Which?

POLICY REPORT MAY 2019

Top up the Pots

Achieving adequate retirement incomes with automatic enrolment

Acknowledgements

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Executive summary

The policy of automatic enrolment was fully implemented in 6 April 2019, and minimum contribution rates are now 8% of an individual's salary. Since its phased launch began in 2012, the policy has been hugely successful at drawing in new savers, with 9.8 million employees being enrolled into an automatic enrolment pension scheme by June 2018 (The Pensions Regulator, 2018). However, there is concern that the 8% contribution rate will be insufficient to achieve adequate retirement incomes, and that many people will still not save enough for retirement. The Department for Work and Pensions (DWP) estimates that 38% of people are not saving enough despite the introduction of automatic enrolment (DWP, 2017a).

Generally, it is assumed that retirement income will come from the three 'pillars' of state pension, workplace pensions, and private pensions and saving. Designing a pension system that balances the contribution from these sources, but which relies on defined contribution workplace pensions is challenging, since the returns depend on the performance of the investments and these are uncertain. This means a compromise must be found between saving enough to have a good chance of achieving an adequate retirement income, but not over-saving, as this could cause needless financial hardship and increase the likelihood of people opting out of their workplace pension.

This report investigates the likelihood that a *hypothetical median earner* who saves at the minimum auto-enrolment contribution rates for 46 years achieves an adequate retirement income. Using a plausible set of assumptions and stochastic modelling from the Pension Policy Institute's Individual Model, we find this **median earner currently only has an approximate one in ten (11%) chance of achieving the Pension Commission's target for an adequate retirement income**, (which for a median earner is defined as two-thirds of their pre-retirement income).[1]

Proposals have already been made to increase savings levels – DWP has stated an intention to remove the lower earnings threshold for contributions (currently £6,136) by the mid-2020s. This would mean that contributions are paid from the first pound earned and it would increase expected pension pot sizes. However, it is still unlikely to result in adequate retirement incomes – **with no lower earnings threshold our hypothetical median earner achieves adequacy in 21% of economic scenarios**.

Further, removing the state pension triple lock, as others have called for, would greatly impact on the incomes of future pensioners. **Replacing the triple lock with an earnings uplift from 2022, the median earner in our modelling achieves adequacy in only 6% of scenarios,** and this has a relatively bigger impact for lower earners.

Given all this, there is a need to consider new options for the further development of the UK's automatic enrolment system. A public survey conducted for this report shows that **views vary greatly about how much retirement income a defined contribution pension at minimum contribution rates can be reasonably expected to achieve. However, a large proportion (43%) of individuals believe that these minimum rates should be sufficient to achieve at least an adequate retirement income.**

1 The model estimates the amount of money that would be saved into a pension scheme and how much this would grow by retirement. These factors will vary according to macroeconomic conditions and so an Economic Scenario Generator is used to produce a distribution of total pension funds that the individual might end up with depending on the economic circumstances that exist during their working life. More favourable economic scenarios with higher economic growth will result in larger pension funds because earnings will be higher, so pension contributions will be greater, and investment returns will be better.

A number of options exist for increasing minimum contribution rates and this report considers four alternatives:

- **An increase in the minimum rate of contributions** from 8% to 12% for all employees is simple and would greatly increase the likelihood of a median earner achieving an adequate retirement income. In our modelling a median earner achieves adequacy in 37% of scenarios. However, it could lead to over-saving for those on lower incomes and affordability concerns might cause more opt-outs.
- **Auto-escalation by salary**, like 'Save More Tomorrow™' schemes, involves increasing the contribution rate as the individual receives pay rises. This means take-home pay should not fall in nominal terms, but the savings rate increases. For someone in their early career it has almost the same expected outcomes as a flat rate of 12%, but it has the advantage that individuals could 'opt down' and continue to save at a lower rate, which might reduce the risk of increased opt-outs. A concern is that those changing jobs are likely to be defaulted on to the lowest rate, so anyone who changes jobs frequently would be at greater risk of not saving sufficiently.
- **Auto-escalation by age** means that contribution rates are higher for older workers. As a result, there is a smaller burden in early career when, on average, affordability concerns are greater and there is less engagement with retirement planning. The modelling in this report shows that, for a median earner, rates of 8% from age 22, 12% from age 35 and 15% from age 50 can achieve a similar expected outcome as increasing a flat rate to 12%. However, a disadvantage is that a greater proportion of savings comes from later in the career, which increases the risk, while savings made later have less time to benefit from investment returns.
- **A new upper band of earnings with a higher marginal contribution rate** would mean that contributions vary by the level of earnings in a manner similar to income tax. These prevent individuals on lower incomes from over-saving, but it is a more complicated system than the other options and our modelling shows that marginal rates may need to be high to achieve levels of saving comparable to the other options.

Of these options, the public have a greater preference for a policy that increases contribution rates by salary rather than age. Of individuals already contributing to a defined contribution pension, 74% supported the proposition that the proportion of a person's salary saved into a workplace pension should increase as they earn more, whereas 48% supported contribution rates that increase as the employee gets older. 68% of all respondents supported the idea of auto-escalation by pay.

Which? believes that future changes to auto-enrolment contribution rates should be guided by the following three principles:

1. Automatic enrolment default contribution rates should provide median earners with a reasonable expectation of having an adequate retirement income.
2. Minimum contribution rates should avoid over-saving by those on lower incomes.
3. The system should build in the opportunity for opt-downs so that people can easily tailor contributions to individual circumstances and to reduce opt-outs.

On the basis of these principles, we recommend that:

- **DWP should increase the auto-enrolment default contribution rate for those on middle incomes.**

Which? recommends that this should be achieved by introducing a higher contribution rate for higher earnings. The analysis in this report has shown that to make a meaningful impact on the likelihood of achieving pension adequacy this higher rate needs to apply on all earned income above the lower threshold, and so not be a marginal rate. Further modelling and consultative work

should be undertaken by the Department for Work and Pensions to determine the level of this rate and the threshold at which it begins, but this report indicates that the required rate is likely to be at least 12%.

A risk with increasing contribution rates is that it has the potential to lead to over-saving for some individuals and the modelling presented in this report shows that this could be a particular risk for those on lower incomes, especially if an increase in the contribution rate is accompanied by the removal of the lower threshold for pension contributions. Given this, **we recommend that a lower minimum rate remains in place and that this is the default rate for lower earners**. Having two rates will allow higher rate contributors to opt down to the lower contribution rate if this better suits their needs and preferences.

One challenge with introducing a new higher contribution rate that applies to all income is that a pay rise may make someone eligible to save at the higher rate and cause a fall in take-home pay. To overcome this **we recommend that auto-escalation processes should be encouraged to smooth transition from the lower to upper rate.**

A further challenge is that employer contribution rates must be set such that they avoid distorting employment decisions. Higher employer contribution rates for higher salaries could act as a drag on pay and so the difference in employer contributions between the higher and lower contribution rates should be minimised.

Finally, a consequence of a reliance on workplace pensions is that individuals who work less during their career because they take on caring responsibilities will have lower retirement incomes. This could be to look after a sick or elderly relative or, more commonly, to care for children. Since caring responsibilities tend to be unequally shared within households then this mostly disadvantages women. National Insurance credits ensure that this need not lead to a loss in state pension entitlements, but no such mitigating factor exists for workplace pensions. To address this, and hence to boost female retirement incomes, we recommend:

- **The government should make a lump-sum 'New Parent' pension contribution to a nominated defined contribution pension scheme for a mother on the birth of her first child.**

A female median-earner working part-time in her 20s or early 30s might forego between £500 to £1,000 of pension contributions per annum, while our modelling shows that working part-time for 10 years could reduce a median-earning woman's final pension pot by about £15,000. We propose that the government's lump-sum pension contribution should be £2,000 which, with investment growth and compounded returns, would offset some of the loss in pension savings that would occur from working part-time hours when children are pre-school. The household should be able to choose whether the contribution is instead made to a pension scheme of another parent or guardian. In the event that no pension scheme is nominated then the contribution should be made to a pension fund provided by NEST.

Introduction

Recent reforms of workplace pensions mean that the retirement expectations for a young person entering the labour market today are very different from those for someone a generation earlier. The successful implementation of automatic enrolment means that many more people will have a workplace pension. By June 2018, 9.8 million employees had been enrolled into an automatic enrolment pension scheme (The Pensions Regulator, 2018), and since April 2019 contribution rates have been 8% of an employee's salary. Against this, the withdrawal of defined benefit schemes by private sector employers means that fewer workers will retire with generous entitlements. There were an estimated 5.2 million active members of private sector defined benefit schemes in 1995 (Pensions Commission, 2004), but this had fallen to just 1.3 million by 2016 and a majority of these were in schemes closed to new members (ONS, 2017). Taken together, these changes mean that while many people will be better off in retirement, it is by no means clear that the current system will lead to adequate retirement incomes for the majority.

