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Future trends in pensions tax relief

This report is based upon modelling commissioned by The Resolution Foundation.

Resolution Foundation

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Report Summary

In the July 2015 Budget, the Chancellor, George Osborne, announced a consultation into the use of tax relief to "strengthen the incentive to save"[1] for retirement. The Resolution Foundation commissioned the PPI to analyse the impact of a number of potential reforms to the tax and National Insurance relief system, ranging from adjustments to the current system, through to more fundamental changes in the way the pension tax relief and employer National Insurance relief works.

There were no changes made to the current system of tax relief in the March 2016 Budget, though it did introduce the Lifetime ISA (LISA) as an addition to the current pension system.[2]

This report sets out the impact that the potential policy reforms might have on the projected cost to the Exchequer, the impact upon particular individuals and how the impact would be spread across the pension saving population.

Chapter one: the saving population under the current system

Chapter one considers the current saving population how the current system of tax relief applies to the individuals within it.

Chapter one: key points

- The number of pension savers is projected to rise to 22 million due to the roll out of automatic enrolment by 2018.
- By 2018 the projected cost of tax relief could be over £30 billion (in 2016 terms).
- The average rate of tax relief claimed is projected to be 29% in 2018.
- The proportion of tax relief claimed by higher and additional rate tax payers will decrease to 65% by 2018.

Chapter two: projected aggregate tax relief costs

Chapter two sets out the projected impact of pension tax relief reforms to the Exchequer. Flat rate EET (Exempt, Exempt, Taxed) and TEE (Taxed, Exempt, Exempt) variants are compared to the current system, and the projected impact to the Exchequer is calculated as the alternative systems mature. Appendix one details the aggregate modelling used to perform these projections.

Chapter two: key points

- A flat rate of tax relief could increase the proportion going to basic rate tax payers from 35% to 55%.

[1] HM Treasury (2015-16)
[2] It is a restricted ISA style savings vehicle following the ISA tax system with a 25% matching bonus to contributions, however it is not considered further within this report.

- The implementation of a TEE system will reduce the future income tax stream as the amount of income tax paid on pension withdrawals decreases.
- A pure TEE system could lead to a £17bn net windfall to the Government in 2018, as tax is still collected on virtually all pensions in payment, but without the cost of tax relief on contributions.

Chapter three: the impact of tax relief systems upon an individual

Chapter three sets out the projected impact of pension tax relief and National Insurance contributions (NICs) relief reforms upon an individual, considering key earnings levels including the National Living Wage (NWL). Flat rate EET and TEE variants are compared to the current system, and the projected impact upon the individual is calculated as the alternative systems mature. Appendix two details the individual modelling used to perform these projections.

Chapter three: key points

- A high earner will lose out in a flat rate EET system unless the rate is set at least 40%.
- For a low earner introducing employee NICs relief could result in an increase in taxed pension value of 8.5%.
- A low earner is unlikely to be paying income tax in retirement under the current EET system. As a result a 25% matching contribution in a TEE system generally yields the same outcome, as both systems are effectively exempt from tax throughout.

Introduction, pensions tax relief systems

In the Budget of 8 July 2015, the Chancellor, George Osborne, announced a consultation into the use of tax relief to "strengthen the incentive to save" for retirement.[3] The Resolution Foundation commissioned the PPI to analyse the impact of a number of potential reforms to the tax relief system, ranging from adjustments to the current system, through to more fundamental changes in the way the pension tax relief works.

The two main reasons why tax relief is given on pensions are to encourage people to save for their retirement, and to make the tax system for pension saving neutral by ensuring that people do not pay tax twice on the same income. The analysis in this report focuses on encouraging people to save.

This report sets out the impact that the potential policy reforms might have on the projected cost to the Exchequer, the impact upon particular individuals and how the impact would be spread across the pension savings population.

Notation of tax relief

The tax treatment of pensions in the UK is often abbreviated to three letters each of which is either an "E" or a "T" (standing for Exempt or Taxed respectively). For example, the current system is referred to as EET. Each letter refers to a different part of the lifespan of a contribution to a pension scheme. The first part, the first E, represents the treatment of the contribution when it is made. The second letter represents the tax treatment on investment returns on contributions. And the third letter, in the current system a T, represents the tax treatment when the proceeds of pensions saving are accessed by the individual.

So an EET system is one where contributions are exempt from tax, investment returns are exempt from tax, but the proceeds of pension savings are taxable. This report also considers another type of pension system, known as TEE, where the contributions are taxable, but thereafter investment returns are exempt and the proceeds are not taxed in retirement.

Tax systems analysed in this report

The reforms that The Resolution Foundation asked the PPI to consider are as follows:

- Maintain the status quo (i.e. a EET system with tax paid in retirement at the individual's marginal rate, but with access to 25% of the fund tax free);
- A single rate of tax relief at 20%, 25%, 30% and 33%;
- A TEE system with no matching payment;
- A TEE system with matching payments between 20% and 50%.

[3] HM Treasury (2015-16)

The current tax relief on pensions system in the UK[4]

The current UK tax treatment of private pension provision is generally expressed as EET – (Exempt, Exempt, Taxed). Contributions into a pension fund are exempt from tax, the accumulation of the fund is partially exempt from tax and the majority of the proceeds are taxable.

As a portion of the fund sum can be taken tax free after minimum-pension-age, the final 'T' is only partial. The accumulation is also not fully 'E'. The extent of taxation on the fund accumulation depends on the mix of investments within the pension fund, and the marginal tax rate paid by the individual. The roll up of funds invested directly in bonds, property or cash is completely tax free. However, since 1997, dividend income from equities has been taxed at a Corporation Tax rate, although capital gains remain tax free.

