# Projections of Pension Credit entitlement

## Summary

This fact-sheet gives details of the modelling and assumptions that underpin the projections of Pension Credit entitlement in the White Paper. The key points from the analysis are:

- We project that around a third of pensioners will be eligible for Pension Credit by 2050 under the reform proposals in the White Paper. But only around one in 20 pensioners are projected to be eligible for the Guarantee Credit only.

- These estimates do not include the effect of personal accounts. So if personal accounts succeed in increasing private retirement saving the proportion on means-tested benefits would fall.

- Many of those who are entitled do not retire directly onto Pension Credit. By 2050, around one in four pensioners within 5 years of state pension age are projected to be entitled to Pension Credit (compared with about one in three overall). And only around one in fifty pensioners are projected to retire directly onto the Guarantee Credit only.

- Pension Credit eligibility becomes primarily concentrated among single pensioners, mostly women. Within this group, those who never married or are divorced/separated are more likely to be eligible for Pension Credit than those who are widowed. Wider individual coverage of the basic State Pension and State Second Pension means that hardly any pensioner couples are likely to be eligible by 2050.

- Eligibility is strongly linked to the higher Pension Credit rates for disability and caring; approaching a half of those eligible for Pension Credit in 2050 get higher rates of Pension Credit because they also receive disability benefits, are carers, or have additional housing costs.

- In projecting Pension Credit entitlement, it is important to capture robustly changes in the projected distribution of pensioner incomes as well as changes in average incomes. Looking only at average changes in income can hide significant changes within the distribution of pensioner incomes.

- The modelling approach used in the Pensim2 model enables us to generate a more plausible future distribution of pensioner incomes than is likely to be possible from a static simulation model, and to assess the effect of varying key assumptions.

- The reduction in Pension Credit entitlement projected in the White Paper is driven in part by a projection that incomes in the bottom half of the pensioner income distribution (which is most relevant to Pension Credit entitlement) are

likely to grow faster than average. This primarily reflects projected increases in state pension entitlements.

- While the estimates are inevitably uncertain, modelling some plausible alternative scenarios for the key assumptions suggests that the results presented in the White Paper are reasonably robust to changes in assumptions.

## Introduction

The Government's proposals in the White Paper 'Security in Retirement' (Cm 6841) set out a new structure for the UK pensions system for the long term. A key part of the proposals is reform to the state pension system, to provide a decent minimum for the poorest pensioners and a foundation upon which people can plan with confidence for their retirement.

This fact-sheet looks in more detail at the estimates published in the White Paper of the effect of the state pension reforms on the projected proportion of pensioners entitled to Pension Credit in the future. Projected entitlement to Pension Credit is an indicator of the extent to which future pensioners may be affected by an interaction with income-related benefits in retirement, and has been used by some commentators to assess the impact of the White Paper proposals on incentives to save. It is, however, only one among many factors that are relevant to future saving incentives. We will be publishing more details of our analysis of the returns to saving in personal accounts later this year.

## Projections in the White Paper

Figure 3.v in the White Paper – reproduced below - gave projections of the proportion of pensioners eligible for Pension Credit over time, under the current system and the reform proposals.

- Under current uprating policies projected forward (and crucially assuming that future Governments would raise the Guarantee Credit in line with earnings[1]), around 70 per cent of pensioner households are projected to be entitled to Pension Credit by 2050 (compared with around 45% now). It has never been the Government's intention that a significant majority of the pensioner population would, in the long term, be eligible for Pension Credit.

