

Embargoed until
3.30pm 15th July 2013

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Tax relief for
pension saving
in the UK

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Published by the Pensions Policy Institute

© July 2013

ISBN 978-1-906284-28-6

www.pensionspolicyinstitute.org.uk

Tax relief for pension saving in the UK

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Executive Summary

Tax incentives are seen as a means to encourage pension saving amid concerns that people are not saving enough for retirement. Pension saving attracts a level of tax relief that compares favourably with other types of saving. However, there are concerns that tax relief is expensive, poorly targeted and does not achieve its policy objectives.

This report provides an overview of the pension tax relief system and examines the rationale for tax relief. It also considers the extent to which tax relief incentivises pension saving and considers some alternatives to the current system, including adjustments to the current framework of the tax relief system, changes to the tax-free lump sum, and using single rates of tax relief rather than relief given at the saver's marginal rate.

Rationale for tax relief

The main objective for tax relief on pensions is to support retirement saving by encouraging individuals to save for their retirement and employers to contribute to pension schemes. In this way, tax relief looks to compensate people for the fact that they cannot access their money before a particular date and, when they are able to access this money, it must be accessed in a particular way (for instance, they must take it as an annuity or via a Capped Drawdown arrangement). Tax relief also aims to make the tax system for pension saving neutral by ensuring that people do not pay tax twice on the same income; however, while this is an objective, it is secondary to supporting retirement savings.

The current pension tax relief system

The UK pension tax system is based on an EET system; the principle of contributions being Exempt from tax, investment returns being Exempt from tax and withdrawals from pension being Taxed. However, in practice, the UK system is best referred to as Eet. Contributions (subject to limits) are exempt from tax. Investment growth and income within the pension fund are exempt from tax with the exception that tax on equities at the Corporation Tax rate has been paid and cannot be reclaimed. Pension payments are taxed at the individual's marginal tax rate, apart from tax-free lump sums of up to 25% of the fund.

Limits to tax relief include the Annual Allowance and the Lifetime Allowance. These are currently set at £50,000 and £1.5 million respectively, and will be reduced to £40,000 and £1.25 million respectively from 2014/15.

In addition, where employers pay a proportion of an employee's salary as pension contributions, National Insurance contributions are not payable on this. However, National Insurance contributions are not considered as part of this report.

Is the tax relief system tax neutral?

The tax treatment of pensions in the UK is more tax-advantaged for individuals than that other savings, including ISAs (which are sometimes described as tax neutral). Pension saving in the UK is therefore tax advantaged. An important tax advantage accrues from the fact that it is possible to withdraw a tax-free lump sum of up to 25% of the pension value.

Based on a £1,000 contribution invested from age 40 to age 67, non-taxpayers, basic rate taxpayers and higher rate taxpayers could all receive more from a pension than an ISA, where the only difference between the two products is the tax treatment. The tax advantage of pension saving is higher for higher rate taxpayers than basic rate taxpayers as they would have had to pay tax at the higher rate on the tax-free lump sum. But the largest tax advantage is received by individuals who pay higher rate tax when working, but only pay tax rate tax when retired. This is because their pension contributions attract tax relief at the higher rate but they only pay tax at the basic rate when they receive their pension payments.

The current cost of tax relief

The net cost of tax relief was estimated to be £23.7 billion in the 2010/11 tax year. This cost includes tax relief paid on employees' and employers' contributions to pension schemes (£22.7 billion), as well as tax relief on contributions to personal schemes (£5.8 billion). Tax relief paid on investment returns (£6.5 billion) is added to this while tax liable on pension payments, as they are paid out (£11.3 billion), is offset against tax relief given, to reach the net tax relief cost. This figure does not take into account the changes to the Annual Allowance and the Lifetime Allowance announced which took place from the 2011/12 tax year where the Annual Allowance was reduced from £255,000 to £50,000.

The introduction of auto-enrolment will increase the numbers of lower earners saving into pensions. However, even after automatic enrolment has been fully phased in, the distribution of tax relief will benefit higher rate taxpayers more than basic rate taxpayers. PPI estimates suggest that, while basic rate taxpayers are estimated to make 50% of the total pension contributions, they would benefit from only 30% of pension tax relief. In contrast, 50% pension tax relief goes to higher rate taxpayers and 20% goes to additional rate taxpayers, while these groups make 40% and 10% of the total contributions respectively.

Does the pension tax relief system work?