Allowances

The amount by which an individual can benefit from tax advantages is controlled by two 'Allowances': Annual and Lifetime. These Allowances apply to each individual, and across all registered pension schemes that the individual uses for providing benefits, regardless of the time of joining.[5]

An individual can make contributions to any number of private pension schemes and receive tax relief on the amount saved in that year up to the Annual Allowance. The Annual Allowance for 2015/16 is £40,000.[6]

Contributions above this level are taxed at an individual's marginal tax rate. The Lifetime Allowance is applied when the individual begins to receive a benefit from his or her pension saving. If the value of the pension saving at this time is above the Lifetime Allowance (£1.25 million for 2015/16),[7] an additional tax charge is applied. The Lifetime Allowance has been reduced to £1 million from April 2016.[8]

Contributions – 'Exempt'

Employer contributions are paid gross. Making pension contributions on behalf of employees has an additional tax advantage for the employer, as employers' pension contributions are not eligible for National Insurance contributions.

Employee contributions can be offset against income tax: individuals receive tax relief at their highest marginal rate. In some cases full relief is available immediately whereas in other cases basic rate relief is given immediately and higher rate relief is reclaimed through the end-of-year tax return.

[4] Adapted from PPI (2015)
[5] Although exemptions to the lifetime allowance are available to protect existing rights
[6] www.hmrc.gov.uk/pensionschemes/understanding-aa.htm
[7] www.hmrc.gov.uk/pensionschemes/understanding-la.htm
[8] HM Treasury (2016)

In any year, if the total contribution made to Defined Contribution schemes and/or the increase in value of benefits under Defined Benefit schemes for an individual are more than the Annual Allowance of £40,000 in 2015/16, the contributions in excess will be taxed at the rate of 40% on the excess.[9]

Fund Accumulation – mainly 'Exempt'

The pension fund accumulates in a tax-favoured environment: there is no tax on interest or income received gross and no tax on any realised capital gains. However, since 1997 pension funds have not been able to reclaim any tax paid on dividends on UK equities.

Proceeds – mainly 'Taxable'

From age 55, up to 25% of pension savings can be taken as a tax free lump sum. In a Defined Benefit pension scheme, the lump sum is often achieved by taking a reduced level of pension income. The remaining pension income is treated as income and subject to income tax rules. In a Defined Contribution pension scheme, the remainder of the fund can be withdrawn flexibly or some, or all of it can be used to purchase a retirement income product such as a lifetime, fixed or flexible annuity, an income drawdown product, or another product which offers income, savings and/or insurance. Because of the newness of the freedom and choice policy of flexible access, it is not yet known exactly how many different products might be available or what they will look like. However, people's income in retirement from pension savings will be taxed at their marginal rate at the point of receipt.

Pension funds in excess of the Lifetime Allowance can still be taken as pension benefit, but they are subject to a different tax charge. When taken as a cash lump sum, the excess is subject to 55% tax. When taken as a pension benefit, the excess is subject to 25% tax, with the income payments taxable as earned income.

National Insurance contributions

This paper does not address the notional impact of changing tax relief on National Insurance contributions (NICs). NICs are payable on employee contributions to pension schemes, in the same way that they are paid on the rest of the employee's salary. So changing tax relief does not impact the level of NICs paid unless there is a change in the employees' total gross salary. NICs are not paid on employer contributions to pension schemes. Therefore, NICs on employer pension contributions are zero irrespective of the level of employer contributions. The NICs cashflow to the Government does not change unless there is a change in the amount of total salaries paid to employees, for example as a result of an increase in salary sacrifice schemes.

[9] www.hmrc.gov.uk/pensionschemes/understanding-aa.htm

However some individual projections are made exploring the potential impact upon an individual's pension saving where NICs relief is introduced to employee contributions or removed from employer contributions.

Chapter one: the saving population under the current system

Chapter one considers the current saving population how this fits with the current system of tax relief.

The number of pension savers

In 2018 after the introduction of automatic enrolment there are projected to be around 22 million savers, Table 1.1, with an increasing proportion of savers being basic rate tax payers as automatic enrolment schemes introduce a higher proportion of basic rate tax payers into pension saving. Generally individuals who are automatically enrolled will join a Defined Contribution workplace pension.

Table 1.1: Automatic enrolment is projected to increase the number of pension savers and increase the proportion of those contributing to a Defined Contribution scheme (millions)[10]

Scheme type	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
DC	7.01	6.95	6.88	6.81	6.73	6.65	6.56	6.47	6.38	6.28
DB	13.38	14.65	14.92	15.03	15.15	15.23	15.31	15.38	15.44	15.50
Total	20.39	21.60	21.80	21.84	21.88	21.88	21.87	21.85	21.82	21.78

The marginal rate of income tax

The current pension system effectively defers the tax paid by individuals, from the period they contribute to a pension until the withdrawal of the funds. However many people attract a lower marginal rate of income tax in retirement than they do in working life, Table 1.2.

Table 1.2: Proportion of taxpayers who are higher/additional rate taxpayers[11]

Main source of income	Self-Employment	Employment	Pension
Higher Rate Taxpayers	11%	13%	5%
Additional Rate taxpayers	2%	1%	0%
Total	13%	14%	5%

- A higher proportion of working people are higher or additional rate taxpayers than pensioners
  - It may be more likely that additional rate taxpayers are higher rate taxpayers in retirement
  - Given earnings patterns, the higher and additional rate taxpayers are likely to be skewed toward older workers.

[10] PPI Aggregate Model
[11] PPI analysis of HMRC (2015a)

- This suggests that many people who are higher rate taxpayers while earning do not remain higher rate taxpayers in retirement.

The figures in Table 1.2 are based on 2012/13 data which is the most recent breakdown of this type available from HMRC. However HMRC have projected, in HMRC Table 2.1,[12] that the total number of higher/additional Rate taxpayers has increased by a quarter, resulting in around 17% of all taxpayers being higher/additional Rate taxpayers. This increase may be more likely due to an increase in higher/additional Rate taxpayer in work rather than pensioners.

