Pensions Policy Institute

PPI

## Executive Summary

# What level of pension contribution is needed to obtain an adequate retirement income?

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# Executive Summary

Under automatic enrolment, employers are required to automatically enrol their employees into a qualifying pension scheme. The minimum total contribution rate is 8% of a band of earnings from £5,668 and £41,450 per annum, of which a minimum 3% must come from the employer. With over 80% of Defined Benefit (DB) schemes now closed to new members or future accruals the majority of employers are expected to select a Defined Contribution (DC) pension as their qualifying scheme.

This report analyses what ranges of retirement incomes from a DC pension different individuals might achieve by making only the minimum required level of contributions. The report also analyses the contribution rate necessary for different individuals to have a "good chance" of achieving an adequate retirement income. This report employs outputs from the PPI Individual Model adapted to use stochastic modelling techniques, based on a model developed by the Department of Mathematics at King's College London. Each individual modelled is run 100,000 times with different economic scenarios. This illustrates better the variability around investment returns and economic variables year on year.

Adequacy can be defined as to what extent individuals have a retirement income that fulfils their basic needs or to what extent retirement income allows individuals to replicate the standards of living they had while in working life. Replacement rates are a good way to assess whether pensioners may be able to replicate their working life living standards. This report uses replacement rates similar to those set out by the Pension Commission to assess the adequacy of retirement income for different individuals under different scenarios.

**Retirement income from private and state pensions is uncertain.** The target replacement income for a median earner is 67% of their pre-retirement earnings. In 49% of the cases generated in the modelling a median earner could reach their target replacement income with private and state pensions income, if starting to save at age 22, retiring at State Pension Age (SPA), following a traditional lifestyle investment approach and contributing at 8% of band earnings (Chart A).

**Saving at the minimum contribution rate of 8% of band earnings may not be enough for some individuals.** In more than half of the scenarios modelled income is below the target replacement income and in 25% of the scenarios income from private and state pensions was less than 75% of the target replacement income.

Lower earners have a higher probability of achieving their target replacement income than median or higher earners. (Chart B).