Analysis of future pension expectations suggests that large proportions of the workforce are not saving enough to maintain working-life living standards in their retirement. The Department for Work and Pensions has produced a number of recent reports to estimate the impact on pension savings of the introduction of automatic enrolment and changes to the state pension (DWP, 2013; DWP, 2014; and DWP, 2017a and 2017b). A consistent finding of these reports is that the reforms will substantially improve pension provision, but that significant numbers of people continue to be saving too little to achieve the target replacement rates set by the Pension Commission to represent adequate retirement income (Pensions Commission, 2004). In its most recent analysis, the DWP estimate that 38% of people were not saving enough for retirement and that this proportion increases for those earning more than £25,000 per annum. These findings are supported by other studies with alternative methodologies. The PLSA (2016) estimate that fewer than half of individuals have a probability of 60% or above of achieving target replacement rates and the Resolution Foundation (2017) predicts that about three-quarters of future pensioners are at risk of failing to achieve these rates.

Although the evidence suggests many people are not on course to achieve adequate retirement incomes, it need not follow that further reform of automatic enrolment is needed as individuals could be encouraged to make their own arrangements to save more. The Pensions Commission (2004) effectively argued that a three-pillared system is needed to provide income adequacy for future pensioners. First, there needs to be a state pension that ensures a minimum income. Second, individuals should be strongly encouraged to top this up with a workplace pension. Third, those on higher incomes are expected to have personal pension provision or savings if they wanted to achieve higher retirement incomes.

The relevant policy questions are what proportion of retirement income a workplace pension should be expected to provide and whether the current automatic enrolment rates are sufficient to achieve this. It is not reasonable to expect the state pension and workplace pensions accrued through automatic enrolment to lead to a retirement income that satisfies all individuals at all times. Defined contribution pensions mean that investment risk is borne by the saver and outcomes will depend on economic performance, so that savings rates that always achieve good retirement

incomes will lead to over-saving in many cases. Further, people have different preferences about how much income they want in retirement and those who want to save more are rightly expected to save privately. However, it seems reasonable to expect that an individual who earns an average salary and saves at the automatic enrolment minimum contribution rates for most of their working life will generally save enough. The modelling presented in this report suggests that they will not.

Using a reasonable set of assumptions, we show that a median earner working for 46 years is unlikely to achieve adequate retirement incomes at the 8% default contribution rate. Assuming average economic conditions, their defined contribution pension fund is expected to be about £75,000 smaller than it needs to be to achieve adequacy. The shortfall worsens for those on higher incomes and for those who take time out from work, perhaps to raise a family.

Evidence suggests that people have little idea about how much they need to save for retirement or how much income a pension will give (ILCUK, 2015; FCA, 2018b). In a representative survey we found that beliefs varied greatly about the income an archetypal individual could reasonably expect from an automatic enrolment pension. This is worrying since levels of engagement with retirement planning are low, and those who believe their workplace pension will be sufficient are at risk of having inadequate income in retirement. It suggests that default automatic enrolment contribution rates should be set sufficiently high that an average earner who is automatically enrolled into a workplace pension can reasonably expect to be saving enough.

There are a number of ways in which automatic enrolment contribution rates could be increased and this report considers four options. First, the minimum contribution rate could be increased from the level of 8% (from April 2019) to a higher flat rate for all savers. Second, auto-escalation by pay, in which contributions increase as individuals receive pay rises. Third, contributions could vary by age so that older employees contribute at higher rates. Fourth, variable marginal rates could be applied to different levels of earnings, in a manner similar to income tax.

This report explores these options for increasing automatic enrolment contribution rates using the Pension Policy Institute's (PPI) Individual Model that projects defined contribution pension savings under different policy scenarios. As a first step, however, we estimate the level of pension adequacy that the current automatic enrolment rates will achieve for representative individuals.

Retirement incomes with current contribution rates

Automatic enrolment has been introduced in stages since 2012, with the largest employers required to enrol eligible employees on a pension scheme first. Initially, schemes had minimum contribution rates of 3% of band earnings, increasing to 8% in April 2019. Of this, employers contribute 3% of the salary and workers contribute 5%, but since pension contributions are exempt from income tax, then for basic-rate taxpayers every £1 paid into a workplace pension equates to 80p from their take-home pay. The threshold salary level above which workers must be automatically enrolled is £10,000, with contributions paid on all salary between £6,136 and £50,000 (in the tax year 2019/20).

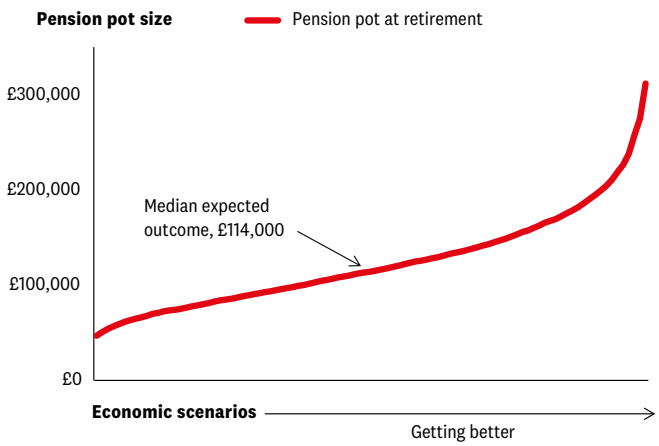
As a benchmark we present first the modelling results produced by the PPI from its Individual Model of the pension outcomes for a 'typical' worker. A fuller description of the model can be found in PPI (2019),[2] but, briefly, we assume this is a man who starts work aged 22 in 2018 and works continually through to his retirement at the expected state pension age of 68. He is assumed to earn a median wage throughout his lifetime and he saves for his pension at the automatic enrolment minimum contribution rates.

Defined contribution pension schemes place the investment risk on the individual saver, so it is necessary to recognise that outcomes for savers are uncertain. Therefore, the PPI's Economic Scenario Generator is used to produce a distribution of total pension funds that the individual might end up with depending on the economic circumstances that exist during his working life. More favourable economic scenarios will result in larger pension funds due to two main reasons. First, earnings will be higher in better economic scenarios, and hence pension contributions will be greater. Second, investment returns will be better when economic growth is higher.

Figure 1 presents the distribution of possible pension pot sizes for this hypothetical average earner. All values are given in today's prices to make understanding of the results easier. It illustrates the uncertainty associated with defined contribution pension schemes. In the best 10% of scenarios this individual will retire with a pension pot of at least £194,000, but in the worst 10% of scenarios this is less than £68,000. The median outcome (ie pension pot at retirement) is £114,000.

Figure 1: Expected pension pot for a median earner under current system

Source: PPI Individual Model



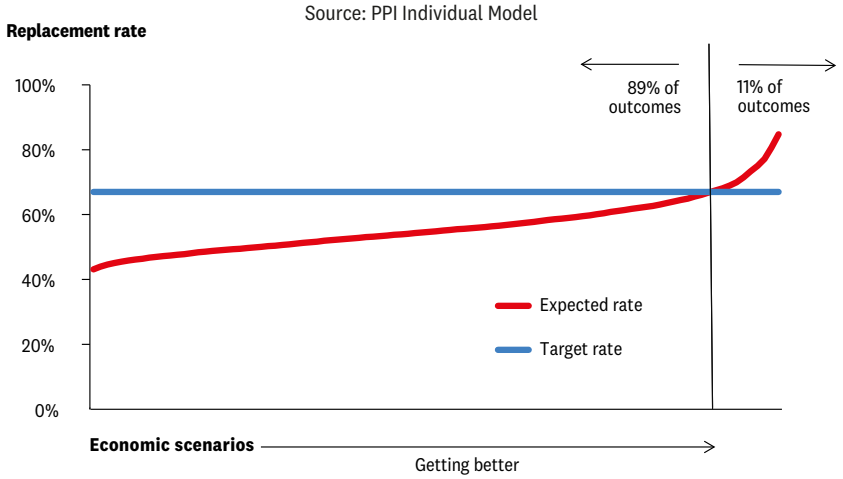
2 *"Increasing savings in automatic enrolment analysis commissioned by Which?"* at https://www.pensionspolicyinstitute.org.uk/research/research-reports/

However, estimating pension pot sizes is not sufficient to determine whether or not an individual is likely to save enough for their retirement. This requires that the pot be converted into a retirement income and the notion of 'enough', or 'adequate', be defined. First, to convert the pot into retirement income, we assume that income is drawn down at a rate of 3.5% in the first year, increasing in line with the Consumer Price Index (CPI) thereafter. This is in line with a sustainable drawdown rate identified elsewhere (PPI, 2018).