The cost and distribution of pension tax relief

Automatic enrolment introduces a number of new savers to pensions saving, who will generally be eligible for pension tax relief at the basic rate. This increases the projected cost of tax relief as the volume of saving grows during the staging of automatic enrolment, and the minimum contribution rates are uplifted to 8% of band earnings.

Yet despite the effect of automatic enrolment and only 17% of all taxpayers being higher or additional rate taxpayers 65% of tax relief is projected to be spent upon additional and higher rate taxpayers under the current system, Table 1.3.

Table 1.3: The projected distribution of tax relief by the marginal rate of pension tax relief in 2018 under the current system of tax relief (£billions, current earnings terms)[13]

Marginal rate	Amount of tax relief	Proportion
Basic	10.5	35%
Higher	15.7	52%
Additional	4.0	13%
Total	30.1	100%

However the average rate of tax relief paid out, as automatic enrolment introduces a number of savers who are more likely to be basic rate tax payers than those who are already contributing to pensions, reduces over the introduction of automatic enrolment. The impact is to reduce the average rate of tax relief by 2%, Table 1.4.

Table 1.4: Impact of Automatic Enrolment on Projected Cost of Tax Relief on Contributions[14]

Year	2011	2018	2025	2030
Average rate of tax relief under current system	30%	29%	28%	28%

[12] HMRC (2015b)
[13] PPI Aggregate Model
[14] PPI Aggregate Model

This average rate stabilises in the long term as the profile of savers and the relative proportion of how much they save is not expected to vary to any great extent without any further external pressure.

National Insurance contributions

Under the current system all pension contributions made by the employer are exempt from National Insurance contributions (NICs), however employee contributions are subject to NICs. This allows for arbitrage within the current system whereby employees may choose to sacrifice salary for a higher employer pension contribution.

Analysis of HMRC table Pen6, Registered pension schemes: cost of tax relief, considers the distribution of NICs paid on employee contributions, which could in theory, be avoided were a salary sacrifice to be adopted by all. This amounts to approximately £1.4bn in 2014-15, Table 1.5.

Table 1.5: Tax relief and National Insurance contributions on employee pension contributions broken down by marginal income tax rate, 2014-2015 (£millions)[15]

Marginal rate	Gross employee contributions	Tax relief portion of contribution	NICs on employee contribution
Basic	9,515	1,903	1,142
Higher	9,216	3,687	184
Additional	2,245	1,010	45
Total	**20,977**	**6,600**	**1,371**

- 71% of tax relief is claimed by higher and additional rate tax payers
- 83% of NICs are paid by basic rate tax payers

This disparity is caused by the marginal rates of tax relief and NICs, where income tax is a progressive system and NICs are a regressive system.

[15] PPI analysis of HMRC (2016)

Chapter two: projected aggregate tax relief costs

This chapter sets out the projected impact of pension tax relief reforms to the Exchequer. Flat rate EET and TEE variants are compared to the current system, and the projected impact to the Exchequer is calculated as the alternative systems mature.

Flat rate EET systems

The current system of pension tax relief is often described as regressive due to the higher rate of benefit those on higher salaries may receive. This is a product of the income tax system, which it seeks to relieve, being imposed in a progressive manner. Flat rate EET systems differ from the current system of pension tax relief as instead of offering tax relief at the marginal tax rate paid by the individual a flat rate is applied instead. This may be greater or less than the amount of actual tax that the contribution may have attracted. This can be seen as a more progressive system as the effective tax rate paid on pension contributions increases with the marginal tax rate of the individual.

The PPI has modelled flat rates of tax relief at 20%, 25%, 30% and 33%. The projected costs of supporting each system are detailed in Table 2.1. The projected cost of the current system lies between the cost of a flat rate of 25% and a flat rate of 30%. The analysis does not include any behavioural adjustments to the population. If a flat rate system was to be put in place at a level between basic and higher rate taxation, it could relatively incentivise pension saving in basic rate tax payers and relatively dis-incentivise pension saving in higher rate tax payers when compared to the current system.

Table 2.1: The projected cost of EET pension tax relief systems at varying levels (£billions, current earnings terms)[16]

Year	2011	2018	2025	2030
Current system	28.9	30.1	25.0	21.5
20% flat tax relief	-	20.7	17.2	14.9
25% flat tax relief	-	26.4	22.1	19.1
30% flat tax relief	-	32.2	27.1	23.6
33% flat tax relief	-	35.9	30.4	26.5

Full results are contained in Appendix three, Table A3.1.

- Automatic enrolment increases the cost of tax relief by around £3bn in 2015/16 earnings terms.
- Where a 30% flat rate is broadly cost neutral before automatic enrolment, following automatic enrolment a 30% flat rate is more expensive than the current system.

[16] PPI Aggregate Model

The more progressive nature of a flat rate of pension tax relief results in the distribution of tax relief matching the distribution of contributions without the additional impact of the different marginal rates available. Comparing the distribution of tax relief by marginal income tax rate to the current system shows that the proportion of tax relief that would go to basic rate tax payers would increase from 35% to 55% if the rate of pensions tax relief were flat, Table 2.2.

Table 2.2: The projected distribution of tax relief by the marginal rate of pension tax relief in 2018 under the current system of tax relief and a flat rate[17]

Marginal rate	Current system	Flat rate (25%)
Basic	35%	55%
Higher	52%	36%
Additional	13%	9%
Total	**100%**	**100%**

TEE systems with matching payments

An alternative approach to pension tax reform could be to employ a TEE system and incentivise saving through a matching payment from the Government. The March 2016 budget introduced the Lifetime ISA (LISA) which is a form of this saving, a TEE system with 25% matching contribution.[18] The PPI has modelled a TEE system with comparable restrictions to the current pension tax system, with matching payments at a level of 0% (no matching), 20%, 25%, 30% and 50%. The matching payment can provide a similar effect to a flat rate of tax relief by topping up the contribution, Table 2.3 shows the potential breakdown for £1 total contribution into the pension pot.