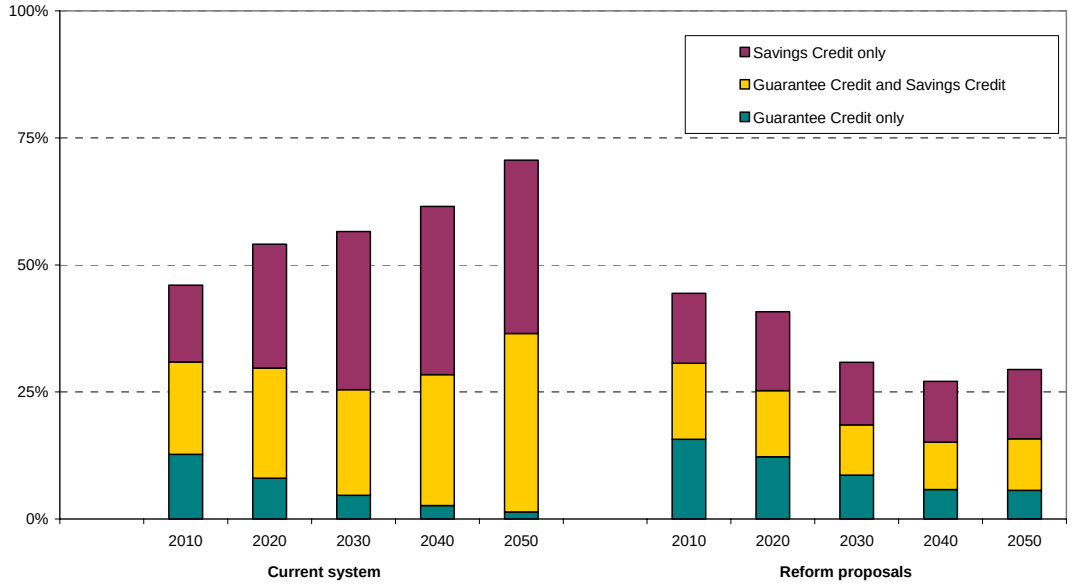
- Under the White Paper reform proposals, the proportion of pensioners eligible for Pension Credit is projected to fall to around a third. Most of these benefit from the Savings Credit. Anyone on the Savings Credit will be in receipt of a top-up to their savings, ensuring that they have a higher income than if they hadn't saved. Those in receipt of Savings Credit who have saved over their working life can expect to see a return of around £2 for each £1 that they save in personal accounts.

- Only around 6% of pensioners are projected to be eligible for the Guarantee Credit and not the Savings Credit, and so are likely to face £1 for £1 deduction rates on income from additional private saving. Typically, many of these people would not have been automatically enrolled in personal accounts for long periods

[1] DWP projections of Pension Credit expenditure and caseloads under current uprating practices have conventionally assumed that the Guarantee Credit would continue to be uprated in line with earnings, although the Government had only committed to that approach until 2007/8. The White Paper announced the Government's intention to uprate the Guarantee Credit by earnings over the long term.

of their working life. And trivial commutation will continue to ensure that those who build up a small pension pot can take it as a lump sum, and might therefore avoid 100 per cent withdrawal rates.

**Proportion of pensioners eligible for Pension Credit over time**




## Why is Pension Credit entitlement projected to fall over time?

The projected fall in entitlement reflects the combined effect of two main factors:

- Projected changes in pensioner incomes that feed into the Pension Credit calculation. These reflect both the impact of the White Paper reforms and other long-term trends such as the maturing of State Second Pension entitlements.

- The reforms proposed to Pension Credit, particularly the changes proposed to the Savings Credit, which ensure that means-tested support continues to be focused on those with small savings.

The projections in the White Paper do not include the effects of introducing personal accounts, which are likely to increase pension saving and future pension incomes (and hence further reduce Pension Credit entitlement).

The rest of this fact-sheet gives more detail of how these estimates were derived and the projections on which they are based.

## How are the estimates in the White Paper derived?

They are based on two DWP micro-simulation models, Pensim2 and the Policy Simulation Model (PSM). Both models enable us to test the effect of different pension policies on a representative sample of pensioner households at different points in time. They differ principally in the way in which the sample for each period is derived:

- Pensim2 builds its sample from a set of base data on individuals and then models the future life events of each person - particularly work episodes (and associated pension histories) but also socio-demographic events such as partnering, childbirth, and onset of disability.

- The PSM takes a sample of current pensioner households (from the Family Resources Survey) and makes assumptions about how their incomes might change over time. It also adjusts the sample to take account of projected changes in the size and age distribution of the pensioner population[2].

- Both models then apply the Pension Credit benefit assessment rules to the sample households. The models provide the flexibility to vary future Pension Credit rates and thresholds – and other elements of the state pensions system - and look at the impact on the estimated proportion of pensioner households who are entitled to Pension Credit.

Pensim2 provides a more robust method than other models or approaches to projecting changes in the distribution of pensioner incomes. This is crucial to making accurate estimates of the proportion entitled to Pension Credit, because it captures projected changes in accruals of pension income at an individual level, enabling it to model for example the distributional effect of the projected widening of state pension coverage over time and the maturing of the State Second Pension scheme. The PSM approach by contrast is inevitably more constrained in capturing distributional changes because it starts from the distribution of income components that is found among current pensioners. On the other hand, the PSM approach does not rely on the complex equations that are needed in Pensim2 to capture individual behaviour and the uprating approach lends itself more easily to ensuring consistency with other aggregate projections e.g of benefit expenditure.