Individuals gain a tax advantage from pension saving if they receive pension tax relief at a higher rate than the tax rate on their income in retirement. It is difficult to know how many people benefit in this way. However, in 2010/11, higher rate tax was paid by around 2 million (10%) taxpayers whose largest source of income was from employment and by around 200,000 (4%) of taxpayers whose large source of income was from a pension. The percentage of people paying higher rate tax has been increasing, and in future more

individuals are likely to pay higher rate tax both while working and in retirement as the income threshold above which higher rate tax is payable has been falling relative to average earnings. PPI calculations suggest that the proportion of pensioners paying higher rate tax could increase to around 9% of pensioners by 2026, assuming that thresholds are increased broadly in line with prices.

There is limited evidence around the effectiveness of tax incentives in encouraging pension saving. However, such evidence as there is suggests that tax relief is not very effective in incentivising saving.

Reasons for this ineffectiveness related directly to the tax relief system include:

- Understanding around the tax treatment of pensions is low, something that is likely to dilute its effectiveness as an incentive to save.
- Tax incentives on pensions have redirected more money from other savings into pensions rather than incentivising saving overall. One reason for this is that tax relief does not match its target groups as higher earners, who may be more likely to save, are more likely to respond to incentives.
- There remains a 'Savings Gap', the difference between the amount people need to save to achieve a reasonable retirement income and the amount they are actually saving. This may not in itself mean that pension tax relief has not incentivised pension saving; however it does mean that it has not incentivised pension saving to the extent that individuals save enough for their retirement.

There are some general barriers to pensions saving such as:

- People have insufficient income to make pension savings.
- Lack of understanding around pensions.
- Issues related to the current design and delivery of pensions; for instance, pension schemes themselves are unattractive to some people, particularly people with low incomes.

The current system of tax relief has not overcome these barriers.

The report considers three different aspects of tax relief that have been recently changed or where reforms have been suggested:

- Recent adjustments to the current system
- Restrictions to the tax-free lump sum
- Single rate of tax relief

Recent adjustments to the current system

Recent changes to the system include restrictions to the Annual Allowance (from £50,000 to £40,000) and the Lifetime Allowance from (£1.5 million to £1.25 million). If contributions, or the real increase in the value of pension rights, exceed the Annual Allowance, the excess is subject to tax at the individual's marginal tax rate. Unused Annual Allowance from the three previous years can be carried forward and added to the Annual Allowance. If the individual's pension savings exceed the Lifetime Allowance tax is paid on the excess at the 25% rate if the excess is taken as an annuity and at the 55% rate if the excess is taken as a lump sum.

The reforms will affect members of Defined Benefit schemes and Defined Contribution schemes differently. After allowing for carry-forward, an individual who earns £40,000 with 20 years of service in a Defined Benefit pension scheme would need a 49% pay increase to breach the Annual Allowance. In contrast, without the carry-forward provision, the same individual would need just a 15% pay increase to breach the allowance. An individual in the same scheme who earns £120,000 with 20 years of service would need just a 3% pay increase to breach the allowance. This is not significantly changed by the carry-forward provisions, as the individual is likely to have little unused Annual Allowance to carry forward. In this way, the carry-forward provision significantly reduces the level of pay rise that would lead an individual to exceed the Annual Allowance. Overall the change to the Annual Allowance is most likely to affect high earners and may affect moderate earners with long service histories, with the carry forward provisions limiting the impact on lower earners.

An individual who is a member of a Defined Contribution scheme may decide to cap their contributions in order to avoid paying a tax change. In turn this will limit the value of their pension fund and their income in retirement.

While these changes will reduce the cost of tax relief and reduce the value of tax relief available, they will not improve the incentives for anyone to contribute to a pension.

Restrictions to the 25% tax-free lump sum

Currently individuals are able to take a tax-free lump sum up to the value of 25% of their pension fund. Under the current system, 77% of individuals have a lump sum of under £40,000 while only 24% of the tax on lump sums goes to these individuals. Similarly, while 2% of lump sums are worth £150,000 or more, they attract 32% of tax relief on lump sums. The projected cost of this tax relief on lump sums is £4 billion.

The report considers two potential restrictions to the tax-free lump sum. The figures below do not take into account any possible behavioural change, in that individuals are assumed to take their full lump sum entitlement in all scenarios.

If the tax-free portion of the lump sum were limited to 20% of the pension fund, the reduction in tax relief received would be proportionately the same for all individuals. In practice, any change would be likely to only apply to future contributions, so initial savings would be small and take a number of years to build up. If such a change were applied to current lump sums the cost of tax relief could decrease from £4 billion to £3.5 billion.

