits includes: Pension Credit, Housing Benefit, Council Tax Benefit and other state benefits.
Uprating the current Guarantee Credit by changes in the CPI is projected to decrease government spending in state pensions and other benefits. This reflects the fact that indexing the Guarantee Credit to prices would progressively erode its value compared to the expected growth in average earnings. Under this option, the Government is expected to spend around 0.3% of GDP less than under current policy by 2025 (£5.8bn in 2011 earnings terms).

Finally, setting the Winter Fuel Payments (WFP) to 2010 levels and uprating them by the ‘triple-lock’ from 2011 will entail more government spending, an increase of around 0.1% GDP by 2025 compared to current policy.

The impact on Government spending of the single-tier options
There are also significant variation in Government spending on state pensions and other benefits under the different single-tier options (Chart 23 and Tables 10 and 11)

Chart 23

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88 PPI Models
Table 10: Government spending on state pensions and other benefits under the different single-tier options compared to current policy.\(^9\) (As % of Gross Domestic Product (GDP))

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.5%</td>
<td>5.7%</td>
<td>6.4%</td>
<td>7.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Single-tier for new pensioners from 2016</td>
<td>5.1%</td>
<td>5.3%</td>
<td>5.5%</td>
<td>5.7%</td>
<td>6.4%</td>
<td>7.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Single-tier for all pensioners from 2016</td>
<td>5.1%</td>
<td>5.7%</td>
<td>5.8%</td>
<td>5.9%</td>
<td>6.5%</td>
<td>7.3%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Single-tier for new pensioners from 2016 and Guarantee Credit of £140 per week ‘triple-locked’</td>
<td>5.1%</td>
<td>5.4%</td>
<td>5.6%</td>
<td>5.8%</td>
<td>6.4%</td>
<td>7.4%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Table 11: Difference in Government spending on state pensions and other benefits under the different single-tier options, compared to current policy (in £bn 2011 earnings terms)

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2017</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2040</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Policy</td>
<td>77.9</td>
<td>84.1</td>
<td>87.6</td>
<td>91.8</td>
<td>103.2</td>
<td>118.4</td>
<td>118.7</td>
</tr>
<tr>
<td>Single-tier for New Pensioners from 2016</td>
<td>-</td>
<td>+0.2</td>
<td>+0.2</td>
<td>-0.4</td>
<td>-0.6</td>
<td>-0.6</td>
<td>-0.2</td>
</tr>
<tr>
<td>Single-tier for all pensioners from 2016</td>
<td>-</td>
<td>+5.8</td>
<td>+4.4</td>
<td>+2.2</td>
<td>+1.3</td>
<td>-0.7</td>
<td>-0.3</td>
</tr>
<tr>
<td>Single-tier for new pensioners from 2016 and Guarantee Credit of £140 per week ‘triple-locked’</td>
<td>+0.5</td>
<td>+0.9</td>
<td>+1.0</td>
<td>+0.6</td>
<td>+0.7</td>
<td>+1.0</td>
<td>+1.7</td>
</tr>
</tbody>
</table>

Introducing a single-tier pension from 2016 for new pensioners, as laid out in the Government’s Green Paper, does not have a significant impact on government spending. This lends support to the Green Paper’s assessment that this option would be cost-neutral to government.\(^9\)

\(^9\) State pensions includes: Basic State Pension (BSP) and State Second Pension (S2P) or Single-tier Pension depending on the option. Other benefits includes: Pension Credit, Housing Benefit, Council Tax Benefit and other state benefits.

\(^9\) See DWP (2011), p. 10
Introducing a single-tier pension for all pensioners from 2016 could entail more costs for the Government, compared to current policy. Under this option, government spending on state pensions and other benefits is expected to rise sharply right after its introduction in 2016, as the Government is projected to spend an extra 0.4% of GDP in 2017 on state pensions and other benefits (around £5.8 bn in 2011 earnings terms). By 2025, Government spending is projected to increase by 0.2% of GDP by 2025 (around £2.2bn in 2011 earnings terms).\footnote{These additional costs appear low compared to previous estimates of similar policies of providing all pensioners with a flat-rate single-tier pension. This is as a result of the way in which this particular option has been modelled, in that eligibility for the single-tier pension is based on the proportion of BSP that pensioners are currently receiving. So pensioners receiving less than a full BSP are eligible for a less than full single-tier pension.}

Introducing a single-tier pension for new pensioners from 2016 combined with an increase in the Guarantee Credit to £140 for current pensioners from 2012 (triple-locked) will entail more costs to Government in the short-term compared to current policy: around 0.1% of GDP more by 2025. This represents around half the extra cost under a single-tier for all pensioners from 2016.