We have used Pensim2 to assess the change in projected entitlement between the current system and the reform proposals. Projections of entitlement under the current system were calibrated within Pensim2 to ensure that they are consistent with estimates that underpin the DWP long-term Pension Credit expenditure projections that are published each Autumn (see section on current estimates below). These calibration factors were then also applied to Pensim2 estimates of entitlement under the reform proposals. This approach enables us to adjust for potential modelling bias (as a result, for example, of excluding some sources of

[2] This is similar to the approach used by the Pensions Policy Institute (see www.pensionspolicyinstitute.org.uk for details of PPI modelling).

income which are not yet fully included in Pensim2, such as income from non-pension savings).

Like any complex model, Pensim2 is only as good as the assumptions that feed into it. It is a relatively new model and is still subject to further development and refinement. To provide a cross-check on the results, projections for the White Paper were also made using the PSM (again after calibrating to entitlement figures under the current system). The estimates presented in the White Paper were then based on a simple average of results from both models.

## Current system projections

Baseline estimates for Pension Credit entitlement under the current pensions system are taken from DWP forecasts, which underpin the long-term expenditure projections for Pension Credit. These baselines use a version of the PSM, enhanced with assumptions about future pensioner income growth under the current system taken from Pensim2. As described in Technical Appendix A to the White Paper, this baseline projects that incomes in the lower half of the pensioner income distribution grow broadly in line with earnings over the period to 2050 (faster than earnings over the period to 2030 and slower than earnings thereafter). This pattern primarily reflects Pensim2's projection of current trends in private pension provision, which project that the rate of growth in private pension income will slow after 2030.

The baseline entitlement estimates are adjusted in line with estimates of entitlement from the published 2004/5 Pension Credit Take-Up estimates[3]. The PSM estimates are based on Family Resources Survey data and so are potentially subject to a number of sources of error, due to reporting errors and bias in the data. The published Take-Up estimates incorporate adjustments which seek to take account of these errors. They provide an estimated range within which the entitled proportion is likely to lie[4] - for simplicity, we use estimates which are the mid-point of the range. Table 1 below shows the baseline projections of Pension Credit entitlement under the current system.

**Table 1. Proportion of pensioner households projected to be eligible for Pension Credit under current system (assuming future Governments raise the Guarantee Credit in line with earnings)**

| | Mid-point estimate |
|---|---|
| 2004/5 | 45% |
| 2010 | 46% |
| 2020 | 54% |
| 2030 | 57% |
| 2040 | 62% |
| 2050 | 71% |

[3] Pension Credit Estimates of Take-Up in 2004/5, DWP (2006).

[4] In practice, adjustments are made to the not-entitled proportion to avoid the theoretical possibility of adjusted entitlement rates exceeding 100%.

## Projections of entitlement under the White Paper proposals

Table 2 shows how the estimates in the White Paper were built up from results from the two models. Both models show a similar trend over time, indicating that entitlement to Pension Credit by 2050 is likely to be well below current levels. The total range of variation between the models in the longer term is around 4 to 5 percentage points.

Table 2 also shows the projected breakdown of the entitled population by the component(s) of Pension Credit to which they are entitled. This is particularly dependent on the distribution of income, so it uses proportions derived from Pensim2 which we judge to provide the most realistic projection of the distribution of future pensioner incomes. This information gives a guide to the "marginal deduction rate" that pensioners may face i.e the proportion of any marginal change in their income which may be offset by a change in Pension Credit. Those entitled to the Guarantee Credit only have incomes below the projected Savings Credit Threshold, and are likely to face 100% marginal deduction rates on additional income, up to the Threshold.

**Table 2. Proportion of pensioner households projected to be eligible for Pension Credit under White Paper proposals**

| | | | | Of which[5] | | |
|---|---|---|---|---|---|---|
| | Pensim2 | PSM | White Paper estimate (mid-point) | GC only | GC and SC | SC only |
| 2010 | 45% | 44% | 44% | 16% | 15% | 14% |
| 2020 | 39% | 42% | 41% | 12% | 13% | 16% |
| 2030 | 29% | 33% | 31% | 9% | 10% | 12% |
| 2040 | 25% | 29% | 27% | 6% | 9% | 12% |
| 2050 | 27% | 32% | 29% | 6% | 10% | 14% |

The projections are quoted here to the nearest percentage point. It is important to recognise that uncertainty into the future means we cannot predict the proportion eligible for Pension Credit to the nearest percentage point. Even for today's pensioner population our best estimate is that between 43% and 48% are eligible. Modelling future eligibility brings in a range of other fundamental uncertainties – for example in relation to demographic change, employment, long-term earnings and prices growth – which add considerably to the overall uncertainty of any projections.

[5] Components may not sum to White Paper estimate total due to rounding.

## Underlying assumptions

The following sections set out more detail of the assumptions which underpin these modelling results. For simplicity (and given that both models produce broadly comparable outcomes), we concentrate here on projections of post-reform Pension Credit entitlement from Pensim2.