Next, to determine 'adequacy', we estimate the total annual pension income from this workplace pension and the state pension and compare this income to the Pension Commission's (2004) definition of target replacement rates (TRRs) for pension adequacy. Replacement rates indicate what proportion of pre-retirement annual income is available in retirement and for a median earner the target (TRR) is 67%.[3] TRRs cannot be interpreted as an exact amount that would achieve pension adequacy for individuals since this will vary according to individual preferences and perhaps change over retirement. However, they provide a useful guide to make judgements about cohorts of individuals and to estimate the impact of policy changes (MacDonald and Moore, 2011). Figure 2 shows that pension adequacy is expected to be achieved by our hypothetical average earner in just 11% of scenarios. When combined with the state pension, a median-sized pot for this worker will give an estimated income of £13,450, or about £260 per week. This corresponds to a replacement of just over half of pre-retirement income for a median earner, which is considerably below the Pension Commission's definition of an adequate income.

Figure 2: Expected replacement rates for a median earner under current system

Source: PPI Individual Model



At lower incomes a greater proportion of pre-retirement income is needed, so the Pension Commission's TRR for a lower earner is 70%, but for an upper earner this falls to 60% and 50% for a very high earner. However, modelling pension outcomes for other hypothetical individuals shows that lower earners are more likely to achieve the TRRs, since the state pension goes further towards replacing their pre-retirement income. Under the current system of auto-enrolment a man earning at the 25th percentile for his entire career is expected to achieve the TRR in 64% of

3 An alternative measure of adequacy is the Joseph Rowntree Foundation (JRF) estimate of a Minimum Income Standard (MIS), which is £9,998 for a single pensioner and £14,299 for a pensioner couple (Padley and Hirsch, 2017; these estimates do not include rental costs). Since only a relatively modest top up would be needed to the full new state pension to reach the MIS then workers with a full National Insurance contribution history and some workplace pension always achieve it. However, this *minimum* standard is not believed to be an appropriate target for *adequacy*. The PLSA are currently developing target retirement incomes for more comfortable lifestyles and these are expected to be published in 2019. In their absence, we believe the Pension Commission's target replacement rates to be the best available measure.

scenarios, but for a man at the 75th percentile this is just 4% (see table 1).

Since women earn less than men on average, lower pension incomes give higher replacement rates and the state pension makes a proportionally bigger contribution. Table 1 shows that the median expected pension pot for a woman on a median wage is smaller than that for a man, but achieves the TRR with greater probability.

Overall, the modelling results for these different hypothetical individuals demonstrates that the automatic enrolment system results in different outcomes for different individuals and that the current system is most likely to be sufficient for those on lower incomes.

Table 1: Pension outcomes for different individuals under current system

Source: PPI Individual Model. Note: Pension pots rounded to nearest £1,000 and pension income to nearest £10.

Scenario	Median pension pot	Median total pension income	Percentage of scenarios TRR achieved
Baseline: Male, median earner	£114,000	£13,450	11%
Earnings profiles			
Male, earning at 25th percentile	£73,000	£11,980	64%
Male, earning at 75th percentile	£169,000	£15,410	4%
Female, median earner	£83,000	£12,350	63%

Of course, these results depend on the assumptions made and, before examining the impact of options to increase pension saving in automatic enrolment schemes, we test the sensitivity of the estimations to some of these assumptions. To begin, we examine two policy changes that have been recommended elsewhere. These are the removal of the 'triple-lock' inflationary measure for state pensions and the removal of the lower earnings band threshold for automatic enrolment. These changes have been considered elsewhere (eg DWP, 2017a), but to provide context we briefly present their impact on the modelling used in this report.

The impact of policy changes

Replacing the triple lock with an earnings increase

Currently, state pensions receive an annual increase in line with the triple lock, which means it increases by the highest of the growth in average earnings, the CPI inflation rate or 2.5%. This policy was introduced by the coalition government and has applied since April 2011. In June 2017, the current government committed to maintaining it as part of its confidence-and-supply agreement with the Democratic Unionist Party. The policy is credited with improving the incomes of current pensioners (Thurley and Keen, 2017) and the Office for Budget Responsibility (OBR) estimates that it will, on average, lead to the state pension being uprated annually by 0.36 percentage points more than earnings growth (OBR, 2018). However, the lock has proven controversial and there have been numerous calls for it to be broken and replaced with an earnings link only (see, for example, House of Commons Work and Pensions Committee, 2016). It is undoubtedly costly, as the OBR has predicted that the cost of the triple lock relative to uprating in line with average earnings will eventually be 1% of GDP (OBR, 2018), and it weights welfare spending towards older people.

However, maintaining the triple lock is also of considerable benefit to future pensioners. The DWP finds that if the state pension is uprated in line with average earnings only and not with the triple lock then it will significantly increase the proportion of the population who are not saving enough

for their retirement (DWP, 2014).

Our findings support this. Removing the triple lock and replacing it with an earnings uplift from 2022 onwards would mean that, in our median outcome scenario, total pension income is about £780 lower per year, or £15 per week. It means the median earner in our modelling now achieves the Pension Commission's TRR in only 6% of scenarios (see table 2).

Removing the lower earnings threshold

By contrast, removing the automatic enrolment lower earnings band threshold leads to substantially more pension savings. In the current year (2019/20) the threshold for qualifying earnings is £6,136 with no pension contributions being made on earnings below this. The Department for Work and Pensions has the ambition to remove the threshold in the mid-2020s (DWP, 2017b), but it has yet to be legislated. Our modelling finds that removing the threshold increases savings by about £24,000 across a career, so it increases the median expected pot size from £114,000 to £138,000 in our baseline scenario. This increases the likelihood of achieving pension adequacy, but still this is only achieved in 21% of scenarios.

Table 2: Pension outcomes with differing scenarios

Source: PPI Individual Model. Note: Pension pots rounded to nearest £1,000 and pension income to nearest £10.

Scenario	Median pension pot	Median total pension income	Percentage of scenarios TRR achieved
Baseline	£114,000	£13,450	11%
Policy scenarios			
Remove triple lock	£114,000	£12,670	6%
Remove lower AE band	£138,000	£14,320	21%
Remove triple lock and lower AE band	£138,000	£13,500	13%
Retirement options			
Higher drawdown rate of 5%	£114,000	£15,190	33%
Take 25% lump sum as cash	£114,000	£12,440	4%
Retire 5 years early	£100,000	£12,850	1%

Removing both the triple lock and the lower earnings band threshold shows that the net effect of these two policy changes is small. Compared to the status quo, the median earner is expected to be slightly better off in retirement as the gain in income from increased savings in the workplace pension is slightly greater than the loss in income from the removal of the triple lock. Of course, greater pension contributions by the employee will mean less consumption during working life.

Sensitivity to drawdown assumptions

Next, we consider the impact of changing three assumptions about how the pension pot is decumulated: the rate of drawdown, the proportion of the pension fund used to provide an income, and the age of retirement. Relaxing the first of these by allowing higher drawdown rates increases the retirement income, but relaxing the other two by allowing individuals to take some of their pension in cash or to retire early reduces the likelihood of achieving pension adequacy.

A higher drawdown rate

The drawdown rate used in this modelling is assumed to be 3.5% per annum. This might seem

conservative, but against this we also assume that none of the pension pot is taken as a lump sum and used for discretionary purposes rather than to provide an income. Nevertheless, we test the sensitivity of the modelling results to the drawdown rate by assuming a drawdown rate of 5% per annum. We find this increases retirement incomes so that adequacy is achieved in 33% of scenarios instead of 11%, but it introduces a risk of the pension pot running out in the individual's early 80s.

A 25% lump-sum withdrawal

The baseline model assumes that all of the pension fund is used to provide a retirement income. In reality people tend to take advantage of the tax-free allowance, with recent evidence on pension decumulation indicating that it is normal for consumers to withdraw the 25% tax-free proportion of their pension pot early (FCA, 2017). When the modelling assumptions are changed to allow for this then retirement income falls substantially and the TRR is only achieved in 4% of scenarios.

Early retirement

Similarly, the assumption that the individual works up to the state pension age is unlikely to hold for many individuals. In 2013, the ONS estimated that just over half of men had left the labour market before the then state pension age of 65, and about 22% left at the age of 60 or younger (ONS, 2013a). Of course, individuals with better pension provision are more likely to retire early, but it is nonetheless useful to test the sensitivity of the results to early retirement. To do this we model a scenario in which the baseline is adjusted so that the individual retires at age 63 and in the five years before the state pension is received this income is replaced entirely from the pension pot. In this case the TRR is almost never achieved and there is a high risk of the pension fund being exploited.

