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The impact of opting-out of private pension saving at younger ages

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Introduction

The Government is introducing auto-enrolment into workplace pension schemes, to be phased in between 2012 and 2017, for all eligible employees earning more than £7,475 and between age 22 and the State Pension Age (SPA). The policy aims to increase both the number of individuals saving in pensions for their retirement and to increase the total amount of private pension saving. Employees eligible to be auto-enrolled will retain the right to opt-out of their pension scheme and the success of the policy will in part depend upon the extent to which employees decide to do this.

Prudential has commissioned the Pensions Policy Institute (PPI) to produce a series of case studies illustrating the impact on employees of opting-out of workplace pension saving in the early stages of their working lives.

The examples shown in this report are hypothetical, and the outcomes are dependent on the assumptions used to construct them. In particular, the final pension fund and retirement income generated from pension saving will be heavily dependent on investment returns, which are very uncertain. The impact of different levels of investment return, or the volatility of investment returns, are not considered in this report. The case studies have been designed to highlight particular generic issues that can occur from opting-out of pension saving rather than to be projections of the levels of retirement income that different individuals achieve in practice. None of the findings should be generalised as being applicable to the population as a whole and the results of the case studies should not be used to advise individuals of what their own particular outcomes might be from pension saving or opting-out.

International evidence of auto-enrolment reforms into private pension saving in New Zealand suggest that auto-enrolment may significantly increase the number of people saving into a private pension. Estimates vary depending on opt-out rates, but PPI analysis undertaken in 2007 projected that the number of people saving into a work-based pension in the UK (either into NEST or into an existing pension scheme) as a result of the reforms could increase by an additional 4 to 9 million. Allowing for the recent proposed changes to the auto-enrolment threshold, this is similar to the Government's most recent estimates that there could be between 5 and 8 million new savers in work-based pension schemes as a result of the introduction of auto-enrolment, of which 2 to 5 million are expected to be in NEST.

Employees who opt-out of pension saving will forego both the employer and government contributions that would otherwise have been added to their pension, as well as the opportunity to accumulate investment returns on these contributions. This will reduce the value of any pension that they accumulate before retirement.

The impact of opting-out in early working life, rather than at any other stage, has been considered for two main reasons. Firstly, pension savings made at younger ages have greater potential to gain investment returns than those made at older ages due to there being a greater number of years remaining before retirement. Opting-out at younger ages is therefore likely to have a significant impact upon the final value of pension that an individual is able to accumulate by retirement. Secondly, it is possible that individuals might choose to opt-out at younger ages given, for example, student debts, the need to save for other priorities, such as housing and the fact that on average, younger people have lower earnings than at older ages, which may make pension saving less affordable.

The scope of the analysis carried out in this report and the results are presented in the case studies section.
The report focuses on the financial impact of opting-out of private pension saving on pension fund values and retirement income. The report does not consider individual preferences for higher disposable incomes at different ages and life stages.

The Technical Appendix provides a description of the modelling methods and general assumptions used in the analysis.

Summary of Conclusions

Prior to the introduction of auto-enrolment from 2012, Prudential has commissioned the Pensions Policy Institute (PPI) to produce a series of case studies illustrating the financial impact on individuals of opting-out of workplace pension provision in the early stages of their working lives.

The examples shown in this report are hypothetical, and the outcomes are dependent on the assumptions used to construct them. In particular, the final pension fund and retirement income generated from pension saving will be heavily dependent on investment returns, which are very uncertain. The impact of different levels of investment return, or the volatility of investment returns, are not considered in this report. The case studies have been designed to highlight particular generic issues that can occur from opting-out of pension saving rather than to be projections of the levels of retirement income that different individuals achieve in practice. None of the findings should be generalised as being applicable to the population as a whole and the results of the case studies should not be used to advise individuals of what their own particular outcomes might be from pension saving or opting-out.

When individuals are auto-enrolled into workplace pension provision, they face a choice. If they do nothing, and remain auto-enrolled, a contribution of 4% of their band earnings[1] is taken from their pay and paid into the pension scheme. On top of this, a minimum contribution of 3% of band earnings is made by the employer into the individual's pension, as well as a government contribution worth at least another 1% of band earnings (paid through tax relief). In effect the individual's own contribution is at least matched by the combined contribution from the employer and the government, giving a total contribution of 8% of band earnings.

Some individuals, however, will choose to opt-out of their workplace pension provision. This decision is likely to be influenced by a range of factors including the affordability of the employee's pension contributions and the extent of personal or household debt.

By opting-out, an individual's take home pay will by higher by 4% of band earnings as a result of not making employee pension contributions. While this will mean that the contributions are not made into the pension scheme and so will reduce the individual's final pension fund value, no assumptions are made as to what use the extra income is put to, or what its value is to the individual.

[1] Band earnings denote the minimum level of earnings that must be eligible for contributions in order to satisfy the auto-enrolment legislation. The current Coalition Government proposes in the draft Pensions Bill 2011 to set the earnings threshold above which every worker should be auto-enrolled at £7,475 in 2011/12. Contributions become payable on band earnings over £5,715 in 2011/12 and up to a limit of £38,185.

However, the employer and the government contributions are foregone by the individual who opts-out, as are the investment returns that these contributions could have accrued had they been invested into the pension scheme. This report therefore considers the impact of unpaid employee contributions separately from the impact of foregone employer and government contributions.

Under the assumptions used in this report, a median-earning man who is auto-enrolled into NEST[2] at the minimum contribution level for his entire working life could accumulate a final fund value at State Pension Age (SPA) of £93,600.[3] Upon retirement he could take a 25% tax free lump-sum of £23,400, and purchase a single-life, level annuity worth £3,850 per year after tax.[4]

Had he opted-out for the first 10 years of his working life:

- He would receive cumulatively £6,200 more income while opted-out
- His fund would reduce by £18,800 (20%) to £74,800 at SPA, of which:
  - £9,400 arises from unpaid employee contributions and associated investment returns.
  - £9,400 arises from foregone employer and government contributions and associated investment returns; which accounts for 50% of the total reduction.
- His tax-free lump-sum reduces by 20% to £18,700.
- His post-tax annuity income reduces by 20% to £3,100 per year.