## What do we assume about changes in pensioner incomes?

Pensim2's modelling generates a distribution of pensioner household incomes at different points in time. This captures changes in both the level and the distribution of incomes over time. It is important therefore to consider how both these aspects feed into the projections in the White Paper.

The projected average annual growth in pensioner incomes[6] over the period from 2005 to 2050 is illustrated in Table 3[7]. This also shows growth in the main components of income.

**Table 3. Projected average real annual growth rates of pensioner incomes for Pension Credit calculation, 2005 to 2050 (before and after state pension reforms)**

| | All pensioners | |
|---|---|---|
| | Pre-reform | Post reform |
| Net income for PC calculation | 1.5% | 2.2% |
| Of which: | | |
| Basic State Pension | 0.3% | 2.0% |
| State Second Pension | 4.2% | 4.3% |
| Private Pensions | 1.3% | 1.4% |

The post-reform projections include the effect of all the other reforms to the state pension system proposed in the White Paper. In order to avoid distortions caused by changes in the composition of the pensioner population when the State Pension Age increases, the figures are based only on pensioners aged 68 and over.

Overall, pensioner incomes brought to account for Pension Credit are projected to grow after the White Paper reforms at a long-term rate of 2.2% a year, which is slightly above the rate of growth of earnings - the long term assumption in all the White Paper analysis is that earnings increase by 2% a year ahead of prices. The

[6] This is a measure of income brought to account for Pension Credit, so it excludes income from Pension Credit itself.

[7] These are 'raw' income figures from Pensim2. The Pension Credit entitlement results based on these are adjusted using the calibration process described earlier, to control for modelling bias.

growth in income from the Basic State Pension principally reflects the assumption that BSP is uprated with earnings from 2012, although it is also influenced by improvements in BSP coverage over time. Increases in State Second Pension (S2P) reflect the maturing of the scheme as increasing proportions of pensioners retire after spending their full working life under S2P and SERPS. Private pension incomes are projected to grow by around 1.4% a year ahead of prices on average (below the rate of earnings growth). This reflects the assumptions within Pensim2 which project forward the impact of current trends in private pension provision.

It is important to note that the Pension Credit projections in the White Paper do not include the impact of personal accounts, which are likely to increase income from private pensions and may further reduce Pension Credit entitlement.

These projections are in line with our more detailed models for projecting BSP expenditure and in line with Pensions Commission assumptions on private pensions.

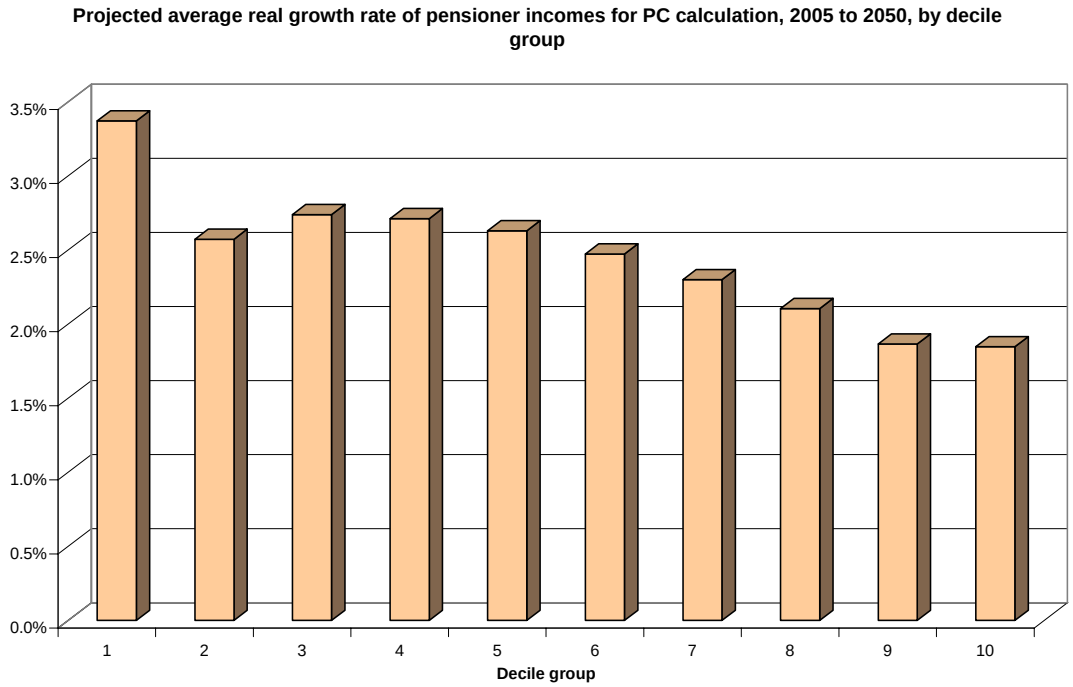
Pensim2 projects slightly faster growth in State Second Pension than the models currently used to project expenditure – on a comparable basis, S2P expenditure is projected to grow at around 3½ per cent a year in real terms, compared with 4.3% in Pensim2[8].