Overall, we think the modelling presented here gives strong evidence that the current contribution rates for automatic enrolment will not lead to adequate retirement incomes for many workers, and those on median incomes will have to save additionally to their workplace pension.

Options for increasing contribution rates

We consider four possible options for increasing pension contributions. A summary of the outcomes from these is shown in table 3. A further summary of these options with the baseline modified to remove the lower earnings threshold and the triple lock is presented in the Annex.

Table 3: Pension outcomes under options for increasing rates

Source: PPI Individual Model. Note: Pension pots rounded to nearest £1,000 and pension income to nearest £10.

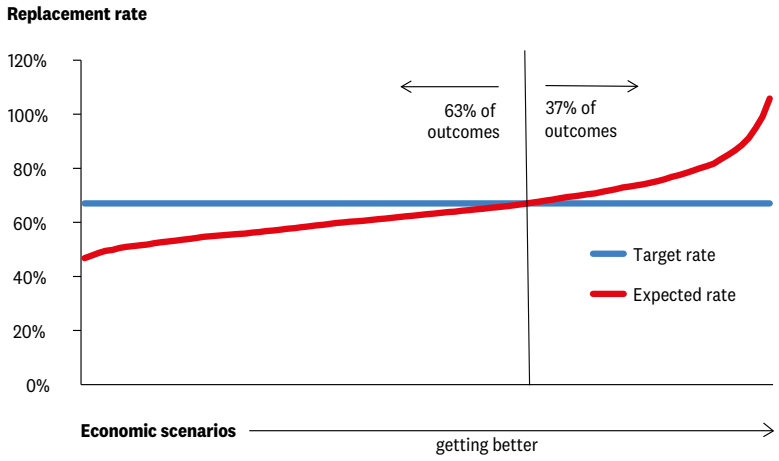
Scenario	Median pension pot	Median total pension income	Percentage of scenarios TRR achieved
Current system	£114,000	£13,450	11%
Options for increasing rates			
12% contributions	£171,000	£15,460	37%
Auto-escalation by pay rises:			
25% of pay rises	£171,000	£15,450	37%
1 percentage point	£169,000	£15,400	36%
Auto-escalation by age	£170,000	£15,420	35%
A new upper earnings band:			
12% from £19,500	£140,000	£14,370	22%
15% from £19,500	£155,000	£14,890	29%

Option 1: Increasing the default rate

The first option is simply an increase in the flat rate of contributions. The PLSA has proposed that the automatic enrolment minimum contribution rate should be raised from 8% to 12% of salary during the 2020s (PLSA, 2018). Our examination of this proposal finds that it would considerably increase the likelihood of achieving pension adequacy for the hypothetical male, median earner adopted here as the baseline. Figure 3 shows that if contributions were made at the 12% rate then he would be expected to achieve the target replacement rate in 37% of economic scenarios, and in fewer than 5% of cases would he retire with an annual income of less than half of the income that he had during employment.

Figure 3: Expected replacement rates if contributions increased to 12%

Source: PPI Individual Model



Option 2: Auto-escalation by salary increases

The next option considered is an auto-escalation process in which the contribution rate increases as the worker receives wage increases. This process is known elsewhere as a 'Save More Tomorrow™' scheme and has been advocated as a way of increasing savings rates by using insights from behavioural economics (Thaler and Benartzi, 2004). Scheme participants commit to higher pension saving rates in the future, which is more attractive than raising rates now because people disproportionately prefer consumption in the present. Further, since people have considerable levels of inertia they are likely to remain in the scheme once they have signed up, as with automatic enrolment more generally.

The increases in contribution rates are scheduled to follow increases in nominal salary. This means that wage increases in line with or below the rate of inflation will result in a reduction in take-home pay in real terms, but since nominal pay has increased then this reduction is less obvious. This is an attractive feature of 'Save More Tomorrow™' schemes, as individuals often suffer from loss aversion and value losses more than equivalent gains, so that this should help continued participation in the scheme.

On the basis of these insights, Thaler and Benartzi (2004) recommend a 'Save More Tomorrow™' scheme should have four features. First, employees should be asked if they want to commit to future increases in their savings rate as far in advance of their next scheduled pay rise as possible. Second, contributions should increase in the first pay period following the pay increase. Third, contribution rates should continue to increase with each subsequent pay rise until a predetermined maximum contribution rate is achieved. Fourth, the employee is allowed to opt out at any time, and an opt-down option exists so that an individual can choose to stay at the contribution rate they have already reached.

Evidence from implementations of auto-escalation schemes show that they can lead to large increases in pension saving rates (Thaler and Benartzi, 2004) and the schemes have advocates in the UK. The Treasury Select Committee recommended that '*the government should start considering the options for raising contribution rates for at least some people …, potentially by automatically escalating individual contribution rates in line with pay rises.*' (paragraph 126, House of Commons Treasury Committee, 2018).

In designing a system with auto-escalation there is a trade-off between the speed with which contributions increase and the maximum contribution level needed. We model two options.

The first entails the individual setting aside 25% of all future nominal pay rises as pension contributions until a maximum contribution rate of 12% is achieved. The second is that the contribution rate increases by one percentage point every year, unless nominal income increases are less than 1%, in which case the contribution increase is capped at the pay increase.

The first of these seems more conservative, as it guarantees there will be increases in nominal take-home pay. However, both options produce very similar results (see table 1). Further, both options are very similar to increasing the flat rate increase to 12%. This is because annual salary increases are, on average, large in a worker's early 20s and so the 12% rate is achieved in no more than four years with either option.

Option 3: Auto-escalation by age

An alternative option is to have auto-escalation by age so that contributions increase as the individual gets closer to retirement. A challenge with this policy is to identify the right age at which to increase rates and the level to increase to. We model contributions at 8% between ages 22 and 35, at 12% between ages 35 and 50, and at 15% for ages over 50. It would be expected that at each point at which rates rise, individuals will have an option to opt down, ie stay at their existing rate.

These parameters give very similar expected outcomes to the options modelled previously so that the median expected total income is almost identical (see table 3). Since savings are relatively more concentrated in a particular period (ie later in life) the outcomes are more sensitive to economic conditions at this time. This increases risk slightly and there is a reduced chance of achieving adequacy, although for the rates and ages we model the outcome is similar to that of a flat rate increase to 12%.

Option 4: A new upper earnings band

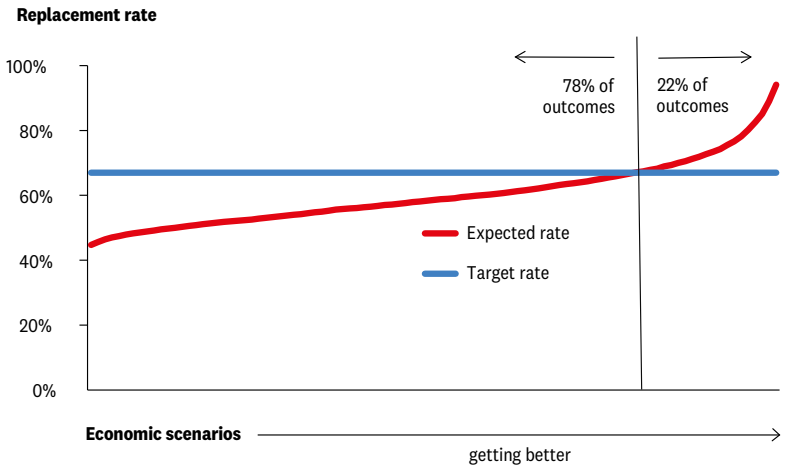
Finally, we model the impact of introducing a new upper earnings band. This would introduce progressive marginal contribution rates in which rates increase progressively so that they are higher for higher levels of earned income. This option would be like income tax where progressively higher marginal tax rates are levied as income increases.[4] In effect, the automatic enrolment default currently has such a system with a zero rate on contributions up to the lower level of qualifying earnings and 8% on all earnings between the lower and upper level of qualifying earnings. In modelling this option, we introduce a higher rate of pension contributions of 12% on all of an individual's salary above £19,500 up to the upper threshold of qualifying earnings (£46,350), while the current 8% contribution rate still applies on earnings between the lower threshold of qualifying earnings (£6,032) and £19,500.

The results for this are shown in figure 4. This option increases savings for the median earner, but by less than the other policy options and adequacy is expected to be achieved in just less than one in four scenarios (22%). Increasing the higher rate to 15% increases the likelihood of achieving adequacy (see table 2), but the expected pension pot is still less than that achieved with the other modelled options. Clearly, reducing the earnings level at which the next band is reached or increasing the contribution rates would increase the pension pot size, but the modelling indicates that these would have to be sizeable changes to achieve an increase equivalent to the other modelled options.