An alternative approach would be to cap the size of lump sums that are available tax-free. For example, a cap of £36,000 would mean that 75% of current lump sums would be unaffected but the largest 25% of lump sums would be capped. Again, this is most likely to be applied to new pension contributions so would not make significant savings for many years.

If tax relief were limited to the first £36,000 of the current tax-free lump sums, the proportion of tax relief going to lump sums of £150,000 and over would reduce from 32% to 7%. The cost of tax relief on lump sums could halve to £2 billion. In practice individuals may choose to take larger amounts of the pension fund as an annuity, which would reduce the tax foregone on the lump sum but increase the amount of tax on pension income.

Like the recent changes to tax relief, these changes to the lump sum would mean that pension tax relief is more evenly distributed and reduces the cost of tax relief; however they will not improve incentives for anyone to contribute to a pension, and will reduce the value of tax relief.

Single rate of tax relief

The estimated cost of tax relief on pension contributions from employers, employees and individuals, allowing for the full introduction of automatic enrolment, under the current tax system, is around £35 billion.

Compared to the current cost of tax relief on contributions for employers, employees and individuals of £35 billion, and assuming no change in pension contributions, a single rate of tax relief at the basic rate of income tax on employers', employees' and individuals' contributions could cost £22 billion, a single rate at 30% could cost £35 billion and a single rate at the higher rate of income tax could cost £50 billion. The distribution of tax relief would be more equitable under a single rate of tax relief, with 50% of tax relief going to higher and additional rate taxpayers compared to 70% in the current system, assuming no change in contributions.

The gains and losses from a single rate of tax relief on pension contributions will depend on the single rate used. Higher rate taxpayers would lose out relative to the current system if a single rate of tax relief were set at the basic rate. Low and mid-range earners would benefit while higher rate taxpayers would lose out from a single of tax relief set at 30%. Low and mid-range earners would benefit from a single rate of tax relief set at the higher rate.

A single rate at the basic rate of income tax would mean that higher rate taxpayers face a tax disadvantage unless they pay basic rate tax in retirement. However, the 25% tax-free lump sum means that a single rate at 30% would be broadly tax-neutral for higher rate taxpayers.

A single rate of pension tax relief may be more difficult to understand than the current system. However, if tax relief were presented as matching contributions this may be easier to understand.

While it is relatively straightforward to give tax relief at an individual's marginal rate, it is more difficult to give tax relief at a single rate. It would be difficult to operate Net Pay Arrangements with a single rate of tax relief. In such cases employers could use alternate arrangements, which might require them to make changes to their payroll software. Alternately a compensatory mechanism could be used, for instance changes to the employee's PAYE code or the requirement for them to pay or claim back outstanding tax through the Self-Assessment system.

It would also be more difficult to implement for Defined Benefit pensions. In a Defined Benefit scheme, contributions are paid by the employer and employee into a common fund, which is invested to provide all retirement benefits. In the current system, unless there is a risk of the deemed contribution – an estimate of the increase in the individual's Defined Benefit pension entitlement in the previous year – for an individual exceeding the Annual Allowance the deemed contribution is not calculated. A single rate would require the employer to calculate the deemed contribution for a larger number of employees. As the deemed contribution is based on the increase in value of the fund, the deemed contribution and the extra tax may not bear any resemblance to the employer's and employee's contributions made on behalf of that employee. As such, this system may not appear transparent to pension savers, and could reduce the attractiveness of pension saving to employers and employees if they face higher income tax payments and more complexity.

One objective of tax relief is to incentivise saving. If single rate of tax relief were introduced behaviour might change in a number of ways:

- As the Government contribution to pensions changes, the rate of return on individual's own pension contributions will change; this could lead to individuals changing their behaviour.
- It may affect perceptions and ease of use of the pension tax relief system. This may affect individual's interaction with the system (for instance, if they are required to pay extra tax at the end of the year).
- It may affect employers through administrative complexity and cost, and indirectly through their employees' perception of value of pensions.

Restriction of tax relief to the basic rate or to 30% may lead those people who currently receive higher rate tax relief to divert their savings from pensions. A single rate of 30% may incentivise lower and middle earners to make more

pension saving. The introduction of a higher single rate of tax relief may incentivise lower and middle earners to make more pension saving.

It is possible, using existing research, to estimate how individuals may respond to changes in the rate of return on their pension saving. However, there is little evidence as to how individuals and employers might react to broader changes in tax relief on pension contributions.