Table 2.3: The equivalence of 20% tax relief to a 25% matching payment

	20% flat rate tax relief (EET system)	25% matching payment (TEE system)
Basic contribution From taxed income	80p	80p
Tax relief	$80\text{p} \times \frac{20\%}{(1-20\%)} = 20\text{p}$	-
Matching payment	-	$80\text{p} \times 25\% = 20\text{p}$
Total contribution to pension pot	**£1**	**£1**

The projected costs of providing such a matching payment are very similar to the equivalent costs of tax relief. However, upon withdrawal funds accumulated from contributions made in an EET system will be subject to income tax upon withdrawal, whereas funds accumulated under a TEE system will have no further tax liability associated with them upon withdrawal.

[17] PPI Aggregate Model
[18] PPI (2016)

The effect of this is that all current pension funds will generate an income tax cashflow for the Government as the funds are withdrawn. Where future contributions attract no income tax liability the scale of the income tax stream from pension fund withdrawals will reduce over time. This transitional period from one system to the other will take around 80 years as the youngest with some pension saving under the current system may have part of their post retirement income subject to income tax until their eventual death.

The reduction in the income tax cashflow would initially be gradual as all current pensioners and the most significant portion of all funds of those retiring in the near future would be liable for income tax. It could take over 15 years for this cashflow to be reduced by 10% when compared to the projected income tax cashflow under the current system, Table 2.4.

Table 2.4: The projected income tax stream on pension withdrawals (£billions, current earnings terms)[19]

Year	2011	2018	2025	2030	2035
Current system	16.7	17.5	18.5	17.9	18.7
TEE system	16.7	17.3	17.8	16.6	16.1
Impact	0%	-1%	-4%	-7%	-14%

Full results are contained in Appendix three, Table A3.2.

This reduction to the Government's income does not occur until the pension fund is withdrawn, and this impact may not be realised until a future administration. Including this projected impact upon the cost of providing a matching payment gives the following projected cashflows for TEE systems, Table 2.5.

[19] PPI Aggregate Model

Table 2.5: The projected cost of TEE pension systems at varying levels of matching contributions accounting for the impact on income tax streams upon pension fund decumulation (£billions, current earnings terms)[20]

	Year	2011	2018	2025	2030
Current system	Tax relief	28.9	30.1	25.0	21.5
	Income tax	12.4	16.7	18.5	17.9
	Net cost	**16.5**	**13.3**	**6.5**	**3.6**
TEE no matching payments	Matching payment	-	0.0	0.0	0.0
	Income tax	-	16.7	17.8	16.6
	Net cost	**-**	**-16.7**	**-17.8**	**-16.6**
TEE 20% matching payments	Matching payment	-	17.1	14.2	12.2
	Income tax	-	16.7	17.8	16.6
	Net cost	**-**	**0.4**	**-1.4**	**-4.3**
TEE 25% matching payments	Matching payment	-	20.7	17.2	14.9
	Income tax	-	16.7	17.8	16.6
	Net cost	**-**	**4.1**	**2.1**	**-1.7**
TEE 30% matching payments	Matching payment	-	24.2	20.2	17.5
	Income tax	-	16.7	17.8	16.6
	Net cost	**-**	**7.5**	**5.5**	**0.9**
TEE 50% matching payments	Matching payment	-	36.3	30.7	26.9
	Income tax	-	16.7	17.8	16.6
	Net cost	**-**	**19.6**	**17.4**	**10.2**

Full results for the cost of the matching payment are contained in Appendix three, Table A3.3, and for the income tax revenue in Appendix three, Table A3.2.

- A pure TEE system could lead to a £17bn net windfall to the Government in 2018, as tax is still collected on virtually all pensions in payment, but there is no tax relief on contributions.
- A 25% matching rate results in a £4.1bn net cost to the Government. This is because the cost of the matching contribution exceeds the amount of tax income from pensions in payment.

The cost of providing a 25% matching contribution upon pension saving rather than the current system could represent a saving to the Government of £9.3bn in 2018. This would represent the situation where the restrictions upon Lifetime ISAs (LISAs) were removed (by age, and by contribution level) such that the current level of pension saving could be directed into LISAs.

[20] PPI Aggregate Model

Chapter three: the impact of tax relief systems upon an individual

This chapter sets out modelling results on the outcomes for individuals at three earnings levels demonstrating the impact of a change in pension tax relief system at varying ages (20, 30, 40, 50, 60).

The three profiles of individuals considered are:

1. A low earner working 37.5 hours a week on the 2016 National Living Wage of £7.20, giving an annual income of around £14,000, inflated thereafter in line with average earnings. Pension contributions are assumed to be automatic enrolment minimums on band earnings.
2. A typical earner on the median income of a full-time worker – £27,440 in 2016 terms – with their earnings following the median earnings profile by age. Pension contributions are assumed to be 9% of full salary a year.
3. A higher earner beginning on £60,000 a year – putting them in the top 10% of full-time earners – increasing in line with earnings growth.

The results are presented as a 'Taxed Pension Value'. This is a single figure that sets out the value of pension saving available after retirement, in terms of the total value of the net income they might achieve under the potential policy reforms. This is an important consideration for comparison between EET and TEE systems as it accounts for the tax liability in decumulation that is attached to a fund built up in an EET system.

The behaviour of individuals in decumulation is assumed to be to take 25% of the fund as a tax free lump sum, where applicable under EET systems, and to use remaining funds to purchase a level annuity with an assumed annuity rate of 5.5%.

Flat rate EET systems

Future fund accumulation based upon contributions from 2016 until retirement at State Pension age shows that tax relief offered at anything above the current marginal income tax rate for the individual can result in a greater pension value at retirement, Table 3.1.