While these average measures are useful in validating the overall modelling, for projections of an income-related benefit like Pension Credit it is critically important how this income growth is distributed. Figure A illustrates this by showing the average growth rates in each decile group of the pensioner income distribution. These assumptions are generated directly by Pensim2's modelling of individual life events and pension accruals; the ability to incorporate distributional effects is one of the key advantages of the Pensim2 modelling approach.

Overall, the projections indicate that incomes will grow faster in the lower half of the pensioner income distribution than in the top half. Although the range of variation is relatively small, the cumulative effect of these projections will tend to have a bigger impact on entitlement to Pension Credit than might be suggested by looking only at the projected average rate of income growth.

[8] See section on 'Other sensitivity tests' later in the paper for an estimate of how much this difference affects the results.

**Figure A. Projected average real growth rates of pensioner incomes taken into account for Pension Credit calculation, 2005 to 2050, post-reform, by decile group**




This pattern of increase primarily reflects the different composition of income at different parts of the distribution. We project state pension income to rise faster than income from private pensions, so lower income groups – who tend to have least private pension income – see a faster rate of growth in income overall.

## The distribution of pensioner incomes in 2050 – including impact of reforms

Estimating the proportion of pensioners entitled to Pension Credit is effectively about projecting the proportion of pensioners who will have incomes below the maximum level for Pension Credit. For most pensioner households – unless they have certain additional needs – this is currently (in 2006/7) about £159pw for a single person and £233pw for a couple.

Figures B and C show the underlying distribution of income in 2050 – separately for single pensioners and pensioner couples - that is generated by our modelling[9]. Incomes are measured here in constant (2006/7) earnings terms. The bars represent the proportion of single and couple pensioners who have incomes in each £5 band.

[9] These are 'raw' income distribution figures from Pensim2. The Pension Credit entitlement results based on these are adjusted using the calibration process described earlier, to control for modelling bias.

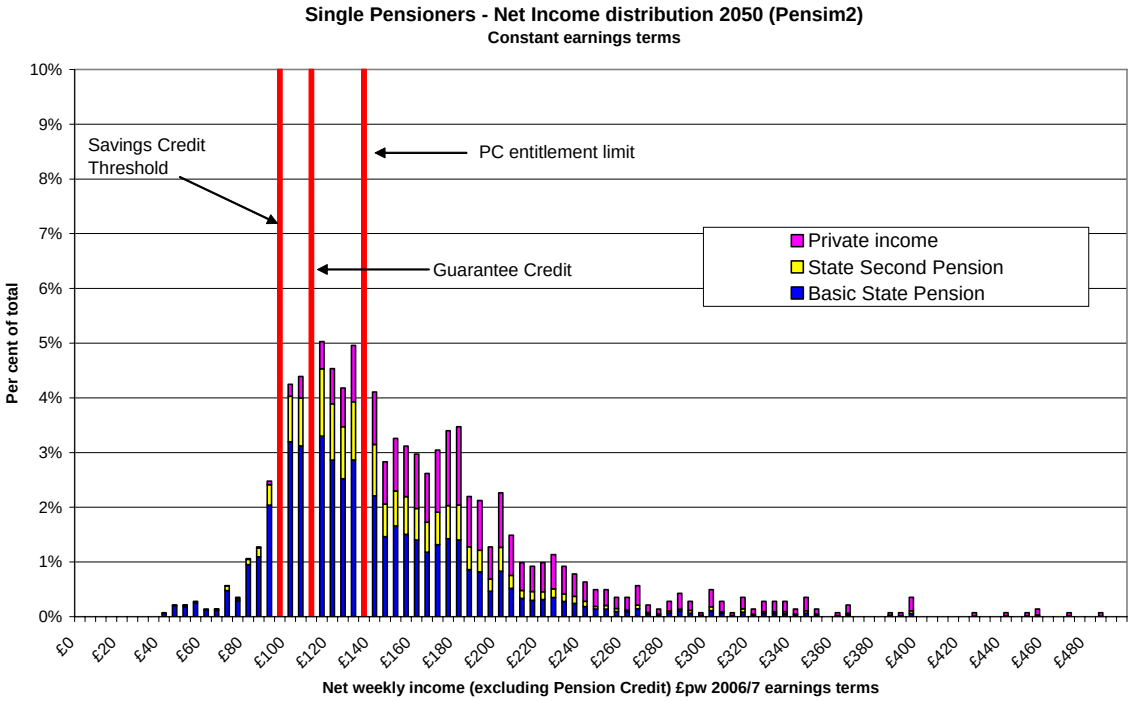
The charts include the main Pension Credit thresholds and the maximum income level for Pension Credit (assuming no additional needs) in 2050. Individuals who appear to the left of the 'PC entitlement limit' line will be entitled to Pension Credit[10]. Those who appear to the left of the Savings Credit Threshold line are those who may be entitled to the Guarantee Credit only.