If this median earning man is auto-enrolled into a more generous pension scheme than the minimum required by legislation, he could forego more in the form of employer and Government contributions.

For example, if he is auto-enrolled into an existing employer Defined Contribution scheme with the average level of contributions seen today (consisting of an employee contribution of 2.5% of gross salary, a 6% employer contribution and a government contribution delivered, through tax relief, equivalent to 0.6% of gross salary), he could accumulate a final fund value at SPA of £118,500. Upon retirement he could take a 25% tax free lump-sum of £26,600, and purchase a single-life, level annuity worth £ 4,900 per year after tax.

Had this median earning man opted-out of pension saving for the first 10 years of his working life:

- He would receive cumulatively £5,300 more income while opted-out
- His fund would reduce by £22,700 (19%) to £95,800 at SPA, of which:

[2] Employers may choose to auto-enrol their eligible employees either into an existing qualifying private pension scheme, or they can use the new low cost scheme that has been established by the government – The National Employment Savings Trust (NEST).

[3] PPI calculations using the Individual Model – see Technical Appendix for further information

[4] Post tax income estimates assume that the individual's annuity income is fully taxable at the basic rate. If this is not the case, the individual's post-tax annuity income will be different.

  - £6,200 arises from unpaid employee contributions and associated investment returns.
  - £16,500 arises from foregone employer and government contributions and associated investment returns; this accounts for 73% of the total reduction.
- His tax-free lump-sum reduces by 19% to £23,400.
- His post-tax annuity income reduces by 19% to £3,950.

The individual auto-enrolled into his workplace scheme at average contribution levels, rather than minimum contribution levels, receives a much more generous employer contribution. Overall, 73% of his pension contributions are paid by his employer and the government, compared with 50% for his counterpart receiving minimum employer contributions. By opting-out of private pension saving he is therefore foregoing a larger amount.

The impact of opting-out early in working life can have a larger proportional impact on some individuals, depending on their work history and when they take time out of the labour market.

For example, if a low earning woman (with a typical female work history, including breaks for caring) is auto-enrolled into NEST at the minimum contribution level she could accumulate a final fund value at SPA of £35,000. Upon retirement she could take a 25% tax free lump-sum of £8,700, and purchase a single-life, level annuity worth £1,300 per year after tax.

Had she opted-out for the first 10 years of her working life:
- She would receive cumulatively £2,900 more income while opted-out
- Her fund would reduce by £8,800 (25%) to £26,100 at SPA, of which:
  - £4,400 arises from unpaid employee contributions and associated investment returns.
  - £4,400 arises from foregone employer and government contributions and associated investment return; this accounts for 50% of the total reduction.
- Her tax-free lump-sum reduces by 25% to £6,500.
- Her post-tax annuity income reduces by 25% to £1,000.

The low earning woman sees a greater proportional impact on her pension fund and pension income because a greater proportion of her lifetime earnings are received in the first 10 years of her career than is the case for the median earning man. Women are, on average, more likely to take years out of the work force for caring responsibilities in their mid and late careers.[5]

[5] Phillipson, C. Smith, A. (2005)

The outcomes produced in this report are for hypothetical individuals, under very specific assumptions. In reality, outcomes from workplace pension saving will depend upon many factors:

- All of the individuals illustrated are 22 in 2018, when auto-enrolment is assumed to have been fully introduced. Today's older people are likely to receive less through auto-enrolment as there are fewer years in which they can contribute, although some older workers may have accrued pension rights from earlier in their careers.
- The individuals illustrated are assumed to have typical work histories and earnings profiles. The amount of private pension saving that an individual can accumulate in their lifetime is likely to be smaller if they do not work as many years, or experience lower earnings.
- Investment returns achieved by an individual's pension fund may vary. In addition, the impact of the volatility of investment return levels is not considered in this paper as the focus is on decisions rather than fund performance.
- The case studies used here do not consider the possible interaction between the private pension fund built-up as a result of auto-enrolment and the state pension system, and in particular means-tested benefits. Individuals who might be entitled to means-tested benefits (in particular Housing Benefit) at some point during retirement may find that the income received from the state falls as income from private pension increases. This could reduce the value to some individuals of remaining auto-enrolled. If such an individual remains auto-enrolled, the loss in income from the state can offset the higher private pension income from the employer and Government contributions.

Case studies: the impact of opting-out of private pension saving

The purpose of this report is to investigate the impact of opting-out of workplace pension saving, following the introduction of auto-enrolment. Specifically, this report is focussed on assessing the impact of opting-out of workplace pension saving at younger ages. This section provides a description of the analysis and assumptions that have been made, followed by presentation of the results. A description of the general economic assumptions made in PPI modelling is available in the Technical Appendix. A short description of auto-enrolment, including a description of the earnings thresholds and minimum contributions used in this analysis is provided in Box 1.

Box 1: Background on auto-enrolment

The Government is introducing auto-enrolment into workplace pension schemes, to be phased in between 2012 and 2017, for all eligible employees earning more than £7,475 and between age 22 and the State Pension Age (SPA). The policy aims to increase both the number of individuals saving in pensions for their retirement and to increase the total amount of private pension saving. Employees eligible to be auto-enrolled will retain the right to opt-out of their pension scheme and the success of the policy will in part depend upon the extent to which employees decide to do this.

The current Coalition Government proposes in the draft Pensions Bill 2011 to set the earnings threshold above which every worker should be auto-enrolled at £7,475 in 2011/12 terms. Contributions become payable on band earnings over the National Insurance primary threshold (£5,715 in 2010/11) up to the upper limit of £38,185 (2010/11 earnings terms). Upon auto-enrolment, minimum total contributions of 8% of earnings within designated bands will be contributed to the selected private pension. This will be made up of 4% of band earnings contributed by employees, matched by a compulsory 3% from the employer and a minimum 1% from the Government, delivered through tax relief.