Table 3.1: The projected accumulation of future pension savings at retirement under the current system and flat rate EET regimes (Taxed pension value, £thousands, current earnings terms)[21]

Regime		Current system	20% flat tax relief	25% flat tax relief	30% flat tax relief	33% flat tax relief
Individual	Age in 2016					
Low earner	20	29.0	29.0	30.8	32.9	34.2
	30	22.1	22.1	23.5	25.2	26.3
	40	15.3	15.3	16.4	17.5	18.3
	50	8.8	8.8	9.3	10.0	10.5
	60	2.3	2.3	2.5	2.7	2.8
Typical earner	20	1.1	1.1	106.5	113.8	118.7
	30	83.1	83.1	88.3	94.3	98.3
	40	60.0	60.0	63.6	67.7	70.4
	50	35.9	35.9	38.3	41.0	42.8
	60	11.8	11.8	12.5	13.4	14.0
High earner	20	204.7	154.6	164.6	176.1	183.8
	30	159.0	120.5	128.2	137.0	142.9
	40	115.2	87.9	93.3	99.6	103.8
	50	72.5	55.8	59.2	63.1	65.6
	60	26.3	19.7	21.0	22.5	23.6

- A typical earner will be subject to tax relief at 20% under the current system and will therefore benefit from any higher rate of pension tax relief.
- A high earner stands to lose out at any of the flat rates considered as they are all below their current rate of tax relief at their marginal rate of income tax, 40%.

However, even though the high earner loses out compared to the current system, saving is still tax advantaged. For an individual paying higher rate income tax both before and after retirement the effective tax rate on marginal pension saving is neutral where tax relief is offered at 30%, (Table 3.2). There will still be an overall tax advantage achieved as income tax is not all paid at the higher rate, having accounted for allowances and basic rate income tax. The potential value is further complicated through allowances and matching employer contributions in an occupational pension.

Table 3.2: The effective rate of tax on marginal saving for an individual paying higher rate tax payer before and after retirement

Regime	Current system	20% flat tax relief	25% flat tax relief	30% flat tax relief	33% flat tax relief
Effective marginal tax rate	30%	47.5%	44%	40%	37.3%

[21] PPI Individual Model

- Under the current system income tax on the contribution is paid at the marginal rate of 40%, which is fully relieved. 25% of the withdrawal is taken tax free and the remainder is subject to income tax at the marginal rate of 40%. This leads to an effective tax rate of 30% over the lifetime of the marginal saving.
- Currently only 5% of tax payers in retirement pay higher or additional rate income tax, Table 1.2.

National Insurance and employee pension contributions

Under the current system all pension contributions made by the employer are exempt from National Insurance contributions (NICs), however employee contributions are subject to both employee and employer NICs. Within the current system employees may be able to avoid this National Insurance liability by choosing to sacrifice salary for a higher employer pension contribution. The scenario whereby the tax relief is widened to allow for NICs relief upon the employee contribution is considered. It is assumed that the total pension contribution is uplifted by the amount of the employee NICs, thereby maintaining the take-home pay of the individual.

The impact of introducing NICs relief is dependent upon the proportion of the employee contribution, the marginal rate of NICs, which is lower for a high earner, and the tax liability in decumulation, Table 3.3.

Table 3.3: The projected accumulation of future pension savings at retirement under the current system and flat rate EET regimes where employee pension contributions were also to attract National Insurance relief (Taxed pension value, £thousands, current earnings terms)[22]

	Regime	Current system	20% flat tax relief	25% flat tax relief	30% flat tax relief	33% flat tax relief
Individual	Age in 2016					
Low earner	20	31.3	31.3	33.3	35.4	36.9
	30	23.9	23.9	25.5	27.3	28.6
	40	16.6	16.6	17.7	19.0	19.9
	50	9.5	9.5	10.1	10.9	11.3
	60	2.5	2.5	2.7	2.9	3.0
Typical earner	20	105.9	105.9	112.7	120.4	125.6
	30	87.9	87.9	93.4	99.8	104.0
	40	63.3	63.3	67.1	71.4	74.4
	50	38.1	38.1	40.6	43.5	45.3
	60	12.5	12.5	13.3	14.3	14.9
High earner	20	206.5	155.9	166.0	177.6	185.4
	30	160.3	121.5	129.3	138.1	144.1
	40	116.1	88.6	94.1	1.4	104.6
	50	73.1	56.3	59.7	63.6	66.2
	60	26.5	19.9	21.2	11.7	23.8

[22] PPI Individual Model

- For a low earner introducing employee NICs relief could result in an increase in taxed pension value of 8.5% in an otherwise comparable system (impact against Table 3.2).
- For a typical earner introducing employee NICs relief could result in an increase in taxed pension value of 6% in an otherwise comparable system (impact against Table 3.2).
- For a high earner introducing employee NICs relief could result in an increase in taxed pension value of 1% in an otherwise comparable system (impact against Table 3.2).

TEE systems with matching payments

Future fund accumulation based upon contributions from 2016 until retirement at State Pension age shows that matching payments can yield a better outcome for those subject to a marginal tax rate of 20%. In the decumulation option considered they are unlikely to have any income tax liability in retirement, and as such the current system is effectively tax exempt. For a high earner a TEE system offers a tax advantage in retirement when they would otherwise expect to pay income tax on pension withdrawals under the current system. However the higher rate of tax relief that they currently attract means that it would require a matching contribution around 50% for them to have a similar outcome, this would come at a significant cost to the Government and a regime whereby this contribution faces a cap of £1,000 in current earnings terms is also considered, Table 3.4.