4 In 2018/19, no income tax is paid on £11,850, the basic rate of 20% is applied to all income between £11,851 and £46,350, the higher rate of 40% applies to income £46,351 and £150,000, and the additional rate of 45% on any income above this. The upper threshold of qualifying earnings for automatic enrolment schemes coincides with the level at which the higher income tax rate is levied.

Figure 4: Expected replacement rates if progressive contribution rates introduced

Source: PPI Individual Model



Increasing pension income for other workers

The analysis so far has focused on the impact of different policy options on the retirement income for a male, median earner. However, as table 1 shows, the impact of the existing automatic enrolment varies across individuals based on the amount they earn. In this section we explore the policy options for increasing pension savings for two different groups: men on lower incomes and women who have spells of part-time working.

Male lower earners

Those on lower incomes will generally save less in workplace pension schemes. They will have smaller pension pots at retirement and the state pension is relatively more important for this group. However, because the state pension replaces a greater proportion of pre-retirement income, then those on lower incomes are more likely to achieve target replacement rates under the current automatic enrolment system (see table 1). Given this, it is less clear that these individuals need to increase their pension contributions. Further, greater levels of saving by this group could lead to instances of over-saving, so that people might be needlessly foregoing consumption in the present or causing financial hardship.

To examine this, we model the removal of the lower threshold for a male worker at the 25th percentile of earnings. This policy will have a relatively larger impact on lower earners, since it represents a greater proportion of earnings on which contributions are now paid. it increases the median expected pot from £73,000 to £97,000, which is a greater proportional increase than for the median earner. It means that the target replacement rate would be met in 84% of scenarios (see figure 5). It also means that retirement income is predicted to exceed pre-retirement income in 5% of scenarios.

Figure 5: Expected replacement rates for lower earner with no lower threshold

Source: PPI Individual Model

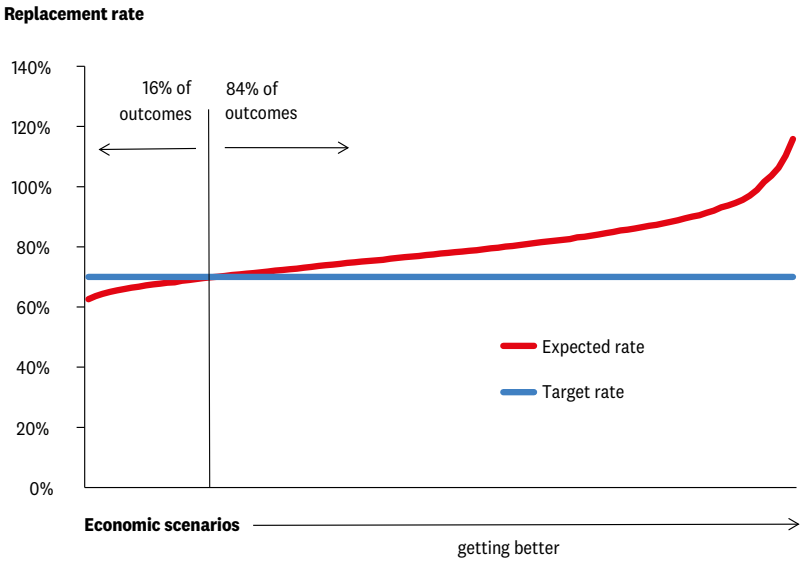
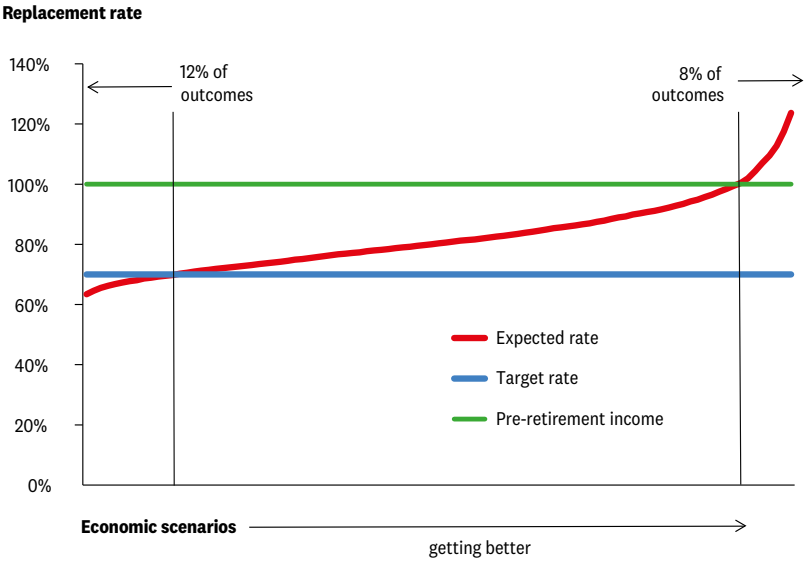


Figure 6 shows the impact of increasing the minimum rate to 12%, but leaving the lower threshold in place, for a lower earner. For a male who earns at the 25th percentile of the earnings distribution throughout his career, pension adequacy will be achieved in 88% of scenarios, and in almost one in ten cases he will have a retirement income that exceeds his pre-retirement income. If taken together with the removal of the lower threshold, then the issue of over-saving is likely to become a meaningful risk for these individuals.

Examining other options, auto-escalation by salary or age might also lead to over-saving, but is less likely to lead to financial hardship as it introduces opt-down opportunities that could mitigate this. Progressive marginal rates would have no impact on lower earners if well designed.

Figure 6: Expected replacement rates for lower earner with 12% contributions

Source: PPI Individual Model



Female workers

Increased participation in workplace pensions due to auto-enrolment effectively increases the importance of the second pillar of the pension system. However, this potentially has differing implications for men and women. Female workers are more likely to have careers marked by periods of part-time or no employment as time is taken out of the workplace to provide care for children or elderly relatives. As at October 2018, there were 6.2 million women working part-time compared with 2.2 million men, and women are more likely to say this is because they did not want a full-time job rather than being unable to find one (ONS, 2018a).

There is also an employment gap for women as those with children are less likely to be in work. This gap is greatest for those aged 25–34 where the employment rate is about 20% lower for those with children than without (ONS, 2013b). By contrast, men with children are more likely to be employed than those without. The employment gap is also larger for mothers with younger children and lone mothers. The ONS found the employment rate for lone mothers with a child aged under three to be just 39%, compared with 80% for a mother in a couple whose youngest child is aged 11 to 18 (ONS, 2013b).

The lost pension savings due to part-time work or no employment can be considerable. A median female earner working part-time in her 20s or early 30s might lose out on between £500 to £1,000 of pension contributions per annum.[5] To model the impact of reduced working time on pension outcomes, we consider a median-earning woman who works continuously between the ages of 22 and 68, but who works part-time only between the ages of 30 and 39.

Table 4: Pension outcomes with part-time working

Source: PPI Individual Model. Note: Pension pots rounded to nearest £1,000 and pension income to nearest £10.

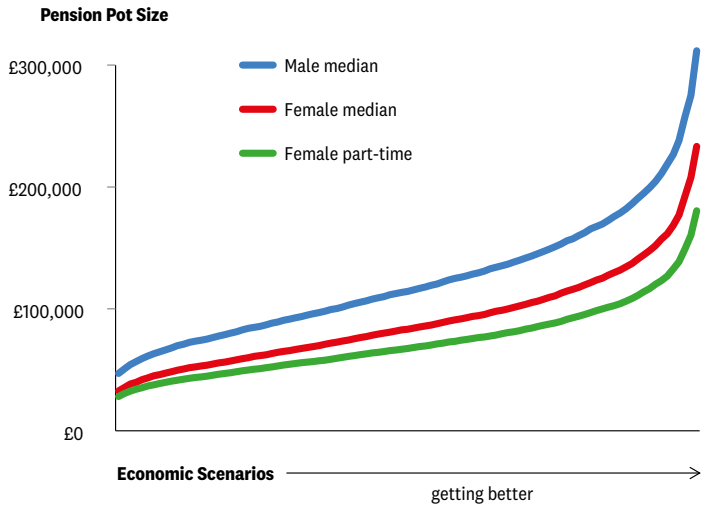
Scenario	Median pension pot	Median total pension income	Percentage of scenarios TRR achieved
Female, median earner	£83,000	£12,350	63%
Female, median earner, 10 years at part-time (0.5 FTE)	£68,000	£11,780	48%

Table 4 shows that, compared with a median-earning woman who always works full-time, the period of part-time causes the median expected pension pot to be worth approximately £15,000 less and the likelihood of achieving adequacy drops by 15 percentage points. Figure 7 shows that the size of this loss varies across the distribution of possible pension pots, but that it is typically in the range of 15% to 20% of the total pension pot. This exacerbates the expected difference between male and female pension funds, which is already large as the gender pay difference results in women having smaller pension contributions.