The outcomes of the introduction of the single rate of tax relief could be different if, for instance, people reacted to a greater extent to the changes in tax relief, and if individuals and employers responded differently to the way in which the tax relief system operates. A range of different assumptions has therefore been used to give an indication of how much behaviour would need to change to have a substantial impact on the overall levels of tax relief on pension contributions above the direct impact.

The results provide an overview of the potential impact of pensions tax reforms on the distribution and cost of tax relief.

- If the single rate were set at the basic rate of income tax the cost could decrease from £35 billion to between £19 and £22 billion. Under this option the tax relief going to higher and additional rate taxpayers would decrease from 70% to between 45% and 50%.
- If the single rate were set at 30% the cost of pension tax relief could decrease from £35 billion to between £34 billion and £35 billion. Under this option the tax relief going to higher and additional rate taxpayers would decrease from 70% to between 45% and 50%.
- If the single rate were set at the higher rate of income tax the cost could increase from £35 billion to between £50 billion and £57 billion. Under this option the tax relief going to higher and additional rate taxpayers would decrease from 70% to between 45% and 50%.

However, these projections are driven by assumptions as well as data and, as a consequence, the analysis does not provide detailed specific forecasts, but rather projections of broad orders of magnitude under different scenarios.

Introduction

Saving into a pension scheme represents a long-term and potentially risky financial commitment. At the same time an adequate level of private pension savings is important in terms of improving individuals' future wellbeing and in ensuring the sustainability of the pension system.

Even after the introduction of auto-enrolment, payment into a private pension remains voluntary and there are concerns that people are not saving enough for their retirement. In this context, tax relief is seen as a means to encourage pension saving, which offers a level of incentive that compares favourably with other types of savings. However, there are concerns that this tax relief is expensive, poorly targeted, and does not achieve its policy objectives. Equally, there are concerns that continual changes to pension tax relief could undermine pension saving.

This paper considers the role of tax relief against a background of evolution of the UK pensions system. There is a consensus that state pensions will not be sufficient to provide an adequate income to many people in retirement, and private saving will be required to make up the shortfall. At the same time the number of people contributing to private pensions has been falling. The introduction of auto-enrolment is designed to reverse this trend. However, while auto-enrolment is likely to lead to additional pension saving, by itself, it will not make up the total shortfall in pension saving.

Despite this, there have been recent cuts in the level of pension tax relief, to limit the amount of relief received available to higher earners, including reductions of both the Annual and Lifetime Allowances.

This report considers why we have tax relief on pension saving, how it works, whether it meets current objectives and whether some alternatives might better meet these objectives.

The first chapter considers the rationale for tax relief and provides an overview of the current system of tax relief on pensions and the cost of the current system. It also considers who benefits most from tax relief.

The second chapter examines the extent to which tax relief incentivises pension saving.

The third chapter goes on to consider some alternatives to the current system, and examines the implications of recent adjustments to the current framework of tax relief.

The fourth chapter considers changes to the tax-free lump sum while the fifth chapter considers using single rates of tax relief rather than relief given at the marginal tax rate.

Chapter 1: current system of pension tax relief

This chapter considers the rationale for tax relief, provides an overview of the current system of tax relief on pensions, and examines the cost of the current system. It also considers who benefits from tax relief.

The rationale for pension tax relief

There are two main reasons why tax relief is given on pension saving:

- Tax incentives are used to support retirement saving by encouraging individuals to save for their retirement and employers to contribute to pension schemes. The ultimate objective is to ensure that people have enough money to live on once they have retired, limiting the extent to which they rely on the state in retirement. In this way, tax relief looks to compensate people for the fact that they cannot access their money before a particular date and, when they are able to access this money, it must be accessed in a particular way (for instance, they must take it as an annuity or via a Capped Drawdown arrangement).
- Tax relief is also designed to help people defer consumption by ensuring that people do not pay tax twice on the same income if they save it to spend in the future; e.g. at the point where they earn the income and when they receive the income in retirement. This centres on the avoidance of double taxation. This is sometimes called a “tax neutral” system, as it is neutral between spending and saving. While this is an objective, it can be seen as secondary to supporting retirement savings.

These two reasons are not mutually exclusive and are, in some cases, complementary – avoiding double taxation may also incentivise pension saving over other forms of saving. However, the relative importance given to each of these reasons can lead to different conclusions about the best structure for tax relief. An emphasis on avoiding double taxation means that high earning individuals with high marginal tax rates can receive large amounts of tax relief. However, an emphasis on incentivising pension saving to ensure adequacy of retirement income might suggest that limiting relief to high earners (who are more likely to save in the absence of incentives) and targeting incentives on low income individuals could be the most beneficial approach in the long-run.