Table 3.4: The projected accumulation of future pension savings at retirement under the current system and TEE regimes paying a matching contribution (Taxed pension value, £thousands, current earnings terms)[23]

TEE with matching contribution rate:		Current system	0%	20%	25%	30%	50%	50% Capped at £1,000
Profile	Age							
Low earner	20	29.0	23.2	27.8	29.0	30.2	34.8	34.8
	30	22.1	17.6	21.2	22.1	22.9	26.5	26.5
	40	15.3	12.3	14.7	15.3	16.0	18.4	18.4
	50	8.8	7.0	8.4	8.8	9.1	10.5	10.5
	60	2.3	1.9	2.2	2.3	2.4	2.8	2.8
Typical earner	20	1.1	88.3	105.9	110.4	114.8	132.4	128.9
	30	83.1	72.0	86.4	90.0	93.6	108.0	104.5
	40	60.0	49.8	59.7	62.2	64.7	74.7	72.8
	50	35.9	28.7	34.4	35.9	37.3	43.0	42.5
	60	11.8	9.4	11.3	11.8	12.2	14.1	14.1
	20	204.7	138.5	166.2	173.2	180.1	207.8	181.3

[23] PPI Individual Model

High earner	30	159.0	106.4	127.7	133.0	138.4	159.7	139.3
	40	115.2	75.6	90.7	94.5	98.3	113.4	98.9
	50	72.5	45.3	54.4	56.7	58.9	68.0	59.3
	60	26.3	15.8	18.9	19.7	20.5	23.7	20.7

- A low earner is unlikely to be paying income tax in retirement under the modelled profile. As a result a 25% matching contribution generally yields the same outcome, effectively both systems are exempt from tax throughout.
- A high earner stands to lose out at any of the matching contribution rates considered and could be subject to a cap on the contributions under such a system.

National Insurance and employer pension contributions

Under the current system all pension contributions made by the employer are exempt from NICs, however employee contributions are subject to NICs. Within the current system employees may be able to avoid this National Insurance liability by choosing to sacrifice salary for a higher employer pension contribution. The scenario whereby the tax relief is removed is widened to remove NICs relief upon the employer contribution. It is assumed that the cost of the additional NICs is passed on to the employee and as a result the pension contribution is reduced, thereby maintaining the take-home pay of the individual.

The impact of removing NICs relief is dependent upon the proportion of the employer contribution, the marginal rate of NICs, which is lower for a high earner, and the tax liability in decumulation, Table 3.5.

Table 3.5: The projected accumulation of future pension savings at retirement under the current system and TEE regimes paying a matching contribution where employer pension contributions were to no longer attract National Insurance relief (Taxed pension value, £thousands, current earnings terms)[24]

TEE with matching contribution rate:		0%	20%	25%	30%	50%	50% Capped at £1000
Profile	Age						
Low earner	20	21.2	25.5	26.5	27.6	31.8	31.8
	30	16.1	19.4	20.2	21.0	24.2	24.2
	40	11.2	13.5	14.0	14.6	16.8	16.8
	50	6.4	7.7	8.0	8.3	9.6	9.6
	60	1.7	2.0	2.1	2.2	2.5	2.5
Typical earner	20	77.2	92.6	96.5	1.4	115.8	115.4
	30	63.0	75.6	78.7	81.9	94.5	94.0
	40	43.5	52.2	54.4	56.6	65.3	65.3

[24] PPI Individual Model

	50	25.1	30.1	31.4	32.6	37.6	37.6
	60	8.2	9.9	10.3	10.7	12.3	12.3
High earner	20	127.9	153.5	159.9	166.3	191.9	170.7
	30	98.3	117.9	122.8	127.8	147.4	131.1
	40	69.8	83.7	87.2	90.7	104.7	93.1
	50	41.9	50.2	52.3	54.4	62.8	55.8
	60	14.6	17.5	18.2	18.9	21.9	19.4

- For a low earner removing employer NICs relief could result in a decrease in taxed pension value of 8.5% in an otherwise comparable system (impact against Table 3.4).
- For a typical earner removing employer NICs relief could result in a decrease in taxed pension value of 12.5% in an otherwise comparable system (impact against Table 3.4).
- For a high earner removing employer NICs relief could result in a decrease in taxed pension value of 7.5% in an otherwise comparable system (impact against Table 3.4).

Appendix one: the PPI aggregate modelling

For determining the fiscal impacts of different schemes, the PPI's Aggregate Model has been used.

Overview of Aggregate Modelling of Private Pensions

The PPI Aggregate Model links changes in the UK population, the labour market and economic assumptions to project forward private (and state) pension savings. Population projections are taken from 2012-based figures published by the ONS.

Current distributions of individuals across pension scheme types are taken from the Lifetime Labour Market Database (LLMDB) – a panel dataset of 1% of UK National Insurance records. The workforce data includes numbers of individuals and average earnings split by age, gender and earnings band. The data are further split between public and private sector contracted-out schemes and those who are contracted-in to the State Second Pension (S2P).

Initial Conditions

In the base year of projection (2010), individuals with private sector pension arrangements are split between public and private Defined Benefit (DB) schemes and workplace Defined Contribution (DC) schemes. 17.5% of working individuals are assumed to be members of DC workplace pensions and 32.1% of individuals are assumed to be members of DB workplace schemes. 73.2% of those in DB schemes are assumed to work within the public sector, leaving 8.6% of the workforce in private sector workplace DB schemes.

The workforce not initially enrolled in public sector DB, private sector DB or private sector workplace DC, are considered as the eligible population for automatic enrolment. This includes individuals not in workplace pension schemes who contribute to personal pensions.

Stocks of existing assets for DB schemes and workplace DC schemes are split across cohorts by contribution levels. Initial stocks of workplace DB assets were assumed to be £890 billion in the base year. It was assumed that the stocks of DC assets in 2010 were £275 billion.

Movement of individuals between schemes due to decline in DB schemes

The proportion of individuals in each scheme is not stable over time: the proportion of the total workforce who are enrolled in a private sector DB scheme is assumed to decline by 80% between 2010 and 2030 and these individuals are moved into the existing DC workplace schemes.