The implications of opting-out

When individuals are auto-enrolled into workplace pension provision, they face a choice. If they do nothing and remain auto-enrolled, a contribution of 4% of their band earnings is taken from their pay and paid into the pension scheme. In addition to this, a contribution of 3% of band earnings is made by their employer into the individual's pension as well as a government contribution worth 1% of band earnings.[6]

However, some individuals will choose to opt-out of their workplace pension provision. This decision is likely to be influenced by a range of factors

[6] Based on a basic rate tax payer. This will be higher for an individual paying at a higher rate.

including the affordability of the employee's pension contributions and the extent of personal or household debt. This report examines the impact of opting-out from workplace pension provision in the first 10 years of working life as there are a number of pressures facing young people that may lead them to take this choice. For example, student debts, the need to save for housing and the fact that on average, younger people have lower earnings than at older ages. But opting-out of private pension saving at young ages can have a significant impact upon the final value of pension that an individual is able to accumulate by retirement, due to the greater potential for accumulation of investment return that contributions made at these ages have relative to those made in later working life.

By opting-out, an individual will choose not to contribute into their pension at the minimum auto-enrolment levels, and their take-home pay will be higher by 4% of band earnings as a result. While this will reduce the size of their workplace pension at retirement, the individual may place more value on being able to put the money to an alternative use, such as:

- Repayment of personal debt
- Covering living expenses or a desire for higher consumption
- Alternative forms of saving, for example short-term saving or saving for housing

This analysis estimates the impact of the non-payment of employee contributions and the investment return that they would otherwise have gained, on the final value of an individual's pension fund. It does not consider what alternative use these contributions could have been put to, or the possible value of these uses to the individual.

However, an individual choosing to opt-out of a workplace pension scheme offering the minimum contribution levels does not receive the employer contributions of 3% and Government contribution of 1% of band earnings that would otherwise have been paid into their pension. The individual is unable to put these contributions to alternative use.

The analysis in this report therefore considers the impact of unpaid employee contributions separately from the impact of unpaid employer and government contributions.

It has been suggested by some commentators that, in response to the increased labour costs that employers will face due to the introduction of compulsory employer contributions to a pension scheme, that overall wage levels could increase less than they would have done if auto-enrolment had not been introduced.[7] Employers may offer lower wages to all employees, to offset the employer pension contribution.

[7] See for example Johnson *et. al.* (2010)

If this is the case, however, an individual who opts-out is still foregoing some future pension income that they will not then be able to access. This is because the employer is likely to offer lower wages to all employees. By opting-out, an individual will still forego the value of the employer contributions and the government contributions that they would have received if they had remained auto-enrolled.

Case studies

The PPI Individual Model has been used to consider the working lives and savings behaviour of four different individuals, illustrating the potential different outcomes for men and women and for median and low earners – the main target group for auto-enrolment. Each of these individuals begins work at age 22 in 2018:

Median earning man – auto-enrolled into NEST

- He starts working at age 22 in 2018.
- Throughout working life, he earns at median age-specific earnings for men,[8] with a starting salary of £22,400.
- He retires at SPA, age 68 in 2064.
- Upon starting work, he is auto-enrolled into NEST, into which he and his employer contribute at the minimum level.[9]

Median earning man – auto-enrolled into a workplace DC scheme with higher contributions

- He starts working at age 22 in 2018.
- Throughout working life, he earns at median age-specific earnings for men, with a starting salary of £22,400.
- He retires at SPA, age 68 in 2064.
- Upon starting work, he is auto-enrolled into his employer's existing workplace DC scheme, into which he and his employer contribute at the average level[10] of 9% of gross pay. This consists of an employee contribution of 2.5%, government contribution of 0.5% and employer contributions of 6% of gross pay.

[8] Based on earnings distributions at each age in the Labour Force Survey

[9] A total of 8% of gross salary between the Primary Threshold and £38,185 (2010/11 earnings terms). This consists of 4% employee contributions, 3% employer contributions and 1% Government tax relief.

[10] Based on information from Pension Trends 2010 – www.statistics.gov.uk

Low earning woman – auto-enrolled into NEST

- She starts working at age 22 in 2018.
- When working, she earns at the 30th percentile of age-specific earnings for women, with a starting salary of £17,300.
- Between the ages of 30 and 35 she takes time out of work to care for her children.
- When she returns to work, she works part-time for two years at 50% of full-time earnings.
- She returns to work full time until she is 55, then she takes two years out of work to care for her mother.
- She returns to work at 57, working part-time for the first two years before returning to work full time.
- She retires at SPA, age 68 in 2064.
- She is eligible for auto-enrolment in each year that she is employed.
- When auto-enrolled, she and her employer contribute to NEST at minimum contribution levels.

In order to illustrate the impact of opting-out on each of these case studies, a set of individuals with identical ages, earnings profiles and work histories have also been modelled. These individuals, however, choose to opt-out of their workplace pensions in the first 10 years of their working lives (when eligible for auto-enrolment). Following this, they contribute as in the original case studies for each year in which they are eligible.

No series of case studies can be fully representative of the population as a whole. The case studies in this report are all single individuals rather than couples and they all have fairly full periods of contributions to their workplace pensions. People with fewer years of contributions would be expected to receive less than the individuals illustrated. In particular, individuals illustrated here are 22 in 2018 when auto-enrolment is assumed to have been fully introduced. Today's older people are likely to receive less through auto-enrolment as there are fewer years in which they can contribute and therefore fewer years in which their contributions can receive investment returns.

Case study results

The results of the case studies are presented below. All figures have been presented in 2011/12 earnings terms and rounded to the nearest £100 for fund values and lump-sums and the nearest £50 for annuity incomes. As a result of this, figures may not sum and percentages given may not exactly correspond to the stated figures.