How does pension tax relief work in the UK?

The regime for tax relief for private pensions has evolved over recent years, but the main principles of tax relief have remained the same.

There are three stages of pension scheme saving where tax could be payable or relieved. These are:

1. Contributions to the pension scheme
2. Investment returns on the subsequent pension fund
3. Payments out of the pension scheme

The UK has broadly adopted what is known as an EET system; the principle of contributions being Exempt from tax, investment returns being Exempt from tax, and withdrawal from pensions being Taxed. If a pure EET approach were in place in the UK, this would allow for the following:

Stage 1- Contributions

Contributions made by the individual to be paid from gross pay and not subject to income tax. Contributions paid by the employer would also be free of income tax.

Stage 2 - Investment

Growth and income within the pension fund to be free of capital gains tax (CGT) and income tax.

Stage 3 - Payment

Benefits to those taking retirement income from a private pension to be taxed at the individual's marginal rate of income tax.

In practice, in the current UK system of pension tax relief there are some variations to the application of the EET approach as follows:

In the investment stage, where the investment returns on the fund are equity dividends, tax at the Corporation Tax rate has been paid on these and cannot be reclaimed by the pension fund.

In the payment stage, up to 25% of the pension fund can be taken in the form of a lump sum which is exempt from tax.

For these reasons, today's system is better referred to as **Eet**, with the second two letters in lower case to reflect the taxation of some investment returns at the second stage and the opportunity to access tax-free benefits at the third stage.

Tax relief is generally at the individual's marginal tax rate; however, even where someone does not have income high enough to pay tax they can benefit from basic rate tax relief on payments up to £2,880 a year.

Tax relief is limited in the UK

There are limits in place to tax relief on pensions. These restrict the amount of relieved pension that can be built up every year and the total value of the pension at retirement. These are known as the Annual Allowance and the Lifetime Allowance respectively. Both of these have been reduced significantly in recent years.

Annual Allowance

If the individual's and employer's contributions (for Defined Contribution pension schemes), or the real increase in the value of the pension rights (for Defined Benefit pension schemes – see Box 1), exceed the Annual Allowance,

then the excess is subject to a tax charge at the individual's marginal tax rate. The Annual Allowance is set at £50,000 for the 2012/13 tax year, this is the same as it was in the 2010/11 tax year, having been reduced from £255,000 in the 2011/12 tax year. Unused Annual Allowance from the three previous tax years can be carried forward and added to the Annual Allowance. It was confirmed in the Budget 2013 that the Annual Allowance will be reduced from £50,000 to £40,000 from 2014/15 onwards.

The Lifetime Allowance

The Lifetime Allowance limits the amount of pension saving that can be built up over the course of an individual's life for tax relief purposes. This is usually assessed when a pension comes into payment. If the value of the pension benefit at retirement is over the Lifetime Allowance then tax is due on the portion over the Lifetime Allowance. The Lifetime Allowance was set at £1.5 million for the 2012/13 tax year; this was reduced from £1.8 million for the 2011/12 tax year. If an individual's pension savings exceed the Lifetime Allowance then tax is payable at the 25% rate on the excess if it is taken as an annuity (on which income tax is then payable at the individual's marginal rate) and at the 55% rate if it is taken as a lump sum (which is then payable tax-free). It was confirmed in the Budget 2013 that this will be reduced from £1.5 million to £1.25 million from 2014-15 onwards.¹

Both the Annual and Lifetime Allowances have been reduced incrementally and the impact of these reductions is not yet known. However, HM Revenue and Customs estimate that 140,000 individuals are expected to be affected by the reduction in the Annual Allowance to £40,000 while the reduction in the Lifetime Allowance to £1.25 million could potentially affect around 360,000 individuals.²

While, in theory, the UK pension tax relief system allows taxation to be smoothed over a lifetime, there are some irregularities in the pension system. These arise mainly from timing issues and fiscal policy. Over their lifetime individuals are likely to experience changes to levels of their own personal income and government changes to allowances and tax rates. However, many people are likely to experience lower incomes and tax rates in retirement than in their working lives. For example, some individuals will move from being higher rate taxpayers at some point during their working lives to basic rate taxpayers in retirement.

¹ Protection exists to allow individuals who would have built up pension saving in excess of the Lifetime Allowance at the time it was introduced to avoid tax charges. More information is available at www.hmrc.gov.uk/pensionschemes/pension-savings-la.htm#1

² HMRC (2013)

Box 1: How does pension tax relief work in practice?