5 For example, a median-earning woman aged 22 to 29 has a wage of £23,920 (ONS, 2018d). Pension contributions of 8% above the lower threshold of qualifying earnings (£6,136) would result in annual pension savings of about £1,420. Working 0.5 FTE, but with the same hourly wage, would mean contributions of only about £470 – a difference of £950.

Figure 7: Expected pension pot for a median earner under current system

Source: PPI Individual Model.



Since workplace pension savings are proportionate to earnings then there seems little that could be done in the form of adjustments to savings rates to address this. However, one policy option available is for the government to make a lump sum contribution to a defined contribution pension scheme for new mothers (or any parent with primary caring responsibilities). The impact this would have on the pension pot would depend on: the size of the contribution, the growth of the pension pot, the age at which the contribution was received and the age at which the fund is withdrawn. As an example, a contribution of £1,000 at age 30, growing at a compound annual rate of 3.5%, would be worth almost £3,700 if it is accessed at the state pension age.

Public attitudes to pensions and automatic enrolment changes

A key consideration for any future development of the automatic enrolment system will be the level of public support that it has. To gain an initial understanding of this, Populus, on behalf of Which?, surveyed a representative sample of 2,074 UK adults to solicit their preferences for pension saving. Of the weighted population, 23% are retired, while 15% are currently contributing to a defined contribution pension scheme.[6]

Surveying the public on a subject as potentially complicated as pensions is inevitably challenging, and findings should be interpreted cautiously, as responses are likely to be sensitive to the framing of questions. Encouragingly though, respondents demonstrated a fairly high level of awareness of automatic enrolment with 62% of all respondents and 72% of those in work claiming to be aware of it.

To determine attitudes towards the level of income that an automatic enrolment pension might achieve, respondents were asked to imagine a person like the median earner in our base scenario. He has worked all his life earning an average full-time salary. He has full entitlement to the state pension and has contributed into an auto-enrolment scheme at the default rates for his full career, but he has no personal savings additional to this (see Annex 2 for the exact question). Respondents were primed that 50% of a median income is considered enough for a decent minimum standard of living, and that 67% of a median income would be an adequate income for a comfortable standard of living.[7] Respondents were then asked what retirement income they thought this person should be able to reasonably expect.

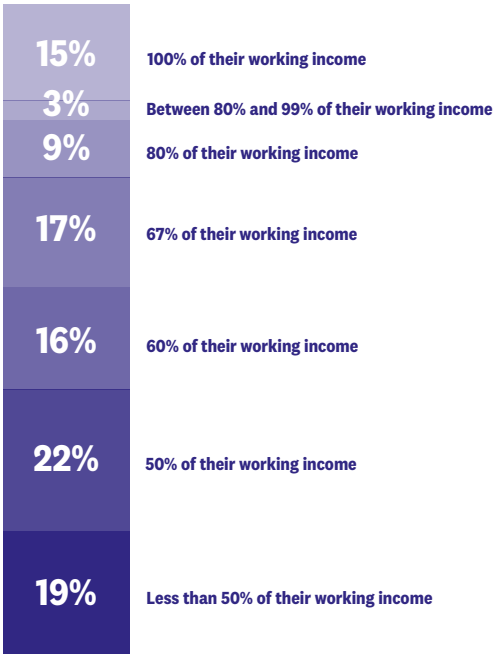
The results (figure 8) show a large variation in the income that respondents thought our baseline individual should reasonably be able to expect. Almost one in five (19%) thought the person should not be able to reasonably expect even half of their pre-retirement income, but a similar number (17%) thought he should be able to expect two-thirds of his pre-retirement income. Overall, 43% thought he should be able to reasonably expect at least two-thirds.

6 This is somewhat lower than the proportion reported in FCA's Financial Lives, which found that 28% of people contribution to a defined contribution pension scheme (FCA, 2018a).

7 50% is broadly in line with the Joseph Rowntree Foundation's Minimum Income Standard (at least for a pensioner couple), while 67% is the Pension Commission's TRR.

Figure 8: Retirement income that could reasonably be expected by a median earner

Source: Populus, on behalf on Which?. 2,074 UK adults surveyed online between 19 and 21 October 2018.

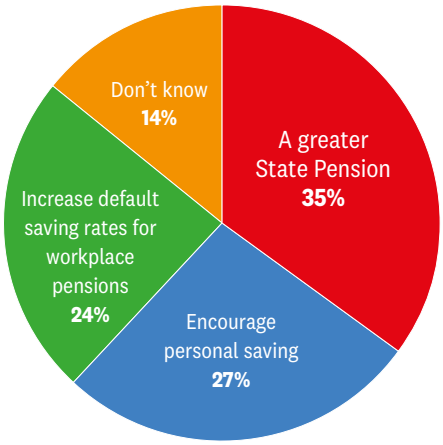


Attitudes towards this are clearly influenced by personal circumstances and experience of pensions because expectations are lower among those who are currently contributing to a defined contribution pension. However, almost one in three (29%) still thought that at least two thirds of pre-retirement income was a reasonable expectation. Those on lower incomes and who retired with a state pension only are more likely to think this person should expect a higher income.

Respondents were then informed that the average earner in the scenario described to them probably would not have an adequate retirement income and they were asked the most appropriate way to ensure they had an adequate pension. Opinion was again divided (see figure 9). Although overall a greater proportion choose an increase in the state pension, this was higher for women, those who had already retired and are living on the state pension only and those of working age, but who are no longer in the labour market. Relative to the population as a whole, those on higher incomes were more likely to choose a greater encouragement of private savings, while those with lower household incomes were less likely to say that default contribution rates for workplace pensions should be increased. By contrast, those currently contributing to a defined contribution pension were considerably more likely (37% compared with 24%) to choose increases in the default savings rates for workplace pensions.

Figure 9: Funding pension adequacy

Source: Populus, on behalf on Which?. 2,074 UK adults surveyed online between 19 and 21 October 2018.



Who should fund pension adequacy?

Respondents were surveyed on the different options for increasing automatic enrolment rates and people preferred a policy of rates increasing with earnings to one that increased contribution rates by age. Overall, 69% of respondents supported the proposition that people earning more should save a greater proportion of their salary into a workplace pension. Support increased to 74% among those currently contributing to a defined contribution pension scheme. By contrast, only 40% supported contribution rates increasing as the employee got older. This was higher among those currently contributing to a defined contribution pension (48%), but even then roughly one quarter of respondents did not support the policy.

There was also strong public support for the specific policy of auto-escalation by pay. Respondents were asked if they *'would support a government policy that automatically, but with an opt-out, increases the proportion of a person's salary which they save into a workplace pension when they have a pay rise*'. Only 8% tended to disagree and 3% strongly disagreed, while 68% were in support.

Finally, respondents were asked about their attitudes towards the balance of responsibility for saving into a workplace pension. Approaching half (45%) of respondents thought that employers and employees had an equal responsibility, but of the remaining respondents more were likely to lean towards the individual taking greater responsibility than the employer for funding (33% compared with 22%). These results were little affected by whether or not the respondent was currently contributing to a defined contribution pension, but those in higher-income households were more likely to think the individual should be more responsible.

Discussion

Defined contribution schemes inherently involve individuals taking on investment risk and outcomes cannot be obtained with certainty. This means it's not possible to design a system relying on defined contribution schemes that will guarantee both that individuals always have an adequate income, but never save too much.

One response to this is to have a system with contributions that should guarantee an income that gives a minimum standard of living, but expect individuals to save additionally if they want a greater income in retirement. This recognises that individuals have different preferences about how they want to smooth their consumption over their lifetime. However, this requires engagement in retirement planning, and the FCA finds that only about a third of defined contribution pension holders aged over 55 (but not retired) have given a lot of thought about how large their pension contributions should be (FCA, 2018b).

Given this, the system should be designed so that an average individual can reasonably expect to saving enough without taking additional action, but the modelling presented in this report supports work elsewhere in showing that the current minimum contribution rates for auto-enrolment are unlikely to achieve this. In this case, default contribution rates need to be increased – and the question is how?

We have modelled four options in this report. All have varying pros and cons and these are summarised in table 5. An increase in the flat rate of contributions to 12% is simple and will greatly increase the likelihood of achieving adequate retirement incomes for a median earner. Against this though it could lead to worse outcomes for those on low incomes as affordability concerns might lead to higher opt-out rates.[8] This could be mitigated if increases fall more on employers than employees, or if the government took on a greater share through a higher rate of pension tax relief.