It is important to appreciate that outcomes are not certain and depend upon a number of assumptions, such as real earnings growth, charges and investment returns. In addition to this, the impact of the volatility of investment return levels is not considered in this paper as the focus is on decisions rather than fund performance.

The common assumptions used in the case studies are outlined in the Technical Appendix to this report. In addition to this, a number of assumptions specific to each case study are also made, for example, working histories and age-specific earnings.[11] These are outlined in the case studies themselves.

Median earning man - auto-enrolled into NEST

Under the baseline assumptions, the median earning man begins work at age 22 in 2018. He is auto-enrolled into NEST for all 46 years of his working life, retiring at age 68 (SPA) in 2064. The contributions from himself, his employer and the government accumulate with investment returns, reaching a final fund value of £93,600 at his SPA.

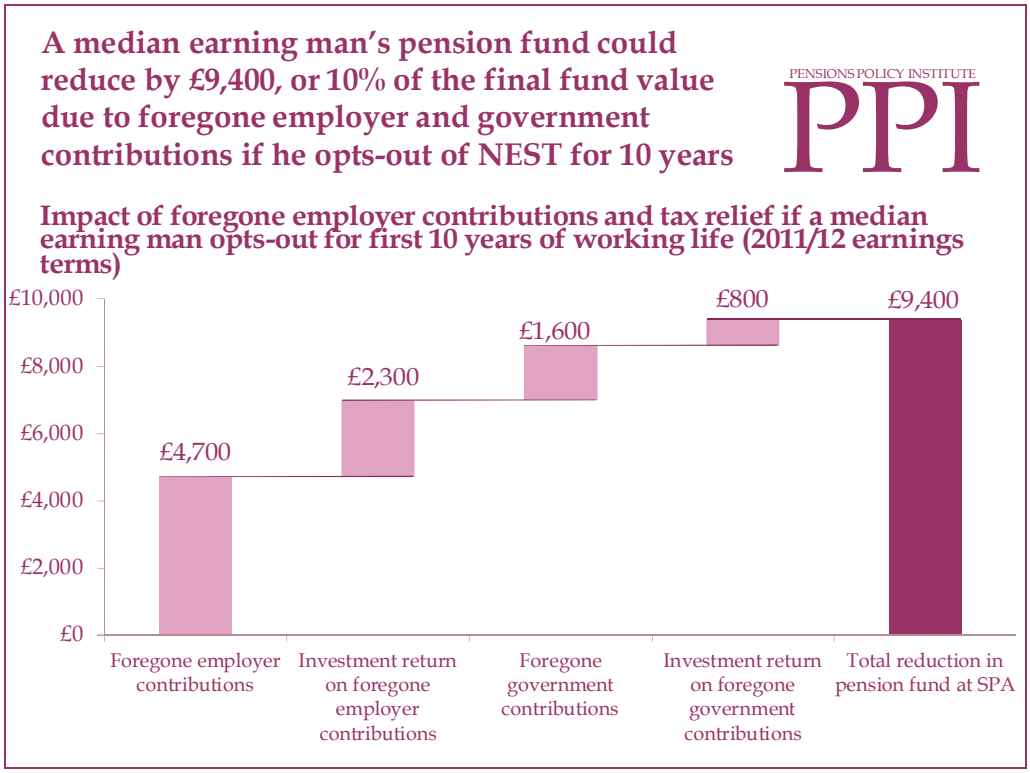
His colleague also begins work aged 22 and has the same career history. However, he decides to opt-out of NEST for the first 10 years of his working life. His final fund value at SPA is £74,800, a total reduction of £18,800 (20%) relative to the fund he could have accumulated had he remained auto-enrolled for his entire working life.

Of this reduction, £9,400, equivalent to 10% of the final fund value, arises from unpaid employee contributions and the investment returns that they could potentially have attracted. As a result of opting-out of pension saving, the individual cumulatively receives £6,200 more in take home pay in the first 10 years of his working life than his colleague that remained auto-enrolled. No assumptions have been made as to what the individual uses this income for; only that it is not paid into his pension fund.

The remaining £9,400 of the reduction, however, arises from contributions that the individual forgoes by opting-out; the employer and government contributions. The impact of foregoing these contributions on the final fund is displayed in Chart 1.

[11] Age-specific earnings means that, for example, the median earning man is assumed to have the median level of earnings of all men in full time employment *of that age,* rather than the median earnings of all men in full-time employment. This results in a more realistic pattern of earnings over a working life, wth earnings being relatively lower at younger ages, peaking in the 40s and 50s, before falling relative to average earnings until retirement.

Chart 1[12]



Upon retirement at SPA, both median earning men are assumed to take a 25% tax free lump-sum from their pension fund, before purchasing a single-life, level annuity.