**Chart A**[1]

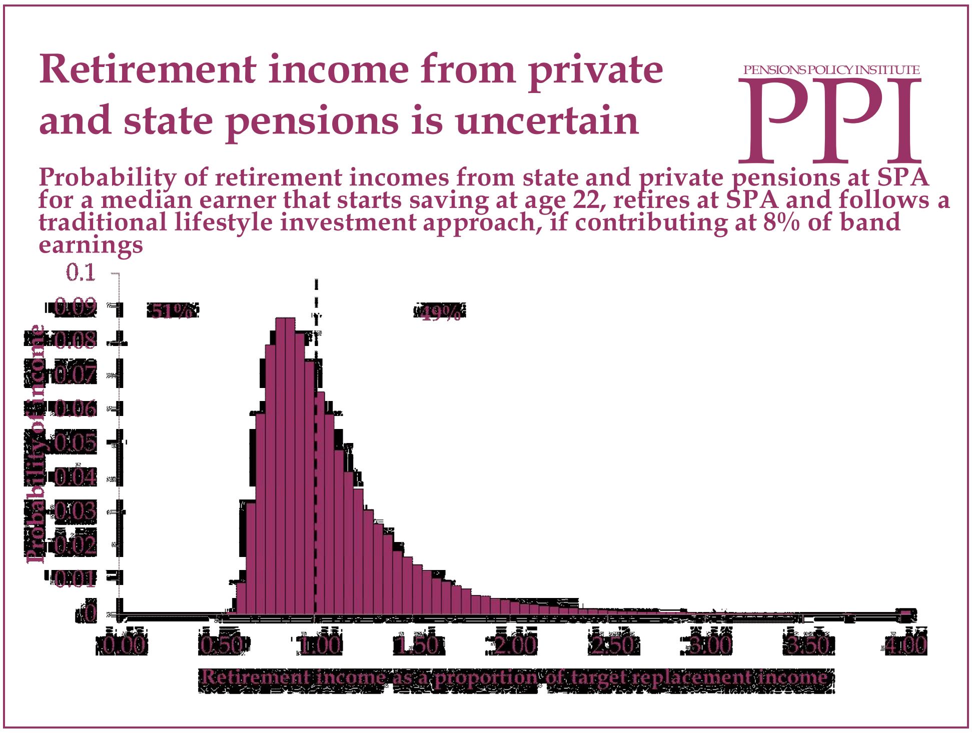
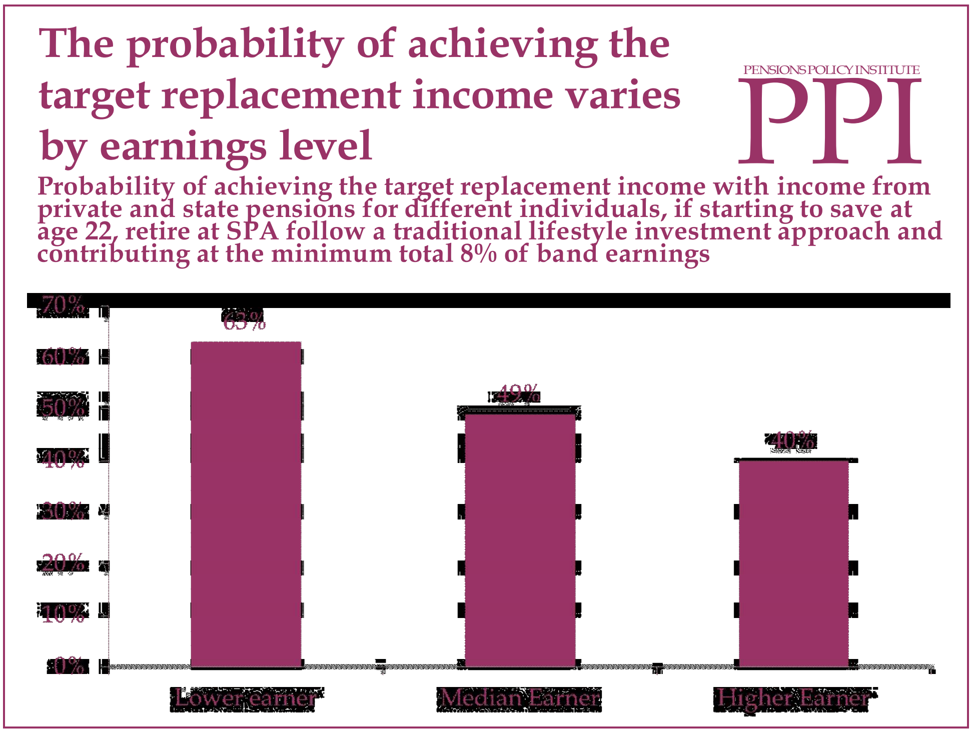



**Chart B**[2]

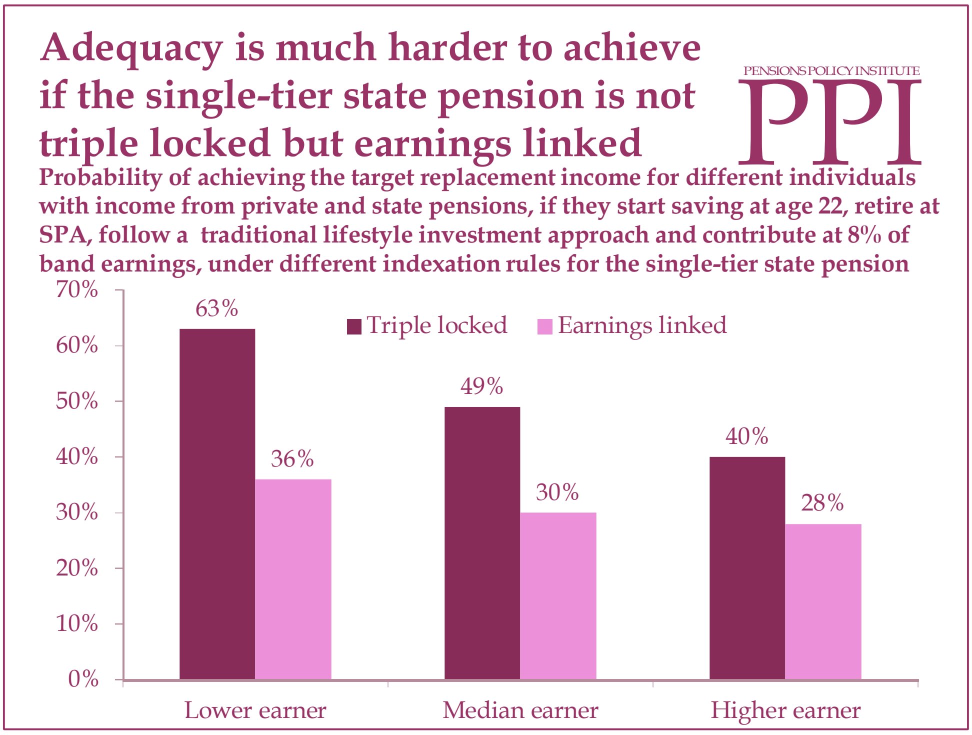



[1] PPI and King's College London modelling analysis
[2] PPI and King's College London modelling analysis