**The trade-offs involved between costs to Government and poverty reduction**

There are likely to be trade-offs between the cost to Government of the different policy options and the potential pensioner poverty reduction. The trade-offs are significant among the policy options that change some benefits within the current system (Table 12).
Table 12: Projected poverty levels and Government spending on state pensions and benefits under the options that change benefits within the current system

<table>
<thead>
<tr>
<th></th>
<th>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</th>
<th>Government Spending on state pensions and other benefits (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2017</td>
</tr>
<tr>
<td>Current policy – BSP triple-locked, S2P flat-rate mid-2030s, Guarantee Credit indexed to earnings.</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>As current policy but Guarantee Credit increased to £140 a week in 2010/11 earnings terms, indexed to “triple-lock” from 2012</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>As current policy but current Guarantee Credit level indexed to CPI from 2012</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td>As current policy but Winter Fuel Payments re-instated to 2010 level and indexed to “triple-lock” from 2011</td>
<td>15%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Increasing the Guarantee Credit to £140 per week in 2010/11 earnings terms and indexing it by the triple-lock is projected to reduce the percentage of pensioners living in households with household income below 60% of median income to around 9% of pensioners by 2025, compared to around 11% of pensioners under current policy. However, under this option Government spending on state pensions and other benefits is expected to increase to around 5.8% of GDP, compared to 5.7% under current policy.

Increasing Winter Fuel Payments to 2010 levels and indexing them by the triple-lock from 2011 is projected to increase Government spending on state pensions to 5.8% of GDP by 2025. However, the percentage of pensioners living in relative income poverty is projected to fall to around 10%, compared to around 11% of pensioners under current policy.

By contrast, indexing the current level of Guarantee Credit to changes in the CPI is projected to increase the percentage of pensioners living in
relative income poverty to around 19% of pensioners by 2025, but
Government spending is projected to decrease to around 5.4% of GDP, compared to 5.7% under current policy. Similar trade-offs exist among the different single-tier options (Table 13).

Table 13: Projected poverty levels and Government spending on state pensions and other benefits under the single-tier options

<table>
<thead>
<tr>
<th></th>
<th>Percentage of pensioners living in households with household income below 60% of median income, after housing costs (UK)</th>
<th>Government Spending on state pensions and other benefits (% of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2011</td>
<td>2017</td>
</tr>
<tr>
<td>Current policy – BSP triple-locked, S2P flat-rate mid-2030s, Guarantee Credit indexed to earnings.</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Single-tier pension as in Green Paper introduced for future pensioners from 2016</td>
<td>15%</td>
<td>14%</td>
</tr>
<tr>
<td>Single-tier pension introduced for all pensioners (current and future) from 2016</td>
<td>15%</td>
<td>9%</td>
</tr>
<tr>
<td>Single-tier pension for future pensioners only and Guarantee Credit indexed to the “triple-lock” from 2012</td>
<td>15%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Introducing a single-tier pension for new pensioners from 2016, as proposed in the Government’s Green Paper, is broadly cost neutral to the Government but it could reduce the percentage of pensioners living in households with household income below 60% of median income by 2025 to around 10%, compared to 11% of pensioners under current policy.

Introducing a single-tier for all pensioners (current and future) from 2016 is projected to reduce pensioner relative income poverty to around 7% of pensioners by 2025. However, under this option the Government is projected to spend around 5.9% of GDP on state pensions and other benefits, compared to around 5.7% under current policy.

Finally, introducing a single-tier pension for new pensioners from 2016, combined with an increase in the Guarantee Credit to £140 per week in 2010/11 terms and indexed by the triple-lock would reduce pensioner relative income poverty to around 8% of pensioners by 2025, while Government spending on state pensions and other benefits would increase to around 5.8% of GDP, compared to 5.7% under current policy.
In sum, there is a clear trade-off between the cost to Government of the different options and the potential reduction in relative poverty levels. Therefore, any new policy implemented by the Government will need to assess this trade-off.

The trade-offs involving the elimination or maintenance of means-tested benefits
There is also a trade-off among the maintenance or elimination of means-tested benefits, the incentives to private saving and the reduction of pensioner poverty levels (Chart 24).