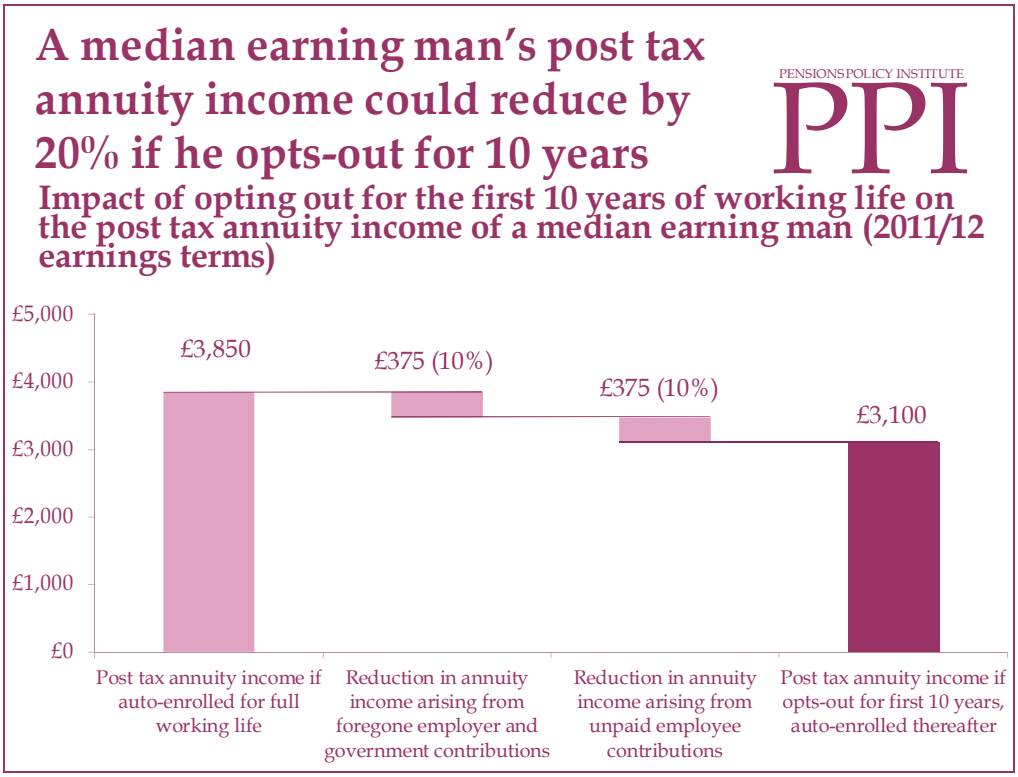
The median earning man that remains auto-enrolled for his full working life takes a tax free lump-sum of £23,400, whilst his colleague that opts-out for the first 10 years of his working life takes a tax free lump-sum of £18,700. This represents a reduction in the tax free lump-sum of £4,700 (20%).

The median earning man that remains auto-enrolled for his full working life purchases an annuity worth £4,800 per year, or £3,850 after tax.[13] His colleague that opts-out for the first 10 years of working life can purchase an annuity worth £3,850 per year, or £3,100 after tax. This represents a £750 (20%) per year reduction in post-tax annuity income, of which £375 (or 10% of the post-tax annuity income had he remained auto-enrolled for his entire working life) is attributable to foregone employer and government contributions and the investment return that they could have accumulated (Chart 2).

[12] PPI calculations using the Individual Model – see Technical Appendix for further information

[13] Estimates assume that the individual's annuity income is fully taxable at the basic rate. If this is not the case, the individual's post-tax annuity income will be different.

Chart 2[14]



If this median earning man is auto-enrolled into a more generous pension scheme than the minimum required by legislation, he could forego more in the form of employer and Government contributions.

Median earning man – auto-enrolled into a workplace DC scheme with higher contributions

Under the baseline assumptions, this individual begins work at age 22 in 2018. He is auto-enrolled into his employer's existing workplace DC scheme for all 46 years of his working life, retiring at age 68 (SPA) in 2064. In contrast with the median earning man auto-enrolled into NEST, he and his employer contribute at the average level[15] of 9% of gross pay, comprising of 2.5% employee contributions, 0.5% from the government and 6% from his employer. These contributions accumulate with investment returns, reaching a final fund value of £118,500 at his SPA.

His colleague also begins work aged 22 and has the same career history. However, he decides to opt-out of his workplace pension for the first 10 years of his working life. His final fund value at SPA is £95,800, a total reduction of £22,700 (19%) relative to the fund he could have accumulated had he remained auto-enrolled for his entire working life.

[14] PPI calculations using the Individual Model – see Technical Appendix for further information

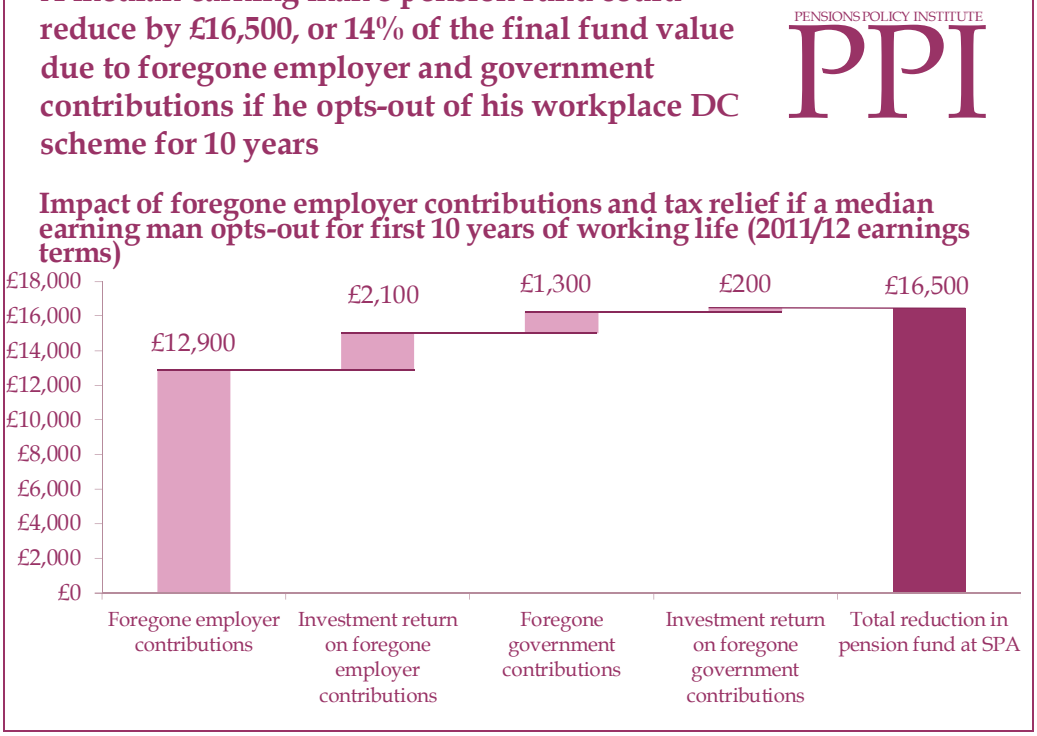
[15] Average total contribution rate for regular contributions to DC occupational schemes with 12 or more members, not contracted out of the additional state pension. Pension Trends 2010.