Tax relief on pension contributions varies depending on whether contributions are paid from gross or net pay, and on whether the pension is Defined Benefit or Defined Contribution.

Contributions from gross pay and net pay

Contributions paid on gross pay reduce the taxable income of an employee. They therefore implicitly attract tax relief at the employee's marginal rate. Pension schemes that receive employer contributions, including all Defined Benefit schemes, tend to be set up in this way.

Pension schemes that receive contributions from post-tax pay, such as personal pensions, are also eligible for tax relief but it is through a more explicit process. The pension fund will claim tax relief on all contributions at the basic rate from the government. Further tax relief for higher and additional rate taxpayers must be reclaimed by the individual in a tax return.

DB and DC treatment of tax relief

Under a Defined Contribution pension scheme the employee and any employer contributions are made into a pot allocated to the individual, therefore the amount of the contribution relating to any individual is clear. However, for a Defined Benefit pension scheme the contributions made reflect the average cost of funding the benefits accruing across the scheme. It is therefore difficult to say that the contributions of an employee and employer in respect of a particular member represent the true increase in the value of the pension of that particular member.

This does not matter too much for a Defined Benefit pension scheme where tax relief is given on all contributions from pre-tax pay at the marginal rate. In that case the lack of a tax charge implicitly means that marginal rate relief was applied. A problem arises, however, if tax relief is limited or at a rate different to the marginal rate; in that case the value of each individual's benefit increase must be assessed.

This problem currently occurs when assessing a DB pension scheme member against the Annual Allowance which caps the annual amount of pension growth that is eligible for tax relief. To address this problem the concept of the Deemed Contribution was developed. The Deemed Contribution converts the increase in pension value over the year into a capitalised value. It measures the growth in value of the pension built up in a Defined Benefit pension scheme allowing for another year of benefit having accrued and the impact of any real pay increase on the benefits already accrued, then multiplies that value by a factor which allows for the fact that the calculated increase in the accrued pension is on a future series of payments. The Deemed Contribution is then compared to the Annual Allowance (after carry-forward of the Annual Allowance from the previous 3 years) and any Deemed Contribution above the Annual Allowance is taxed at the individual's marginal rate.

The impact of the UK pension tax system varies between individuals

The UK pension tax relief system can be shown to avoid double taxation and also to provide an incentive to save in a pension.

The pension tax system enables individuals to benefit from the smoothing of taxation over their lifetime. While their contributions and returns on their investment are largely tax-free, the state reclaims the tax foregone through the taxation of part of private pension income (after allowing for the 25% tax-free lump sum), though this is sometimes at a lower rate of taxation. This regime means that, relative to other types of saving such as ISAs, high levels of financial benefit can accrue to the individual through tax relief on pension contributions.

The following analysis shows the impact of the current tax relief system on the amount of pension tax relief received by four different types of taxpayer:

- A non-taxpayer
- A basic rate taxpayer
- An individual who pays higher rate tax both during their working life and in retirement
- An individual who pays higher rate tax during their working life and basic rate tax in retirement

Calculations are based on a payment of £1,000 into a pension by an individual aged 40 which remains invested until state pension age, assumed to be 67 in line with current legislation.

These calculations compare the amount that would be received if the same contribution were paid into a pension, into an ISA and into a normal savings account. Where someone pays into an ISA, their contributions are made out of taxed income and subsequently any growth in the fund and income withdrawn from the fund is exempt from tax. In theory this is known as a TEE regime, although in the UK as in the pension tax relief system, the investment stage is not completely exempt from taxation and is best described as TeE. In contrast, it is assumed in these calculations that any growth or income in a normal savings account is fully taxed – this is known as a TTE regime.

To isolate the impact of tax relief, it is assumed that both the ISA and the savings account would achieve the same investment return before tax as the pension fund. For simplicity the middle ‘e’ in both the ISA and the pension has been treated as ‘E’; investment returns are assumed to be free of tax. This does not affect the relative difference between the different types of saving.