Movement of individuals between schemes post automatic enrolment

From 2012, employees in the private sector without workplace DC provision are placed in a scheme to represent automatic enrolment, which is split further into master-trust schemes and other DC schemes, assuming 57% are automatically

enrolled into master-trusts and the remaining into other DC schemes. Individuals are enrolled in proportion to the likely number of employees becoming eligible each year due to staging of their employers. Similarly, during the staging period, employees in existing DC schemes who become eligible for automatic enrolment either remain in the existing scheme or are moved to a new automatic enrolment workplace DC scheme (again split into master-trusts and other DC schemes in the same proportions as mentioned above). It is assumed that 80% of existing members remain in their current scheme, and 20% are expected to move to the new automatic enrolment scheme. New members to DC schemes who have an employer with an existing scheme either join the new automatic enrolment scheme (80%) or join an existing DC scheme (20%).

Overall, after 2012 the private sector workforce is assumed to contribute to either private sector DB pension schemes. DC schemes which were existing prior to automatic enrolment. DC which were set up for automatic enrolment, or schemes set up for those that are eligible for automatic enrolment that did not contribute before the implementation of automatic enrolment. It is assumed that 14%[25] of the workforce change jobs from year to year, which causes individuals to shift from existing DC schemes into new DC automatic enrolment schemes over time.

Contributions

Contributions are taken as a percentage of total earnings for employer provided schemes (both existing schemes and those set up after automatic enrolment) and are taken across band earnings for individuals automatically enrolled who previously were not saving. The earning band is taken to be £5,824 to £42,385 with an earnings trigger of £10,000 (all in 2015-16 terms).

When automatically enrolled, individuals and their employers are assumed to contribute at the minimum levels required under automatic enrolment legislation (phased in from a combined contribution of 2% of band salary in 2012, rising to 8% of band salary in 2018 in accordance with existing regulations) unless otherwise stated.

General assumptions

Fund charges are assumed to be 0.75% for existing workplace DC schemes,[26] and 0.5% for Other DC/master-trust schemes set up for automatic enrolment.[27]

Long-term financial and population assumptions are in line with Office of Budget Responsibility (OBR) assumptions. The earnings band for automatic

[25] Average annual workforce churn. DWP (2010)

[26] Average charges for trust-based schemes are 0.71% and for contract-based schemes 0.95%, DWP (2012), and a 0.75% charge cap was introduced for any DC default funds being used for automatic enrolment from April 2015 onwards.

[27] Equivalent Annual Management Charge for multi-employer/Mastertrust schemes such as Legal and General's Worksave, NEST and The People's Pension.

enrolment contributions and minimum salary assumption are assumed to grow with average earnings. These assumptions are consistent with those used across the PPI Modelling Suite and are the result of consultation with the PPI's Modelling Review Board, which consists of a number of experts in the field of financial modelling.

Appendix two: the PPI individual modelling

The project makes use of stylised case study calculations of the impact of current and potential tax relief systems on individual savers.

Example savers

In report we have used three example individuals to explore the distributional consequences of potential reforms. These are:

1. A low earner working 37.5 hours a week on the 2016 National Living Wage of £7.20, giving an annual income of around £14,000, inflated thereafter in line with average earnings.
2. A typical earner on the median income of a full-time worker – £27,440 in 2016 terms – with their earnings following the median earnings profile by age.
3. A higher earner beginning on £60,000 a year – putting them in the top 10% of full-time earners – increasing in line with earnings growth.

It is assumed that these individuals are continuously in employment, with a projected retirement age that rises to 69 by 2048 based upon expected future increases to State Pension age.

Modelling pension contributions

Modelling of the way that tax relief affects outcomes from various savings vehicles was done using consistent assumptions and methodology for each type of savings vehicle.

The calculation assumes contributions are made throughout the individual's working life as a percentage of their net salary, with tax relief or matching contributions being added as applicable. The contributions are then projected forward with investment returns to retirement age at which point the net pension value is calculated. The calculation assumes that the net contribution rate remains constant in any alternative scheme, maintaining the level of take home pay.

For the low earner, the minimum contribution rates under auto-enrolment (rising to 8% of band earnings overall) have been used. For the middle and higher earners, the average rate for those not auto-enrolled (9% of total earnings overall) has been used.

The net value of pension pot at retirement

The individual results present a hypothetical net-of-tax pension value at retirement, expressed in current (2016) earnings terms. This means that the potential income resulting from the pension fund is projected (allowing for a 25% tax free lump sum where appropriate), along with the tax that would be payable on that income. The stream of net income is then collapsed back into a single figure. This can be considered as representative of the fund available to the individual, after taking into account that some of their pension fund will be subject to tax. This figure is called the 'Taxed Pension Value' in the analysis. In

calculating their tax bill, it is assumed that the full State Pension is received and that there is no other source of income besides this and the private pension.

Assumptions

Long-term financial are in line with the Office of Budget Responsibility (OBR) assumptions. The earnings band for automatic enrolment contributions and minimum salary assumption are assumed to grow with average earnings. These assumptions are consistent with those used across the PPI modelling suite and are the result of consultation with the PPI's Modelling Review Board, which consists of a number of experts in the field of financial modelling.

Appendix three: extended modelling results

Further to the tables presented in the body of the report the more extensive modelling results have also been prepared including more results for all years of projection.