Of this reduction, £6,200, equivalent to 5.2% of the final fund value, arises from unpaid employee contributions and the investment returns that they could potentially have attracted. As a result of not making these contributions, the individual cumulatively receives £5,300 more in take home pay in the first 10 years of his working life than his colleague that remained auto-enrolled. No assumptions have been made as to what the individual uses this income for; only that it is not paid into his pension fund.

The remaining £16,500 of the reduction, however, arises from contributions that the individual forgoes by opting-out; the employer and government contributions. The impact of foregoing these contributions on the final fund is displayed in Chart 3.

Chart 3[16]

A median earning man's pension fund could reduce by £16,500, or 14% of the final fund value due to foregone employer and government contributions if he opts-out of his workplace DC scheme for 10 years



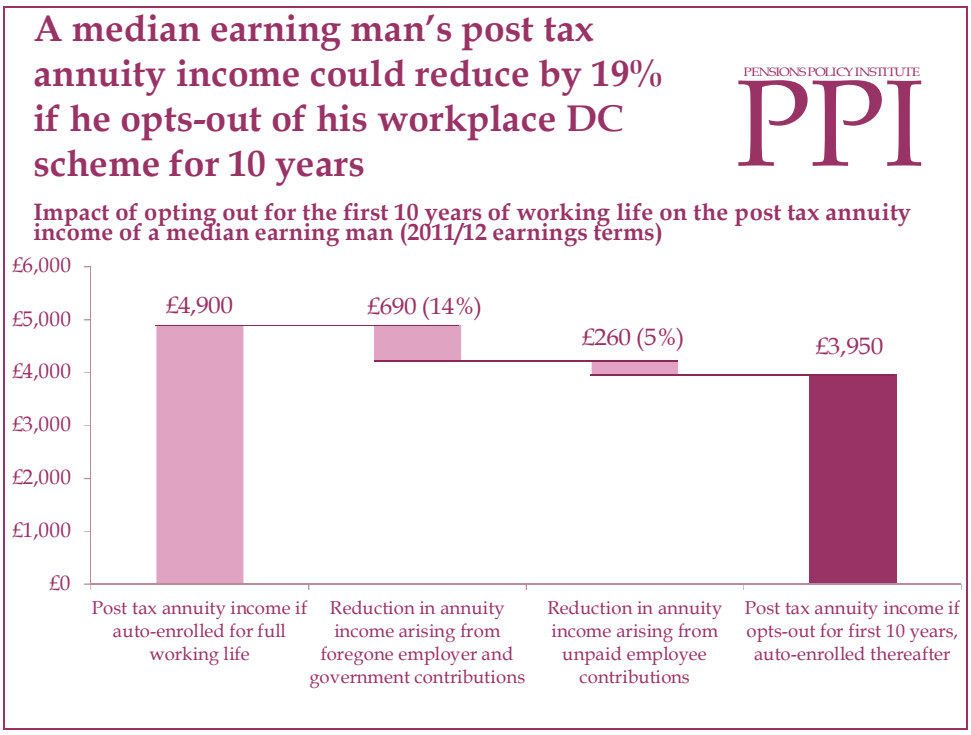
Upon retirement at SPA, both median earning men are assumed to take a 25% tax free lump-sum from their pension fund, before purchasing a single-life, level annuity.

The median earning man that remains auto-enrolled for his full working life takes a tax free lump-sum of £29,600, whilst his colleague that opts-out for the first 10 years of his working life takes a tax free lump-sum of £24,000, a reduction of £5,700 (19%).

[16] PPI calculations using the Individual Model – see Technical Appendix for further information

The median earning man that remains auto-enrolled for his full working life purchases an annuity worth £6,100 per year, or £4,900 after tax.[17] His colleague that opts-out for the first 10 years of working life can purchase an annuity worth £4,950 per year, or £3,950 after tax. This represents a £950 (19%) per year reduction in post-tax annuity income, or a £690 (or 14% of the post-tax annuity income had he remained auto-enrolled for his entire working life) reduction attributable to foregone employer and government contributions and the investment return that they could have accumulated (Chart 4).

Chart 4[18]



The implications could be even larger for individuals who opt-out of a Defined Benefit pension scheme, where the employer contributions are higher than in an average Defined Contribution scheme.

The impact of opting-out early in working life can have a larger proportional impact on some individuals, depending on their earnings profile and whether they take time out of the labour market.

Low earning woman - auto-enrolled into NEST

The low earning woman is eligible to be auto-enrolled into her workplace pension scheme for 38 years of her working life, four of which are as a part-time employee. The contributions from herself, her employer and tax relief accumulate with investment returns, reaching a final fund value of £35,000 at her SPA.

[17] Estimates assume that the individual's annuity income is fully taxable at the basic rate. If this is not the case, the individual's post-tax annuity income will be different.

[18] PPI calculations using the Individual Model – see Technical Appendix for further information

Her colleague also begins work aged 22 and has the same career history. However, she decides to opt-out of NEST in each year in which she is eligible to be auto-enrolled in the first 10 years of her working life. Her final fund value at SPA is £26,100, a total reduction of £8,800 (25%) relative to the fund she could have accumulated had she remained auto-enrolled for her entire working life.

Of this reduction, £4,400, equivalent to 12.5% of the final fund value, arises from unpaid employee contributions and the investment returns that they could potentially have attracted. As a result of not making these contributions, the individual cumulatively receives £2,900 more in take home pay in the first 10 years of her working life than her colleague that remained auto-enrolled. No assumptions have been made as to what the individual uses this income for; only that it is not paid into her pension fund.