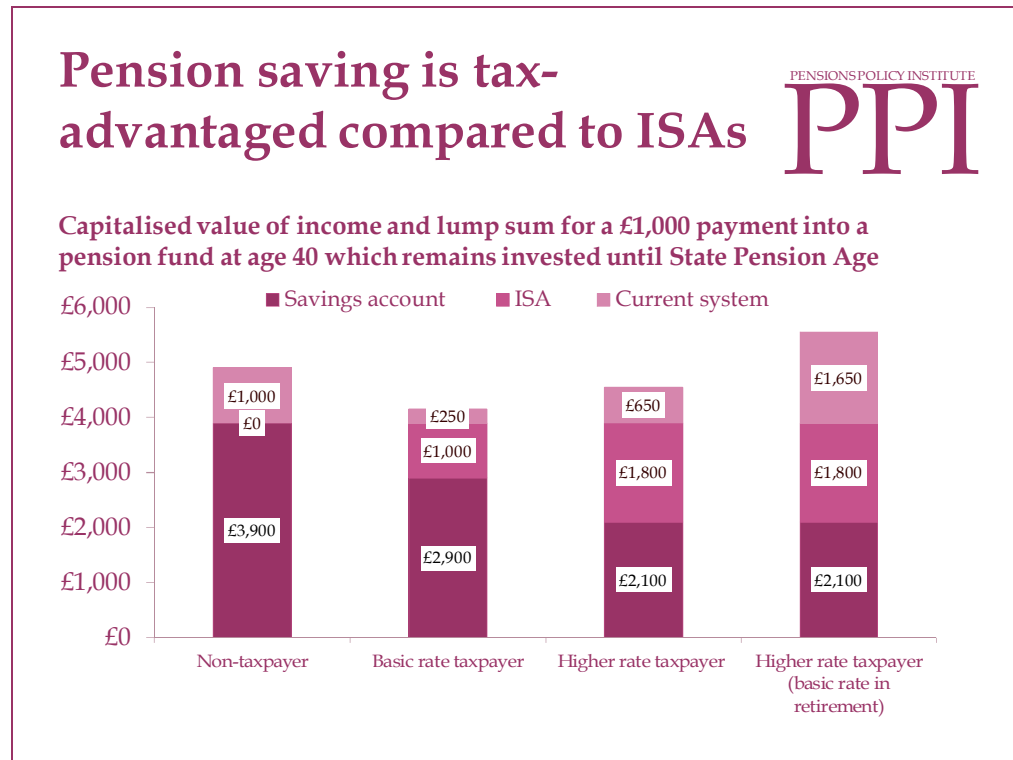
A TEE regime, such as an ISA, is often used to describe a tax-neutral system, in that it avoids double taxation.³ Therefore, where the UK pension tax relief

³ IFS (2011)

system provides a better outcome than an ISA, this is tax beneficial rather than tax neutral.

Chart 1 shows what each type of taxpayer would receive, net of tax, under different regimes.

Chart 1⁴



Normal savings account

If the £1,000 payment is paid into a savings account, of all of the groups of individuals, non-taxpayers and basic rate taxpayers would receive the largest capitalised value. This is because non-taxpayers do not pay tax on any interest from a normal savings account and a basic rate taxpayer pays tax at 20%. While non-taxpayers would receive £3,900, basic rate taxpayers would receive £2,900 and higher rate taxpayers would receive £2,100 irrespective of their tax rate in retirement.

ISA

In contrast, all individuals would achieve the same capitalised value of £3,900 under the tax neutral ISA regime. This is because interest on an ISA is tax-free for all types of taxpayers.

⁴ Based on a one-off payment of £1,000, a nominal rate of return of 6% per annum and an Annual Management Charge of 0.77%. Further information is available at Annex 2.

Pensions

Both taxpayers, regardless of their marginal tax rate, and non-taxpayers benefit from the current system relative to ISAs and savings accounts. Non-taxpayers benefit from the current system because they can receive basic rate tax relief on contributions of up to £2,880 per year. The capitalised value of the pension to the non-taxpayer is £4,900, which is £1,000 (34%) higher than the ISA. For taxpayers, the main tax advantage of a pension compared to an ISA comes from the tax-free lump sum. This is higher for higher rate taxpayers than for basic rate taxpayers, as they would have had to pay tax at the higher rate if the lump sum were taxable. The capitalised value of the pension to the basic rate taxpayer is £4,150, which is £250 (6%) higher than the ISA. The capitalised value of the pension to the higher rate taxpayer is £4,550, which is £650 (17%) higher than the ISA.

A further advantage exists for the individual who pays higher rate tax when working, but is a basic rate taxpayer in retirement. This is because they receive relief on contributions at the higher rate of tax, but only pay tax at the basic rate. The capitalised value of the pension to this taxpayer is £5,550, £1,650 (42%) higher than the ISA.

As such, the current distribution of tax relief benefits higher rate taxpayers more than basic rate taxpayers, particularly those people who pay higher rate tax during at least part of their working lives, benefitting from higher rate tax relief, and go on to pay basic rate tax in retirement.