Chart 24

There are trade-offs around the elimination or maintenance of means-tested benefits

Means-tested benefits can be a useful tool to reduce poverty but they may affect incentives to private saving

The three single-tier options analysed in this report consider the elimination of Savings Credit for future pensioners, as has been proposed in the Government’s Green Paper. The elimination of means-tested benefits, such as Savings Credit, may reduce the cost to Government of paying and assessing eligibility for such benefits. In addition, eliminating means-tested benefits could make clearer the incentives to save as people would not have to worry about not qualifying for them if they have some levels of private saving. However, eliminating means-tested benefits may also put some people at risk of not having enough income to live in retirement as it is hard to assume that every individual may understand the incentives to save and the risk of falling into poverty in retirement or be in a position to save for their retirement. In this sense, there is some evidence
suggesting that means-tested benefits may be a useful tool to target poverty levels among specific groups.\textsuperscript{92}

In the case of Savings Credit, its potential elimination could also reduce the number of pensioners qualifying for Housing Benefit and Council Tax Benefit. Under the current rules, the allowance above which these benefits start to reduce is equal to the maximum Guarantee Credit level (£137.35 per week for singles and £209.70 for couples in 2011-12) plus the Savings Credit (£20.52). Every extra £1 of income above the allowance reduces Housing Benefit by 65p and Council Tax Benefit by 25p. If Savings Credit is eliminated, then the allowance would be set at Guarantee Credit level. This would mean that more pensioners would potentially break the allowance and they could receive a reduced Housing and Council Tax Benefit or no benefit at all.

**Funding the different policy options**

The increased costs to Government of the different policy options could be met through a range of different changes, all of which are likely to have pros and cons. The list includes, among others, increases to the State Pension Age (SPA), a reduction in age-based concessions and increases in taxation.

Increasing the SPA would mean that state pensions would be paid to fewer people for less time on average. The delay in the SPA could also mean more tax revenue for Government as people would need to work longer and therefore continue to pay income tax. Working longer may imply a higher consumer spending from people below SPA, which could also boost VAT revenue. However, a potential larger working-age population could lead to higher Government spending on unemployment and disability benefits.\textsuperscript{93} Therefore, the impact of raising the SPA on Government expenditure is uncertain. However, the NIESR has estimated a 1 year increase in SPA, could improve government finances by £13bn on the assumption that this leads to an increase in the effective working-age of 0.6 years.\textsuperscript{94}

The Coalition Government has already put draft legislation under the consideration of Parliament to bring forward the dates for the increase in SPA for both men and women from what the previous Labour Government had legislated in the Pensions Act 1995 and 2007. Changes to the SPA can significantly affect the retirement plans of working-age people, therefore sufficient notice must be given to those potentially affected by the changes in order to allow them to delay their retirement or save more. Taking into account current labour participation rates, it is estimated that men need at least five years notice of any SPA changes but that ideally they should be given ten years. In 2010, around 76% of men aged 55 to 59 were still economically active, by age 60-64 that figure drops to 54%. Women need

\textsuperscript{92} Coady et al (2003) \\
\textsuperscript{93} PPI (2010) \\
\textsuperscript{94} NIESR (2009)
more than ten years’ notice of any SPA change. This is because women tend to exit the labour market earlier than men. In 2010, 65% of women aged 55-59 were still economically active, but by age 60-64 that figure drops to 34%.95

Other changes that could help to meet the increased costs of the different policy options entail a reduction in age-based concessions in later life such as free bus passes or help with health costs. However, changes to such support schemes could have wider political and policy implications.

Pensioners born before 6 April 1950 are eligible for free off-peak travel anywhere in England. People born after that date become eligible on women’s State Pension Age. Similar schemes are in place in Wales, Scotland and Northern Ireland. While eliminating free bus passes may appear to be a simpler option than increasing the SPA, it may also have an effect on the living standards of current and future pensioners. Old age people are more likely to suffer from isolation96 and they may have an increased need to travel on their own, at least in their early retirement years, to see their GP or their family members.

Finally, the increased costs of the different policy options could also be met through increased general taxation or by raising National Insurance Contributions rates. This option is likely to require a significant debate among stakeholders as people of working-age will end up financing the improvement in current and future pensioners’ income. Another option could be changing income tax rates, which could affect some pensioners as well, provided their income is above their income tax allowance.

**Conclusion**

This chapter has assessed the costs to Government of the different policy options, the trade-offs between costs to Government and pensioner poverty reduction and the trade-offs involved around the different policy options and their possible funding alternatives.