It would be possible to help people avoid over-saving through a policy of auto-escalation by salary. The modelling showed that for our hypothetical individual on a median salary, auto-escalation led to a very similar outcome to the flat rate of 12%. However, each increase in the contribution rate creates an opportunity to let individuals opt down and continue to save at a lower rate, so that it might reduce the likelihood of over-saving. Further, since people increase saving rates over time then it ought to lead to lower opt-out rates than a flat rate of 12%.

An argument against auto-escalation by salary is the issue of how to deal with people who change employer. On entering a new job the default rate would have to be the lower rate of 8%, as the new employer will not know that the employee has increased contributions previously. Clearly, the employee could make this known, but this requires engagement and auto-escalation is intended to overcome a lack of this. It means that those who change jobs could be at greater risk of not saving sufficiently.

8 The proportion of people opting out of automatic enrolment has been lower than was anticipated prior to the enactment of the policy. The opt-out rate in 2016/17 was 9%, whereas government modelling assumed a rate of 15% (DWP, 2017b). The observed opt-out rate corresponds to initial employee contributions of 1%, although a survey of Nest members suggests that the first increase in contribution rates in April 2018 appears to have had little impact on opt-out rates (Nest Insight, 2019), although they may yet increase in response to the April 2019 increase in the contribution rate.

Table 5: Pros and cons of options for increasing automatic enrolment rates

Option	Pros	Cons
Increase in the flat rate to 12%	• Simple • Greatly increases likelihood of achieving pension adequacy	• Could lead to over-saving among low earners and potentially cause affordability problems for individuals
Auto-escalation by salary	• Likely to have similar outcomes to a 12% flat rate, but gives opportunities for people to 'opt down' • Savings rates increase without any loss in take-home pay, so should have lower opt-out rates than a 12% flat rate • Popular in the public survey	• Adds complexity • A default to the lower contribution rate when starting a new job might mean that those who change jobs more frequently will have lower pension savings.
Auto-escalation by age	• Greatly increases likelihood of achieving pension adequacy • People would make greater contributions when they are typically more affordable and when they are more engaged with pensions • Creates trigger points to encourage engagement in retirement planning • Opt-downs possible, and these can be made in light of greater knowledge about future circumstances	• Earnings in later career matter more so introduces more risk into outcomes • Least popular option in public survey
A new upper earnings band	• Prevents over-saving by low earners • Increased saving as earnings rise without any reduction in take-home pay • Increases for higher earners most popular with the public	• Adds complexity • Marginal rates may need to be high to achieve pension adequacy.

The option of increasing contributions by age is simpler and it means that people will be saving more as retirement becomes more salient. Evidence suggests that individuals are generally less engaged with retirement at younger ages and are less willing to save then (eg Bryan et al, 2011; Foster, 2017). At older ages there is more certainty about other factors that will affect the retirement incomes, such as the value of other assets, accrued benefits from other pension schemes and inheritance expectations. Given that these might negate the need for increased saving it may be preferable to be more cautious at younger ages.

The policy could be introduced with opt-down options, so that at each point of increase an individual could choose to remain on the same level of contributions, but this decision could be informed by using benefit projections for increased and same rate of savings. In fact, a potential advantage of the policy is that it creates trigger points for engagement with pensions and retirement planning. Auto-escalation by age also means that a smaller burden falls when earnings are lowest in early career and affordability concerns should be less of an issue in later career as, on average, older households have lower expenditure on essential spending such as housing and greater expenditure in discretionary categories such as recreation and culture (ONS, 2018b).

However, a disadvantage of increasing contributions by age is that a greater proportion of savings comes from later in the career. Savings made later have less time to benefit from investment growth, while people often like to taper their working life by switching to part-time employment prior to retirement (Chandler and Tetlow, 2014). There is also added risk as later career outcomes become relatively more important for retirement outcomes and individuals who suffer redundancy in their 50s would be further disadvantaged. Finally, there was less support in our public survey for this policy than for changing contribution rates according to income.

The option of a new upper earnings band with progressive marginal rates is more complicated than some of the other options modelled and would mean that individuals all have marginal rates of income tax, national insurance and pension contributions that would vary by income and, potentially, at different levels of pay. However, it has the advantage that it never results in a loss in take home pay and it means those on lower incomes will not over-save. The principle of saving more at higher incomes also proved popular in our public survey. The modelling shows that for

a median earner to achieve levels of saving comparable to other options then rates might need to increase steeply.

Beyond the issue of how to increase contribution rates, there is a question of how higher rates should be split between the employer, the employee and the government (through pension tax relief). The PLSA recommends that its proposed increase from 8% to 12% should be mostly funded by employers, for whom contribution rates would increase from 3% to 6% (PLSA, 2018).

We do not attempt to undertake the analysis needed to determine what impact increases in employer contributions would have on employment rates, but we note that contributions at 3% are low both by historical and international standards. Historically, the average employer contribution to defined contribution pension schemes was 6.6% in the UK in 2012, prior to the introduction of automatic enrolment (ONS, 2013c). Internationally, although employer contribution rates to the automatic enrolment 'KiwiSaver' scheme in New Zealand are also 3%, in Italy, where automatic enrolment was introduced in 2007, employers contribute 6.91% (OECD, 2014). In Australia employers must contribute at least 9.5% of the employee's salary to a defined contribution 'super' fund. Whatever the employer contribution rate, it must be set so as to avoid distorting employment decisions. For example, if higher employer contribution rates are associated with higher salaries this could act as a drag on pay.

Finally, it was raised above that reliance on workplace pensions to achieve adequate retirement incomes disadvantages those who take time out of the labour market or choose to work reduced hours, and that this will disproportionately affect women. A possible policy response is to make a lump-sum contribution to a defined contribution pension fund for new mothers. An advantage of this policy is that it should have few behavioural impacts, as it seems implausible that the receipt of the money at an age of no less than 55 should greatly affect labour market decisions made decades earlier. However, the contribution would help to narrow differences in retirement incomes between men and women.

The modelling presented in table 4 shows that part-time work at 0.5 FTE for 10 years might reduce a defined contribution pension pot by about £15,000. A lump-sum contribution of between £4,000 and £5,000 might be needed to offset such a large reduction, but employment rates are most affected for mothers with very young children and a smaller lump-sum contribution would be sufficient to offset a shorter period of part-time work or a short period of time out of the labour market when children are pre-school.

Of course, this would come at a cost to the Exchequer. To give a rough estimate of how much this would be, there were 680,000 births in England and Wales in 2017 (ONS, 2018c). The average number of children per woman was 1.76 in 2017 while 28% of births were to mothers born outside the UK. If payments were restricted to UK nationals and the first child only, then, using those statistics as proxies, there would be approximately 280,000 payments annually. If the lump-sum contribution was £2,000 then this would cost about £560 million. For context, this is more than that claimed back by higher rate taxpayers in Gift Aid relief (circa £500 million, HMRC, 2018), but less than the amount spent to provide free TV licences to the over 75s in 2017/18 (circa £650 million, DWP, 2018).

Conclusions and recommendations

The current system of automatic enrolment has successfully drawn millions of individuals into pension saving, but there exists a clear risk that contribution rates of 8% are too low for a median earner to achieve a retirement income that will give a comfortable standard of living. The modelling presented in this report supports the work of others in showing that there is likely to exist a savings shortfall for many individuals.

One option could be to encourage private saving on top of the workplace pensions. However, engagement with retirement planning is low and the behavioural barriers to saving, including inertia and myopia, that justified the adoption of an automatic enrolment system continue to exist. Worse, since the default rates are set by government they provide an 'official' benchmark for levels of saving, and our public survey indicates that a large proportion of individuals believe these default rates should be sufficient to result in at least an adequate retirement income.

We therefore do not feel a policy that encourages personal saving will be sufficient to address the savings shortfall, and instead Which? believes that automatic enrolment minimum contribution rates need to rise.

We think that the decisions on future changes to automatic enrolment should be guided by the following three principles:

1. Automatic enrolment default contribution rates should provide median earners with a reasonable expectation of having an adequate retirement income.
2. Minimum contribution rates should avoid over-saving by those on lower incomes.
3. The system should build in the opportunity for opt-downs so that people can easily tailor contributions to individual circumstances and to reduce opt-outs.

On the basis of these principles, we recommend that:

- **DWP should increase the auto-enrolment default contribution rate for those on middle incomes.**

  Which? recommends that this should be achieved by introducing a higher contribution rate for higher earnings. The analysis in this report has shown that to make a meaningful impact on the likelihood of achieving pension adequacy this higher rate needs to apply on all earned income above the lower threshold and so not be a marginal rate. Further modelling and consultative work should be undertaken by the Department for Work and Pensions to determine the level of this rate and the threshold at which it begins, but this report indicates the required rate is likely to be at least 12%.