The remaining £4,400 of the reduction, however, arises from contributions that the individual forgoes by opting-out; the employer and government contributions. The impact of foregoing these contributions on the final fund is displayed in Chart 5.

Chart 5[19]

A low earning woman's pension fund could reduce by £4,400, or 12.5% of the final fund value due to foregone employer and government contributions

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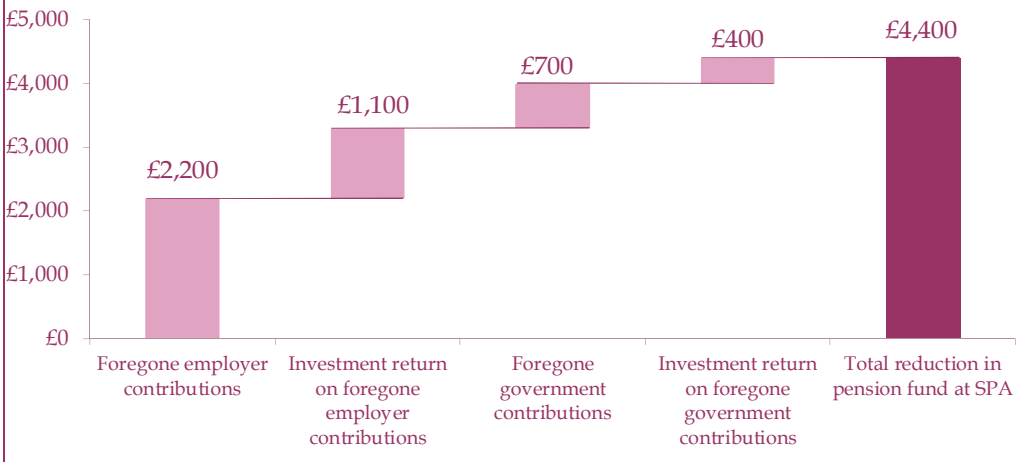
Impact of foregone employer contributions and tax relief if a low earning woman opts-out of NEST for the first 10 years of working life (2011/12 earnings terms)



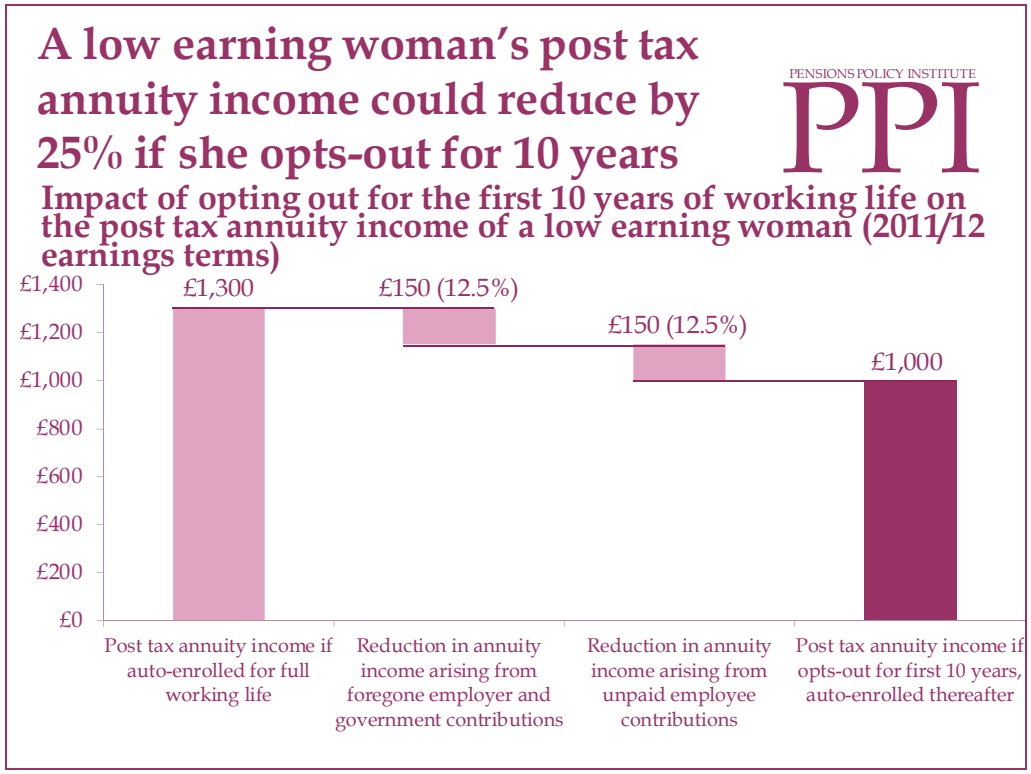
[19] PPI calculations using the Individual Model – see Technical Appendix for further information

Upon retirement at SPA, both low earning women are assumed to take a 25% tax free lump-sum from their pension fund, before purchasing a single-life, level annuity.

The low earning woman that remains auto-enrolled for her full working life takes a tax free lump-sum of £8,700, whilst her colleague that opts-out for the first 10 years of her working life takes a tax free lump-sum of £6,500, a reduction of £2,200 (25%).

The low earning woman that remains auto-enrolled for her full working life purchases an annuity worth £1,650 per year, or £1,300 after tax.[20] Her colleague that opts-out for the first 10 years of working life can purchase an annuity worth £1,250 per year, or £1,000 after tax. This represents a £300 (25%) per year reduction in post-tax annuity income, of which £150 (or 12.5% of the post-tax annuity income had she remained auto-enrolled for her entire working life) is attributable to foregone employer and government contributions and the investment return that they could have accumulated (Chart 6).

Chart 6[21]



[20] Estimates assume that the individual's annuity income is fully taxable at the basic rate. If this is not the case, the individual's post-tax annuity income will be different.
[21] PPI calculations using the Individual Model – see Technical Appendix for further information

Comparison of individuals

Table 1 shows a comparison of the proportional reduction in pension fund, lump-sum and annuity income resulting from opting-out for the first 10 years of working life for each individual. This has been divided into the total impact arising from all unpaid contributions and the impact from foregone employer and government contributions alone.