The charts also show the composition of income at different points in the income distribution – the components of each bar represent the proportion of the gross income of those pensioners that comes from three main sources – basic State Pension, State Second Pension, and private income (including pensions and earnings). This shows that among lower income pensioners, the great majority of their income typically comes from state pensions, so state pension outcomes are likely to have the biggest impact on Pension Credit entitlement. Those with significant incomes from private pensions are typically some way above the income limit for Pension Credit in 2050 under the proposed reforms. Personal accounts are not included in this analysis.

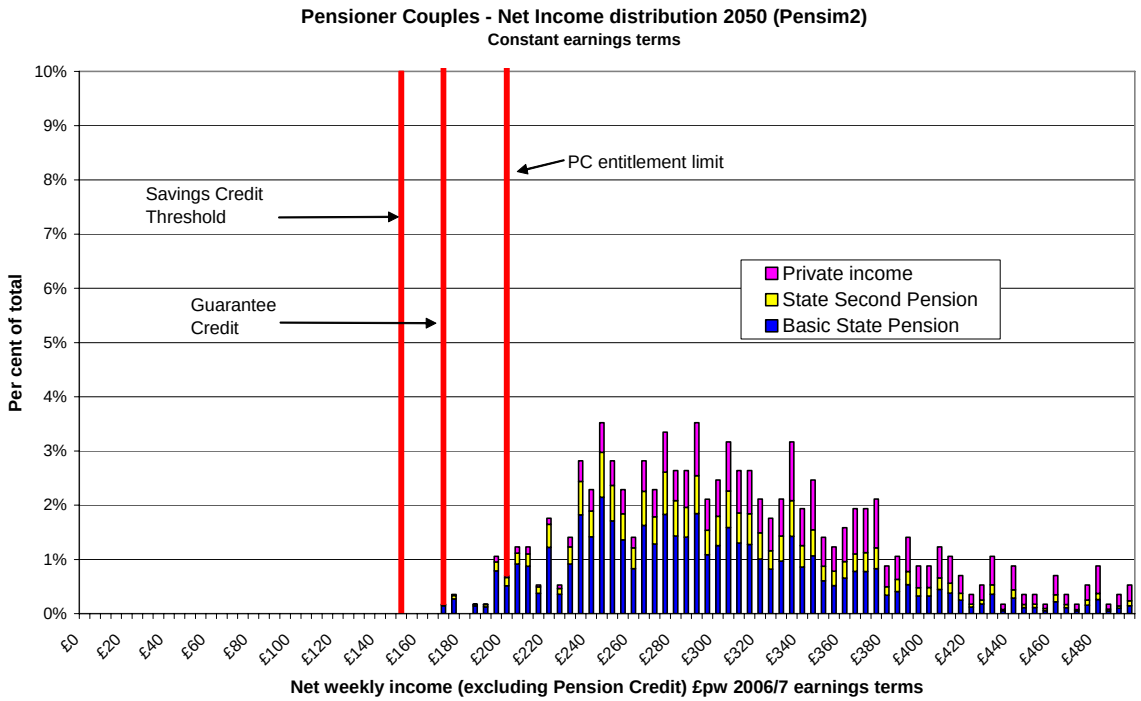
While there is no obviously 'right' distribution of income so far into the future, looking at the distribution in this way can be helpful in shedding light on the general plausibility of the modelling. Both distributions show that most pensioners are projected to have incomes well in excess of the Basic State Pension level by 2050. This reflects the fact that most pensioners by then are projected to have significant accruals of S2P entitlement and/or income from private pensions.

[10] Some of those to the right of the line may also be entitled if they have additional needs.

## Figure B – Projected income distribution of single pensioners in 2050 (post reform)




## Figure C – Projected income distribution of pensioner couples in 2050 (post reform)



## Which pensioners are eligible for Pension Credit in 2050?

The modelling also helps us to understand the characteristics of the pensioners who are likely to be eligible for Pension Credit under the reform proposals, and to identify some of the main factors which make it more or less likely that pensioners will be eligible for Pension Credit. Some broad findings are summarised below.