Under the baseline scenario of starting to save at age 22, retiring at SPA and following a traditional lifestyle investment approach, a lower earner has a 63% probability of achieving their target replacement income, compared to 49% for a median earner and 40% for a higher earner. Lower earners have a higher probability of achieving their target replacement rate because the single-tier state pension introduced from 2016 will represent a higher proportion of lower earners' pre-retirement earnings than for median or higher earners.

**However, adequacy will be sensitive to the indexation mechanism used for the single-tier state pension.** Currently, the Basic State Pension (BSP) is uprated by the triple lock of the higher of changes in average earnings, changes in the Consumer Prices Index (CPI) or 2.5%. Current legislation stipulates that the BSP must be uprated at least in line with changes in average earnings. Once the single-tier pension is introduced in 2016, it will be up to the government of the day to decide whether anything more than average earnings is needed. Adequacy is much harder to achieve if the single-tier state pension is increased in line with average earnings rather than triple locked (Chart C).

**Chart C**[3]




The triple lock indexation mechanism for the single-tier state pension is more generous than just average earnings because in years of low inflation or earnings growth, the single-tier pension would increase by at least 2.5%. The probability of different individuals achieving the target replacement income if

[3] PPI and King's College London modelling analysis

contributing at the legal minimum of 8% of band earnings reduces by almost a half if the single-tier state pension is indexed by average earnings.

For a lower earner, the probability of achieving their target replacement income decreases from around 63%, if the single-tier pension is uprated by the triple lock, to around 36% if the single-tier pension is uprated by average earnings. For a median earner, the probability of reaching their target replacement income decreases from around 49% to 30% and for a higher earner the probability decreases from around 40% to around 28%.

**The contribution rate needed to achieve an adequate retirement income will be sensitive to investment approaches and charges**. In automatic enrolment, many individuals will stay in default funds, with a pension scheme chosen by their employer. This default fund could be based on one of a number different investment approaches. Different investment approaches would entail different levels of annual management charges (AMC) applied to an individual's fund.

There are different investment approaches but this report considers retirement outcomes under three approaches. Under a traditional lifestyle investment approach, the funds in which pension contributions are invested are changed automatically depending on the length of time until the expected retirement date. Members' funds are invested in equities since early years and switched to gilts and cash as the individual approaches retirement. A first alternative approach aims to achieve lower volatility in early years at the expense of potential returns. A second alternative approach aims to reduce volatility but not at the expense of lower returns. This is done by reducing equity volatility within a traditional lifestyle approach.

The investment approach and the AMC paid, together with the indexation mechanism used for the single-tier state pension, could affect the contribution rate needed to achieve an adequate retirement income (Table D).

**Table D**[4]

| | | Single-tier triple locked | | Single-tier earnings linked | |
|---|---|---|---|---|---|
| **Probability of achieving the target replacement income** | **Investment approach** | **AMC: 0.5%** | **AMC: 1%** | **AMC: 0.5%** | **AMC: 1%** |
| **Two-thirds** | Traditional lifestyle | 11% | 12% | 14% | 16% |
| | First alternative | 12% | 14% | 16% | 17% |
| | Second alternative | 10% | 12% | 14% | 15% |
| **Three-quarters** | Traditional lifestyle | 13% | 15% | 17% | 18% |
| | First alternative | 14% | 15% | 17% | 19% |
| | Second alternative | 12% | 14% | 15% | 17% |