The chapter has found that among the options that change some benefits within the current system:

- Increasing the Guarantee Credit to £140 per week and indexing it by the ‘triple-lock’ increases Government spending on state pensions and other benefits to around 5.8% of GDP by 2025, compared to 5.7% under current policy.
- However this option could reduce poverty levels, compared to current policy. By 2025 the percentage of pensioners living in households with household income below 60% of median income is projected to fall to around 9% of pensioners, compared to 11% of pensioners under current policy.

95 See PPI (2011)
96 Victor et al. (2009)
Indexing the current level of Guarantee Credit to changes in the CPI will save money for the Government. By 2025, the Government is projected to spend around 5.4% of GDP, compared to 5.7% under current policy. However, under this option the percentage of pensioners living in households with household income below the relative poverty level of 60% of median income is projected to increase to around 19% of pensioners, compared to around 11% of pensioners under current policy.

Among the different single-tier options:

- A single-tier pension as laid out in the Government’s Green Paper is broadly cost-neutral and it will reduce the percentage of pensioners living in households with household income below 60% of median income to around 10% by 2025, compared to around 11% under current policy.
- Government spending on state pensions and other related benefits is likely to be more significant if a single-tier pension of £140 per week is implemented for all pensioners from 2016. By 2025, government spending is projected to increase to around 5.9% of GDP, compared to 5.7% under current policy. However, under this option the percentage of pensioners living in households with household income below 60% of median income is projected to be reduced to around 7% of pensioners by 2025, compared to around 11% of pensioners under current policy.
- Introducing a single-tier pension for new pensioners from 2016 combined with an increase in the Guarantee Credit to £140 and ‘triple-locked’ for current pensioners from 2012 will entail more costs to government. Under this option, the Government is projected to spend around 5.8% of GDP on state pensions and other related benefits by 2025 and the percentage of pensioners living in relative income poverty is projected to be reduced to around 8%, compared to 11% under current policy.

On the trade-offs around the elimination of means-tested benefits this chapter has found that:

- Eliminating means-tested benefits could make clearer the incentives to save as people would not have to worry about not qualifying for them if they have some levels of private saving.
- However, eliminating means-tested benefits may also put some people at risk of not having enough income to achieve an acceptable living standard in retirement as it is hard to assume that every individual may understand the incentives to save and the risk of falling into poverty in retirement.
On the funding options for the different policy options this chapter has found that:

- Increasing the SPA could reduce Government expenditure on the state pension and may mean more tax revenue for Government as people would need to work longer and therefore continue to pay income tax.
- However a potential larger working-age population could lead to higher Government spending on unemployment and disability benefits.
- The elimination of age-based concessions may affect the quality of living of current pensioners.
- A reform of the tax system would require a significant debate among stakeholders. If National Insurance Contributions are raised, people of working-age would end up financing the improvement in current and future pensioners’ income. If income tax rates are increased, some pensioners could also be affected, provided that their income is above their income tax allowance.
Technical Appendix

This appendix describes the assumptions and methodology used in the modelling for this report. Work was carried out using the Aggregate and Distributional Models from PPI’s suite of economic models, developed with funding from the Nuffield Foundation.

General assumptions
The PPI suite of models use a wide range of assumptions, covering economic assumptions (such as price inflation and earnings growth), pension assumptions (such as the level of opt out from auto enrolment, the shift from Defined Benefit to Defined Contribution). The main assumptions used in this research are:
2. Short-term (to 2016) assumptions for earnings growth, CPI and RPI in line with the Office for Budget Responsibility projections for the 2011 Budget.\(^7\)
3. Long-term earnings growth of 4.5% in nominal terms.
4. Long-term CPI inflation of 2%.
5. Long-term RPI inflation of 2.87% (consistent with the CPI inflation).
6. Long-term triple-lock indexation (the higher of earnings, CPI and 2.5%) of 4.76%.\(^8\)
7. Housing costs are assumed to grow in line with earnings.
8. Expected investment returns of 3.0% in excess of RPI, before charges corresponding to a mixed equity/bond fund.
9. The proportion of employees who are active members of private sector DB schemes is assumed to fall by 80% between 2006 and 2035 and remain constant thereafter.

Policy assumptions
Further assumptions specific to the reform options being analysed are outlined below.

Current Policy
The following assumptions have been made when modelling current policy:
- BSP is uprated in-line with the triple-lock index from 2011.
- S2P is uprated in-line with growth in CPI from 2011 and becomes a flat-rate benefit by 2034.
- The Government continues to index Guarantee Credit to earnings.
- The State Pension Age (SPA) is assumed to increase from 65 to 66 for both men and women by 2020 and then follows the SPA increases legislated in the 2007 Pension Act.