Table A3.1: The projected cost of EET pension tax relief systems at varying level of relief, where the marginal rate is the current system of pensions tax relief (£billions, current earnings terms)[28]

Relief	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Marginal	28.9	28.6	27.6	28.1	26.8	27.3	29.9	30.1	30.0	29.3
20%	-	-	-	-	-	18.1	20.6	20.7	20.7	20.2
25%	-	-	-	-	-	22.8	26.2	26.4	26.3	25.7
30%	-	-	-	-	-	27.7	32.0	32.2	32.2	31.5
33%	-	-	-	-	-	30.7	35.6	35.9	35.8	35.1

Relief	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Marginal	29.7	28.9	28.3	26.4	25.0	23.8	23.1	22.5	21.6	21.5
20%	20.4	19.9	19.5	18.2	17.2	16.5	16.0	15.5	15.0	14.9
25%	26.0	25.4	24.9	23.3	22.1	21.1	20.5	19.9	19.2	19.1
30%	31.9	31.1	30.5	28.6	27.1	26.0	25.2	24.6	23.7	23.6
33%	35.6	34.7	34.1	32.0	30.4	29.1	28.3	27.5	26.6	26.5

Relief	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Marginal	21.3	21.4	21.4	21.0	21.4	21.0	21.3	21.1	21.2	21.3
20%	14.7	14.8	14.8	14.6	14.8	14.5	14.7	14.6	14.7	14.7
25%	18.9	19.0	19.0	18.7	19.0	18.6	18.9	18.8	18.9	18.9
30%	23.3	23.4	23.3	22.9	23.2	22.8	23.1	23.0	23.1	23.1
33%	26.1	26.2	26.2	25.7	26.0	25.6	26.0	25.8	25.9	26.0

Relief	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Marginal	21.4	21.9	22.1	22.3	22.8	22.8	23.4	24.0	24.5	24.6
20%	14.8	15.2	15.3	15.4	15.8	15.8	16.2	16.6	17.0	17.0
25%	19.0	19.5	19.7	19.8	20.3	20.4	20.9	21.3	21.8	21.9
30%	23.2	23.8	24.0	24.1	24.7	24.8	25.4	25.9	26.5	26.6
33%	26.1	26.7	26.9	27.1	27.7	27.8	28.5	29.1	29.8	29.9

[28] PPI Aggregate Model

Table A3.2: The projected income tax stream on pension withdrawals, the EET system is the current pension system (£billions, current earnings terms)[29]

System	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
EET	12.4	13.1	13.4	14.0	15.1	15.6	16.2	16.7	17.2	17.5
TEE	-	-	-	-	-	15.6	16.1	16.7	17.1	17.3
Impact	-	-	-	-	-	0%	0%	0%	-1%	-1%

System	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EET	17.8	18.1	18.6	18.5	18.5	18.5	18.2	18.0	17.9	17.9
TEE	17.5	17.8	18.1	17.9	17.8	17.7	17.3	17.0	16.7	16.6
Impact	-1%	-2%	-3%	-3%	-4%	-5%	-5%	-6%	-7%	-7%

System	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
EET	17.9	18.0	18.2	18.4	18.7	18.9	19.2	19.4	19.6	19.8
TEE	16.4	16.3	16.3	16.2	16.1	16.1	16.0	15.9	15.8	15.7
Impact	-8%	-10%	-11%	-12%	-14%	-15%	-17%	-18%	-19%	-21%

System	2041	2042	2043	2044	2045	2046	2047	2048	2049	2040
EET	20.0	20.3	20.6	20.9	20.7	20.8	21.0	21.4	22.1	22.9
TEE	15.5	15.4	15.3	15.2	14.8	14.6	14.4	14.2	14.2	14.1
Impact	-22%	-24%	-26%	-27%	-29%	-30%	-32%	-33%	-36%	-38%

[29] PPI Aggregate Model

Table A3.3: The projected cost of the current tax relief and alternative matching contributions on a TEE pension system of varying levels (£billions, current earnings terms)[30]

System	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Current	28.9	28.6	27.6	28.1	26.8	27.3	29.9	30.1	30.0	29.3
TEE 0%	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0
TEE 20%	-	-	-	-	-	15.0	17.0	17.1	17.0	16.7
TEE 25%	-	-	-	-	-	18.1	20.6	20.7	20.7	20.2
TEE 30%	-	-	-	-	-	21.0	24.0	24.2	24.1	23.6
TEE 50%	-	-	-	-	-	31.0	36.0	36.3	36.2	35.5

System	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Current	29.7	28.9	28.3	26.4	25.0	23.8	23.1	22.5	21.6	21.5
TEE 0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TEE 20%	16.8	16.4	16.0	15.0	14.2	13.5	13.1	12.8	12.3	12.2
TEE 25%	20.4	19.9	19.5	18.2	17.2	16.5	16.0	15.5	15.0	14.9
TEE 30%	23.8	23.2	22.8	21.3	20.2	19.3	18.7	18.2	17.5	17.5
TEE 50%	36.0	35.2	34.5	32.4	30.7	29.5	28.6	27.9	26.9	26.8

System	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Current	21.3	21.4	21.4	21.0	21.4	21.0	21.3	21.1	21.2	21.3
TEE 0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TEE 20%	12.1	12.2	12.2	11.9	12.1	11.9	12.1	12.0	12.1	12.1
TEE 25%	14.7	14.8	14.8	14.6	14.8	14.5	14.8	14.6	14.7	14.8
TEE 30%	17.3	17.4	17.3	17.0	17.3	17.0	17.2	17.1	17.2	17.2
TEE 50%	26.5	26.7	26.7	26.3	26.6	26.2	26.6	26.5	26.6	26.7

System	2041	2042	2043	2044	2045	2046	2047	2048	2049	2040
Current	21.4	21.9	22.1	22.3	22.8	22.8	23.4	24.0	24.5	24.6
TEE 0%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TEE 20%	12.2	12.5	12.6	12.7	13.0	13.0	13.3	13.6	14.0	14.0
TEE 25%	14.8	15.2	15.4	15.4	15.8	15.9	16.3	16.6	17.0	17.1
TEE 30%	17.3	17.7	17.9	18.0	18.4	18.5	18.9	19.3	19.8	19.9
TEE 50%	26.8	27.5	27.8	28.0	28.6	28.8	29.5	30.2	30.9	31.1

[30] PPI Aggregate Model

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