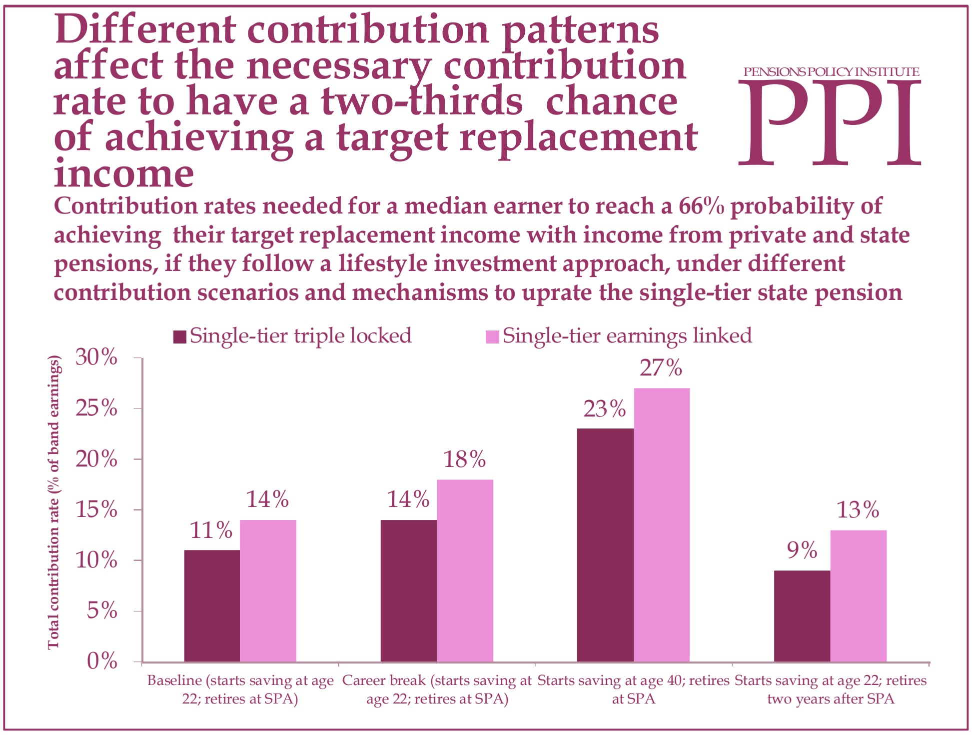
The contributions required do vary between the different stylised investment strategies modelled. However, the contributions required do not change significantly with the alternatives, generally either one percentage point higher or lower than under a traditional lifestyle approach. The contributions required are more sensitive to both charges and the indexation mechanism for the single-tier state pension.

The range of outcomes taking into account changes in all these factors is large. For example, the total contribution required to reach a two-thirds chance of achieving the target replacement income ranges from 10% in a low charging scheme with a triple locked state pension to 17% in a higher charging scheme and an earnings linked state pension.

**Changes in contribution patterns affect the contribution rate needed for an adequate retirement income.** Whether people take career breaks, start to save later in life or decide to retire some years after their SPA affects the contribution rates needed to have a good chance of reaching an adequate retirement income. But this also depends on the indexation mechanism used to uprate the single-tier state pension. (Chart E)

[4] PPI and King's College London modelling analysis

**Chart E**[5]




If the single-tier state pension is uprated by the triple lock, a median earner that takes a career break needs a total contribution rate of 14% to have a two-thirds chance of reaching the target replacement income, compared to 11% under the baseline of starting to save at age 22 and retiring at SPA. The contribution rate needed increases to 23% if the median earner starts to save at age 40. If the single-tier state pension is uprated by changes in average earnings a median earner needs a total contribution rate of 18% if taking career breaks and 27% if starting to save at age 40.

By contrast, a contribution rate of 9% of band earnings will be necessary to have a three-quarters chance of reaching the target replacement income if retiring two years after SPA and the single-tier state pension is uprated by the triple lock. This increases to 13% if the single-tier state pension is uprated by changes in average earnings.

**Many individuals will need to contribute more than the legal minimum.** The Government could consider a number of strategies to increase pension saving. The Government could encourage or enable the provision of information and advice to individuals, or they could provide better incentives for pension saving, so that individuals choose to save more.

However, automatic enrolment was introduced because the system of incentives to save and advice has not worked well in the past. There is also evidence that the system of incentives to save is poorly understood.

[5] PPI and King's College London modelling analysis

The Government could consider a number of inertia mechanisms to increase contribution levels such as auto-escalation where a member contribution rate increases in line with earnings increases. However, some form of compulsion by making saving into a pension mandatory might need to be considered if individuals opted-out in large numbers as a result of higher minimum contributions. The Government could also promote initiatives that encourage people to use other types of wealth to increase their retirement savings and promote initiatives to make individuals work longer.

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Editing decisions remain with the authors who take responsibility for any remaining errors or omissions.

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