  A risk with increasing contribution rates is that it has the potential to lead to over-saving for some individuals and the modelling presented in this report shows that this could be a particular risk for those on lower incomes, especially if an increase in the contribution rate is accompanied by a removal of the lower threshold for pension contributions. Given this, **we recommend that a lower minimum rate remains in place and that this is the default rate for lower earners**. Having two rates will allow higher rate contributors to opt down to the lower contribution rate if this better suits their needs and preferences.

One challenge with introducing a new higher contribution rate that applies to all income is that a pay rise may make someone eligible to save at the higher rate and cause a fall in take-home pay.

To overcome this **we recommend that auto-escalation processes should be encouraged to smooth transition from the lower to upper rate**.

A further challenge is that employer contribution rates must be set such that they avoid distorting employment decisions. Higher employer contribution rates for higher salaries could act as a drag on pay and so the difference in employer contributions between the higher and lower contribution rates should be minimised.

Finally, a consequence of a reliance on workplace pensions is that individuals who work less during their career because they take on caring responsibilities will have lower retirement incomes. This could be to look after a sick or elderly relative or, more commonly, to care for children. Since caring responsibilities tend to be unequally shared within households then this is likely to mostly disadvantage women. In such circumstances National Insurance credits ensure that there need be no loss in state pension entitlements, but no such mitigating factor exists for workplace credits.

To address this, and hence to boost female retirement incomes, we recommend that:

- **The government should make a lump-sum 'New Parent' pension contribution to a nominated defined contribution pension scheme for a mother on the birth of her first child.**

A female median-earner working part-time in her 20s or early 30s might forego between £500 to £1,000 of pension contributions per annum, while our modelling shows that working part-time for 10 years could reduce a median-earning woman's final pension pot by about £15,000. We propose that the government's lump-sum pension contribution should be £2,000 which, with investment growth and compounded returns, would offset some of the loss in pension savings that would occur from working part-time hours when children are pre-school. The household should be able to choose whether the contribution is instead made to a pension scheme of another parent or guardian. In the event that no pension scheme is nominated then the contribution should be made to a pension fund provided by NEST.

Annex 1: Additional modelling results

This Annex presents further modelling results for the different options to increase contribution rates. In all of these scenarios we have assumed that the triple lock on the state pension has been removed and there is no longer a lower earnings threshold, so that contributions are made from the first pound of earned salary. In comparison to the results presented in table 3 of the main paper, the chances of achieving target replacement rates are increased, by seven percentage points for the case of 12% contributions.

Table A1: Pension outcomes under options for increasing rates with modified baseline

Source: PPI Individual Model. Note: Pension pots rounded to nearest £1,000 and pension income to nearest £10.

Scenario	Median pension pot	Median total pension income	Percentage of scenarios TRR achieved
Baseline with no triple lock or lower earnings threshold	£138,000	£13,500	13%
Options for increasing rates			
12% contributions	£207,000	£15,890	44%
Auto-escalation by pay rises:			
1 percentage point	£205,000	£15,850	44%
Auto-escalation by age	£207,000	£15,890	44%
A new upper earnings band:			
12% from £19,500	£162,000	£14,320	22%
15% from £19,500	£179,000	£14,930	30%

Annex 2: Public Survey

Populus, on behalf on Which?, interviewed 2,074 UK adults online between 19 and 21 October 2018. Data were weighted to be demographically representative of the UK population.

The question on income expectations was asked as follows.

Research on retirement has found the following:

- *A person who has at least 67% of their working income paid to them in retirement (and therefore has an adequate pension) leads a relatively comfortable life.*
- *A person who has about 50% of their working income paid to them in retirement has just enough for a decent minimum standard of living*

Now imagine a person who has worked and paid taxes all their life and is coming up to retirement. That means they are entitled to a full state pension. They have earnt an average full-time wage throughout their career (currently £28,600 annually) and they and their employer have saved into a workplace pension at the default rate if you are auto-enrolled into a scheme. They do not have any other private pensions or savings that could be used for retirement.

Which of the following best describes the retirement income you think the average earner described above should be able to reasonably expect?

a. Less than 50% of their working income
b. £14,300 annually (50% of their working income)
c. £17,200 annually (60% of their working income)
d. £19,200 annually (67% of their working income)
e. £22,900 annually (80% of their working income)
f. Between 80% and 99% of their working income
g. The same income they received when working

References

Bryan, M, Lloyd, J, Rabe, B and M Taylor (2011), *Who Saves for Retirement*, The Strategic Society Centre with Institute for Social & Economic Research.

Chandler, D and G Tetlow (2014), *Retirement in the 21st century*, IFS Reports No. R98, Institute for Fiscal Studies, London.

Department for Work and Pensions (2013), *Framework for the analysis of future pension incomes*, DWP, London.

Department for Work and Pensions (2014), *Scenario Analysis of Future Pension Incomes*, DWP, London.

Department for Work and Pensions (2017a), *Automatic enrolment evaluation review 2017: analytical report*, DWP, London.

Department for Work and Pensions (2017b), *Automatic Enrolment Review 2017: Maintaining the Momentum*, DWP, London.

Department for Work and Pensions (2018), *Autumn Budget 2018 Expenditure and Caseload forecasts*, DWP, London.

Financial Conduct Authority (2017), *Retirement Outcomes Review: Interim Report MS16/1.2*, FCA, London.

Financial Conduct Authority (2018a), *Financial Lives Survey 2017*, FCA, London.

Financial Conduct Authority (2018b), *Retirement Outcomes Review: Final Report MS16/1.3*, FCA, London.

Finch, D and L Gardiner (2017), *As Good as it Gets?: The adequacy of retirement income for current and future generations of pensioners*, Resolution Foundation Intergenerational Commission, London.

Foster, L (2017). Young people and attitudes towards pension planning. *Social Policy and Society*, 16(1), 65-80.

HM Revenue and Customs (2018), *UK Charity Tax Relief Statistics 1990-91 to 2017-18*, HMRC.

House of Commons Treasury Committee (2018), *Household finances: income, saving and debt – Nineteenth Report of Session 2017-19*, House of Commons, London.

House of Commons Work and Pensions Committee (2016), *Intergenerational fairness – Third Report of Session 2016-17*, House of Commons, London.

International Longevity Centre - UK (2015), *Making the system fit for purpose: How consumer appetite for secure retirement income could be supported by the pension reforms*. ILCUK, London.

MacDonald, B-J and K D Moore (2011), *Moving beyond the limitations of traditional replacement rates*, Society of Actuaries, Schaumberg, Illinois.

Nest Insight (2019), *The auto enrolment experience over time - Understanding the real impact of contribution increases on behaviours and attitudes*, London.

OECD (2014), OECD Pensions Outlook 2014.

Office for Budget Responsibility (2018), *Fiscal sustainability report – July 2018*, OBR, London

Office for National Statistics (2013a), *Pension Trends, Chapter 4: The Labour Market and Retirement,* 2013 Edition, ONS, Newport.

Office for National Statistics (2013b), *Women in the labour market: 2013*, ONS, Newport.

Office for National Statistics (2013c), *Occupational Pension Schemes Survey: UK, 2012*, Statistical Bulletin, ONS, Newport.

Office for National Statistics (2017), *Occupational Pension Schemes Survey: UK, 2016*, Statistical Bulletin, ONS, Newport.

Office for National Statistics (2018a), *EMP01 SA: Full-time, part-time and temporary workers (seasonally adjusted)*, Dataset, ONS, Newport.

Office for National Statistics (2018b), *Family spending in the UK: financial year ending 2017*, Statistical Bulletin, ONS, Newport.

Office for National Statistics (2018c), *Births in England and Wales: 2017*, Statistical Bulletin, ONS, Newport.

Office for National Statistics (2018d), *Employee earnings in the UK: 2018*, Statistical Bulletin, ONS, Newport.

Pensions Commission (2004), *Pensions: Challenges and Choices, The First Report of the Pensions Commission*, London.

Pensions and Lifetime Savings Association (2016), *Retirement Income Adequacy: Generation by Generation*, PLSA, London.

Pensions and Lifetime Savings Association (2018), *Hitting the Target: A Vision for Delivering Retirement Income Adequacy*, PLSA, London.

Pensions Policy Institute (2015), *Automatic enrolment contribution scenarios post 2017*, PPI Research Report, London.

Pensions Policy Institute (2018), *Evolving retirement outcomes*, PPI Research Report, London.

Pensions Policy Institute (2019), *Increasing savings in automatic enrolment analysis commissioned by Which?*, PPI Research Report, London.

Thaler, R. H., & Benartzi, S. (2004). Save more tomorrow™: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112(S1), S164-S187.

The Pensions Regulator (2018), *Declaration of compliance report July 2012 – end June 2018*, London.

Thurley, D and R Keen (2017), *State Pension triple lock*, Briefing Paper CBP-07812, House of Commons Library, London.

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