\(^7\) OBR (2011)
\(^8\) An analysis of a combined triple-lock index over a full economic cycle between 1993 and 2009 suggests that on average the triple-lock would have grown by around 0.26% more than average earnings over this period. It is therefore assumed that the triple-lock is equivalent to a nominal growth rate of 4.76%.
• From 2011, Winter Fuel Payments for households in which one of the members is aged 60 or over are £200, compared to £250 in 2010. For households in which one member is aged 80 or over, the payment is £300, compared to £400 in 2010. For subsequent years, these levels are assumed to remain fixed in cash terms.

• The take-up of income related benefits by individuals with entitlement is based upon DWP 2008/09 estimates. This has been assumed to remain un-changed in subsequent years.

In order to demonstrate the sensitivity of results to the assumptions made, the following sensitivity tests have been carried out on the current policy scenario:

• Varying the median income growth assumption for the population as a whole by +/- 0.3% and by +/- 0.5%

• Disability benefits excluded from household incomes.

• Considering the impact of 100% take-up of income related benefits by individuals with entitlement.

**Existing benefits based options**

The three options based upon changes to the existing benefits system are:

1. As current policy, but with the Guarantee Credit threshold uprated in line with the triple-lock index from 2012.

2. As current policy, but with the Guarantee Credit threshold uprated in line with CPI from 2012.

3. As current policy but with Winter Fuel Payments re-instated to their 2010 levels and then indexed in line with the triple-lock from 2011.

**Single-tier reform options**

The three single-tier variants modelled in this project are:

4. A single-tier pension as proposed in the Government’s recent Green Paper, introduced from 2016 for individuals retiring after that date only.


6. A single-tier pension as proposed in the Government’s recent Green Paper, introduced from 2016 for individuals retiring after that date only, along with a commitment from the Government to increase the Guarantee Credit in line with the triple-lock.

Under these options, the single-tier flat-rate pension is set at £140 per week in 2010 earnings terms and introduced in 2016, after which it is uprated in line with the triple-lock index. S2P accruals, and hence contracting-out, also cease from 2016.
Individuals entitled to receive the single-tier pension that have BSP and S2P/SERPS entitlement accrued before 2016 above the level of the single-tier, are paid an excess amount to match their entitlement under current policy. This amount is calculated in the first year of receipt as single-tier entitlement minus total state pension entitlement under current policy and uprated in subsequent years in-line with CPI.

Eligibility to the single-tier pension is based on the proportion of BSP that pensioners are currently receiving. So pensioners receiving less than full BSP are eligible for a less than full single-tier pension.

Contributions to Defined Benefit Schemes have been reduced to reflect the loss of the contracting-out rebate. This is also reflected by a corresponding reduction in benefits in payment to individuals that have contributed since the abolition of S2P.

Savings Credit is abolished for pensioners receiving the single-tier pension. In accordance with this, the threshold for receipt of Housing and Council Tax Benefit for pensioners is reduced by the maximum amount of Savings Credit that could otherwise have been received in that year.

**Aggregate modelling**
The Aggregate Model projects long-term state expenditure on pensions and contracted-out rebates, aggregate income from the private pensions system and the annual fiscal cost of tax relief.

The starting point for this projection is a set of official projections of the future number of people in the UK by age and sex. This is broken down further by employment status using a projection of future employment rates, which are in turn based on an official projection of activity rates. Finally, an earnings distribution is superimposed, which is based on an anonymised 1% sample of National Insurance records supplied by the Department for Work and Pensions.

Based on this labour market projection, the model projects future state expenditure on SERPS, S2P, and contracted-out rebates, as well as contributions to and income from private pensions. Future state expenditure on Basic State Pension is projected using data supplied by the Department for Work and Pensions.

**Distributional modelling**
The Distributional Model projects forward the distribution of incomes for people over State Pension Age. Types of income modelled include state and private pensions, earnings, income from investments and state means-tested benefits.

The Distributional Model is a static micro-simulation model, similar to the Policy Simulation Model used within the Department for Work and
Pensions. It uses a sample of around 8,000 UK pensioner units (either single pensioners, or couples), from the Pensioners’ Incomes Series 2007/08 dataset.