Single pensioners are much more likely to be eligible than pensioner couples:

- Over 90% of those eligible in 2050 are single pensioners. This is clearly reflected in Figures B and C – we project that most individuals will have near-full entitlement to a BSP which is uprated with earnings – when combined with other income this means few couples are likely to remain entitled to Pension Credit.

Previous marital status also affects eligibility:

- Of all eligible single pensioners, around a third are never-married, a third are divorced or separated, and a third are widowed. This reflects the size of these different groups – if we adjust for this, we find that the probability of receiving Pension Credit in retirement is greater for those who are never married or who are divorced than it is for the widowed (who will normally inherit pension rights from their partners).

Age has a limited effect on eligibility:

- The likelihood of being eligible for Pension Credit increases with age, but overall the differences are relatively small – we do not find any strong evidence that Pension Credit will be primarily targeted on older pensioners by 2050.
- In 2050, around one in four pensioners within 5 years of state pension age are projected to be entitled to Pension Credit (compared with about one in three overall).
- Only around one in fifty pensioners are projected to retire directly onto the Guarantee Credit only. Others who become eligible for the Guarantee Credit only are likely to spend part of their retirement eligible for the Savings Credit as well.

Eligibility is strongly linked to the higher Pension Credit rates for disability and caring:

- Approaching a half of those eligible for Pension Credit in 2050 get higher rates of Pension Credit because they also receive disability benefits, are carers, or have additional housing costs.
- Disabled pensioners are more likely to be eligible for Pension Credit than the non-disabled (around 60% of disabled pensioners are eligible).

## Testing the sensitivity of the White Paper projections to alternative assumptions

Any long term projections are likely to have wide margins of uncertainty, particularly in relation to the assumptions that feed into the modelling. While there is no statistically valid way of establishing the margin of error around the estimates published in the White Paper, we have undertaken some analysis to build our understanding of how sensitive the estimates are to changes in some of the key underlying assumptions. Results from this are reported below.

A wide range of assumptions go into the analysis. It would be impractical to look at the impact of varying all of these. The approach we have taken is therefore to identify those assumptions that are most likely to have an appreciable impact on the results, and about which there is most uncertainty. We have then developed 'scenarios', by combining variations in the key assumptions. By varying key assumptions within plausible ranges of uncertainty we can see how that affects incomes – and Pension Credit entitlement - in our modelling.

The assumptions we think are most significant are:

- Demography – specifically assumptions about future changes in life expectancy.
- Employment rates.
- Productivity/earnings growth.
- Future trends in private pension accruals.

Annex 1 summarises the assumptions for these which are used in Pensim2 for the White Paper modelling. It also shows two alternative sets of assumptions we have tested. Scenario 1 combines a set of assumptions which are likely to lead to lower income-related benefit entitlement. This includes a slower rate of improvement in longevity, higher employment rates and higher levels of private pension accruals. Scenario 2 combines assumptions that are likely to increase income-related benefit entitlement – a faster rate of improvement in longevity and more pessimistic assumptions on private pension accruals.

Projected entitlement to Pension Credit changes little when we make even quite significant changes to the underlying assumptions. Table 5 shows the impact of the alternative assumptions on the Pensim2 estimates of Pension Credit entitlement.

Part of the explanation for this is that in practice average pensioner income growth is quite stable – this is reassuring in that volatile long-term outcomes would be undesirable and probably indicative of weaknesses in the modelling. It is also clear from Figure C that the income distribution of pensioner couples in particular would need to shift substantially to bring significant additional numbers of pensioners into entitlement.

**Table 5. Variations in the proportions entitled to Pension Credit in 2050 under alternative assumptions (Pensim2 results)**

| | White Paper assumptions | Scenario 1 Higher employment, lower life expectancy and higher private pension outcomes | Scenario 2 Higher life expectancy and lower private pension outcomes |
|---|---|---|---|
| Projected average pensioner income growth 2005 to 2050 in real terms | 2.2% | 2.4% | 2.1% |
| Total projected income growth in real terms | 166% | 191% | 154% |
| Proportion of pensioner households entitled to PC[11] | 27% | 25% | 28% |
| Proportion of pensioner households entitled to GC only | 5% | 4% | 6% |

In addition, state pension incomes are likely to be more stable than private pension incomes. The extensions of coverage to both Basic State Pension and State Second Pension mean that state pensions provide an increasingly stable underpin which is relatively unaffected by variations in economic assumptions. Projections of private pension income are inevitably more uncertain. But since private pensions represent a relatively minor source of income for most of those within the scope of Pension Credit entitlement after the reforms (see Figures B and C), variability in private pension outcomes tends to have only a small impact on entitlement.