Table 1: Comparison of the proportional impact of opting-out for the first 10 years of working life (when eligible for auto-enrolment).

	Proportional decrease in pension fund, lump-sum and annuity income (pre and post tax) resulting from opting-out	
	Total	**Arising from foregone employer and government contributions**
Median earning man auto enrolled into NEST at the minimum contribution level	20%	10%
Median earning man auto enrolled into a workplace DC scheme at average levels of contributions	19%	14%
Low earning woman auto enrolled into NEST at the minimum contribution level	25%	12.5%

Table 1 shows that when considering the impact of all unpaid contributions, the proportional impact of opting-out is greater for the low earning woman than for either median earning man. This is because the low earning woman takes years out of the workforce, as well as working part time in the mid and late stages of her career. As a result, relative to the male examples, she earns a greater proportion of her lifetime gross earnings in the first 10 years. Unpaid contributions in this time therefore have a greater impact on the final value of her pension.

When considering the impact arising from foregone contributions alone, however, the impact on the median earning man auto-enrolled into an average workplace DC scheme is greater than for either individual auto-enrolled into NEST.

The reason for this is most clearly demonstrated through comparison of the two median earning men. Although they both earn the same amount and have identical working histories, the individual auto-enrolled into NEST is receiving

the minimum level of employer contributions of 3% of band earnings. He then makes this up to minimum required total contribution level of 8% band earnings through his own 4% contribution, which attracts a 1% contribution from the government.

The individual auto-enrolled into his workplace scheme, however, receives a much more generous employer contribution of 6% of gross salary. In addition to this, he contributes 2.5% on gross salary, attracting a government contribution of 0.6%. Overall 73% of his pension contributions are paid by his employer and the government, compared with 50% for his counterpart receiving minimum employer contributions. By opting-out, he is therefore, foregoing a larger amount.

In addition to this, whilst the individual auto-enrolled into his workplace DC scheme has a higher total pension contribution, he himself pays less than his counterpart that receives minimum employer contributions. This means, that by opting-out of his pension scheme, not only is he foregoing a larger amount in employer and government contributions, he is also experiencing a smaller increase in his take-home pay in return for it.

The interaction with state pensions

The analysis in this report focuses on the value of the employer contributions and tax relief foregone by an individual that chooses to opt-out in the first 10 years of their working life and the impact that the loss of these has on the pension fund that they can accumulate by retirement.

The case studies do not consider the possible interaction between private pension provision and the state pension system at retirement. Previous PPI research has shown that this interaction, and in particular with means-tested benefits, can substantially reduce the benefit received from saving in a workplace pension scheme for some individuals with certain characteristics.[22]

In particular, individuals who might be entitled to means-tested benefits (particularly Housing Benefit) at some point during retirement may find that the income received from the state falls as income from private pension increases. This could reduce the value to some individuals of remaining auto-enrolled. If such an individual remained auto-enrolled, the lost income from the state could offset the higher private pension income from employer and Government contributions.

This could mean that in some circumstances, even though the individuals do not receive the value of the employer contribution or tax relief they may still prefer to opt-out of pension saving if the value of these contributions and the investement returns on them are offset by losses in state pension and benefit income.

[22] See for example PPI (2006), PPI (2007) and PPI (2010)

It is also uncertain as to exactly what state pension young individuals may be entitled to by the time that they reach State Pension Age. For example, the current state pension system is under review at present.[23]

[23] DWP (2011)

Technical Appendix

Individual modelling

The PPI's individual model uses individual characteristics and working patterns to project retirement income from private pensions, state pensions and other benefits for hypothetical individuals.[24]

Assumptions

Detailed assumptions have been made about the individuals' working and saving behaviours and these are described in the boxes in the document. Unless otherwise stated, the modelling assumes:

- Long-term increases in the retail prices index (RPI) of 2.87%.
- Long-term increases in the consumer prices index (CPI) of 2%.
- Future annual earnings growth of 4.5%, in nominal terms.
- Expected investment returns of 3.0% in excess of prices, before charges, corresponding to a mixed equity/bond fund.
- Annual management charges in NEST of 0.3% of assets under management, with a 1.8% contribution charge, designed to match the NEST charging structure.

These assumptions are the result of consultation between the PPI and their modelling review board. The modelling review board consists of a number of experts in the field of financial modelling.

The annuities used to convert private pension savings into a retirement income are based on the following assumptions:

- Mortality is in line with the PxA92 actuarial tables, adjusted for year of birth and assuming medium cohort mortality improvements
- The investments underlying the annuities provide a return of 3.9% a year.
- Individuals take single life, level annuities.
- Annuity expenses of 4%.

Where post-tax annuity incomes are given, it has been assumed that annuity income is fully taxable at the basic rate. If this is not the case for an individual, their post-tax annuity income will differ from the stated values.

Assumed differences between NEST and average DC scheme

There are three differences between the structure of NEST and the average DC scheme in the modelling. These are as follows:

- The average DC scheme assumes assumes that employer and employee contributions are made on total gross earnings, rather than band earnings.
- Employee and employer contributions to the average DC pension scheme are assumed to be 3.1% and 6% respectively.[25] For comparison with the minimum contribution level, the employee contribution has been

[24] For more information on the Individual Model, see PPI (2003) *The Under-pensioned*

[25] These are in line with the average pension contributions to DC occupational pension schemes see ONS (2011)

expressed as part employee contribution, part government contribution, delivered through tax relief. For a basic rate taxpayer, this is equivalent to a 2.5% employee contribution and a 0.6% government contribution.

- The annual management charge is assumed to be 1%[26] under the average DC scheme.

[26] The DWP found 1% to be the median AMC of trust based schemes see DWP (2010)

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