Each year, the incomes of the individuals in the dataset are adjusted in line with the Aggregate Model to take account of future changes in income, after which the Distributional Model calculates income tax liability and entitlement to means-tested benefits. The individuals are reweighted to take account of future demographic changes, ensuring that projections from the Distributional Model are consistent with those from the Aggregate Model.

**Household net equivalised incomes**

In this report, pensioner incomes under different policy scenarios have been presented as household net equivalised incomes, both before and after housing costs. In order to obtain these from Distributional Model pensioner unit incomes, incomes for multi-pensioner unit households were added together. The Households Below Average Income 2007/08 (HBAI 2007/08) dataset was used to derive net income from non-pensioners to be added to corresponding households. In addition to this, the survey was used to obtain housing cost figures for each household. For future years, both housing costs and net income from non-pensioners are assumed to grow in-line with average earnings.

Poverty measures are based on household income, which includes income from non-pensioners that live in the same household as pensioners. The income of non-pensioners living in the same household as pensioners is included in the model and it is assumed that it increases each year in line with average earnings.

To recognise that households of different sizes require different incomes in order to achieve a particular standard of living, it is necessary to adjust net household incomes using a method called ‘equivalisation’. This involves multiplying incomes by a scaling factor so that they are comparable to a standard household size, in this case, a couple with no children. The results in this project were calculated using the OECD equivalence scales.\(^{100}\)

**Poverty projection**

The poverty projections in this project compare projected pensioner net equivalised household incomes (both before and after housing costs) from the Distributional Model against a chosen poverty threshold. The thresholds used are the 50%, 60% and 70% of median income levels.

The PPI distributional model concentrates on the pensioner population; it does not calculate the all-population income distribution. Assumptions concerning this must therefore be made in order to, firstly set the poverty

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\(^{100}\) For a more detailed description of the equivalisation methodology, see appendix 2 of DWP (2007)
threshold in the first modelled year (2007/08) and secondly to project it into the future.

The starting point for the poverty threshold in 2007/08 is derived from the HBAI 2007/08 survey, which calculates the percentile of the pensioner income distribution corresponding to 60% of the median income level. The percentile, rather than income level is used to account for differences in income levels calculated by the Distributional Model and those reported in HBAI 2007/08.

For subsequent years, the all-population median income level has been assumed to grow in line with the following assumptions:

**Short-term growth in the median income level**
Recent work by the IFS in the area of child poverty has led to estimates of growth rate in the median income level of the population as a whole between 2008/09 and 2013/14. These have been estimated using similar assumptions to those used in PPI modelling and have been adopted for this report.

**Table T1: Short-term median income growth assumptions. Figures shown are relative to RPI.**

<table>
<thead>
<tr>
<th>Year</th>
<th>Before housing costs</th>
<th>After housing costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>+0.7%</td>
<td>-0.8%</td>
</tr>
<tr>
<td>2009/10</td>
<td>+1.0%</td>
<td>+0.6%</td>
</tr>
<tr>
<td>2010/11</td>
<td>-3.2%</td>
<td>-2.3%</td>
</tr>
<tr>
<td>2011/12</td>
<td>-0.2%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>2012/13</td>
<td>+0.2%</td>
<td>+1.5%</td>
</tr>
<tr>
<td>2013/14</td>
<td>+0.1%</td>
<td>+1.1%</td>
</tr>
</tbody>
</table>

**Long-term growth in the median income level**
For projecting beyond 2013/14, historical median income data from the HBAI survey was used to inform the long-term median income growth assumption. It is important that this assumption is consistent with other long-term assumptions used in the modelling, in particular, prices (RPI and CPI), earnings and housing costs. For this reason, past years which display a similar relationship between prices and earnings were considered.

The long-term median income growth assumptions used are as follows:
- Before housing costs: 1.5% in excess of RPI, 0.1% below average earnings growth.
- After housing costs: 1.0% in excess of RPI, 0.6% below average earnings growth.
Sensitivity analysis
Relative poverty projections are extremely sensitive to the median income growth assumption for the population as a whole, particularly over the long-term. For this reason, relative income poverty projections have only been made to 2025. In order to demonstrate this sensitivity, poverty projections under current policy have been given for a range; +/- 0.3% and +/- 0.5% relative to the long-term median income growth assumptions.
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Contact:
Niki Cleal, Director
Telephone: 020 7848 3744
Email: info@pensionspolicyinstitute.org.uk

Pensions Policy Institute
King’s College
26 Drury Lane
3rd Floor, Room 311
London WC2B 5RL

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