This is illustrated for single pensioners in Table 6 below. Among single pensioners with incomes below the PC limit, around 90% of their income comes from the basic State Pension and State Second Pension.

[11] Projections are from Pensim2 only, so differ from those published in the White Paper.

**Table 6. Components of income for single pensioners (Pensim2 results)**

| Per cent of total modelled gross income from various sources | Single pensioners (2050, post reform) | |
|---|---|---|
| | Incomes up to PC entitlement limit | Incomes above PC entitlement limit |
| Basic State Pension | 68% | 37% |
| State Second Pension | 21% | 17% |
| Private Pensions[12] | 11% | 42% |
| Earnings | Neg | 4% |

## Other sensitivity tests

While we think the scenario approach provides the most realistic way of assessing sensitivity to changes in assumptions, we have also looked at the impact of more arbitrary changes in the projections:

1. Halving all private pension income.

While this is likely to represent an extreme assumption, it is helpful in understanding how far the projections need to change to have an appreciable impact on the results. We find that halving all private pension income in 2050 would increase the proportion of pensioners eligible for Pension Credit by only around 10 percentage points compared with the projections published in the White Paper.

2. Reducing State Second Pension income by 20%.

As noted earlier, Pensim2 projections of income from S2P are higher than those which underpin long-term expenditure projections. We find that reducing all income from S2P in the model by 20%[13] in 2050 would increase the proportion of pensioners eligible for Pension Credit by only around 2 to 3 percentage points compared with the projections published in the White Paper.

Both results suggest that major changes in underlying projections would be needed to produce appreciable changes in the projection of PC entitlement by 2050.

[12] Includes income from contracting out.

[13] This would bring the growth rate of S2P income in Pensim2 broadly in line with the long-term expenditure projections (after taking account of the fact that Pensim2 tends to understate S2P income in the early years).

## Conclusion

This fact-sheet has provided more details of the modelling and assumptions that underpin the projections of Pension Credit entitlement in the White Paper.

We would welcome comments on the analysis.

We plan to continue developing our analysis in this area, including more work on understanding the sensitivity of the results, the characteristics of eligible pensioners, and also incorporating the impact of personal accounts in our modelling. We will publish more details on this later in the year.

## Annex 1. Key modelling assumptions and alternative scenarios

| | White Paper assumptions | Alternative scenario 1<br>Lower PC entitlement | Alternative scenario 2<br>Higher PC entitlement |
|---|---|---|---|
| **Life expectancy** | GAD 2004-based principal projections, assuming 1% pa long-term improvement in mortality rates | GAD 2004-based high mortality projections, assuming no improvement in mortality rates after 2029 | GAD 2004-based low mortality projections, assuming 2% pa long-term improvement in mortality rates |
| **Employment** | Cohort-based projections of current employment levels (implies small increase in 16-64 employment rate to 74% by 2040) | Employment rates by age/gender projected to maintain ratio of workers to non-workers (consistent with 80% employment ratio aspiration) | Cohort-based projections of current employment levels (implies small increase in 16-64 employment rate to 74% by 2040) |
| **Earnings/productivity** | 2% pa real growth | 1.75% pa real growth | 2% pa real growth |
| **Private pensions** | | | |
| **- DB/DC** | DB/DC shift continues so that ratio applying to new scheme entrants levels off at 30% DB and 70% DC | DB/DC shift stops at current level | DB/DC shift continues so that ratio applying to new scheme entrants levels off at 30% DB and 70% DC |
| **- Membership rates** | Held at current levels | 25% higher than current levels (private sector schemes only) | 25% lower than current levels (private sector schemes only) |
| **- Contribution rates** | Held at current levels (but with some increase in DC contribution rates as DB-DC shift continues) | Held at current levels | Held at current levels (but with some increase in DC contribution rates as DB-DC shift continues) |
| **- Contracting out** | Two-thirds decline in private sector contracting out from current level, in line with GAD principal projection | 50% decline in private sector contracting out from current level, in line with GAD variant projection | 80% decline in private sector contracting out from current level, in line with GAD variant projection |
| **- Rate of return on funds** | 4% pa real | 4.5% pa real | 3.5% pa real |
| **- Annuity rates** | Current levels, adjusted for projected mortality improvements | Current levels, adjusted for projected mortality improvements (so higher annuity rates than White Paper assumptions) | Current levels, adjusted for projected mortality improvements (so lower annuity rates than White Paper assumptions) |