An important tax advantage accrues from the fact that it is possible to withdraw a tax-free lump sum of up to 25% of the pension value. While there are no specific figures regarding the uptake of this option and use of lump sums, research suggests that around 80% of those drawing a company or private pension in 2011 took a lump sum from their fund at retirement⁵. Of these people, over half of those who took a lump sum put some of the money in a savings account, while just over a quarter invested in stocks, shares or investment trusts.⁶ Other reported uses of tax-free lump sums include paying off mortgages or other debts.⁷

How much does pension tax relief cost?

Tax relief has a cost and there are different ways to estimate this cost. One way of calculating the cost is the 'present value' approach. This calculates the cost over the lifetime of individuals, taking into account the amount paid out in relief on contributions, relief on investment income and tax paid on pensions in payment over individuals' lifetimes. However, this cost can be hard to measure or project, as it depends on individual decisions as well as changing tax rates and systems.

⁵ www.pru.co.uk/pdf/presscenter/ret_inc_worries_lump_sum_regrets.pdf

⁶ www.pru.co.uk/pdf/presscenter/ret_inc_worries_lump_sum_regrets.pdf

⁷ www.scottishwidows.co.uk/documents/generic/2008_grandparents_travel_delayed_debt.pdf

HM Revenue and Customs (HMRC) uses a cash flow approach to estimate the annual amount of tax revenue foregone because of pension tax relief on private pension contributions by employers, employees, and the self-employed.

The figure for tax relief used in this report is based on data collected for the 2010/11 tax year and, therefore, does not take into account the restriction of the Annual Allowance from £255,000 to £50,000.

In 2010/11 the cost of tax relief amounted to £28.5 billion (table 1). In addition, relief given on investment returns is estimated to cost another £6.5 billion, bringing the total gross cost of pension tax relief to £35 billion.

Offset against this amount is the amount of tax collected on private pensions in payment, £11.3 billion, to reach an estimate of the net tax relief cost. HMRC estimated this cost to be around £23.7 billion.⁸

However, if the Government phased out tax relief on pension contributions this would not necessarily result in extra revenue of the full cost of tax relief as, for instance, some pension savings would be diverted to other tax-advantaged savings account or spent.⁹

Table 1: Estimated costs of tax relief on private pensions (2010/11)

Tax relief on:	£ millions
<i>Relief paid on contributions into schemes:</i>	
Employees' contributions to occupational pension schemes	£4,000
Employers' contributions to occupational pension schemes	£18,700
Employees' contributions to personal pension schemes	£2,000
Employers' contributions to personal pension schemes	£3,000
Contributions to personal pensions by the self-employed	£800
Total tax relief on contributions	£28,500
<i>Relief paid on investment returns:</i>	
Investment income of funds	£6,500
Total tax relief on private pensions	£35,000
<i>Less tax liable on:</i>	
Pension payments	£11,300
Total tax received	£11,300
NET TAX RELIEF COST	£23,700

There is also a cost of relief from National Insurance contributions on employers' pension contributions worth £14.3 billion in 2010/11 (see Box 2), and tax forgone due to higher income tax personal allowances for pensions; in 2010/11 the cost of the higher tax allowance was £2.8 billion.

⁸ HMRC PEN6 (2013)

⁹ PPI (2004)

Box 2: National Insurance relief

The treatment of National Insurance contributions can also affect pension savings. Where employers offer employees the option to 'give up' a portion of their salary which is then made as an employer's pension contribution, National Insurance contributions are not payable on this. This is known as 'salary sacrifice'. The Mirrlees review concluded that this means that the treatment of private pensions deviates from tax neutral treatment of saving. For instance, if an employee sacrifices £2,000 of their salary and their employer, in turn, makes £2,000 pension contributions on their behalf, this reduces the amount of salary on which both the employer's and the employee's National Insurance are calculated by £2,000.

Table 2 compares the tax and National Insurance paid by a contracted-in employee who makes a direct £2,000 contribution to a pension scheme against making the same contribution using salary sacrifice. The take home pay of the employee is higher as a result of reduced National Insurance contributions (£23,218 compared to £22,978) and the pension contribution is the same, leading to a higher valued remuneration package. In addition, the employer pays lower National Insurance contributions in the case of salary sacrifice leading to a lower cost of the employee to the employer, and a higher proportion of that cost making its way to the employee's remuneration, 71.9% of employer cost in the case of salary sacrifice versus 70.7% in the case of direct employee contribution.

Table 2: Comparison of direct employee contribution vs salary sacrifice

	Employee contribution	Salary sacrifice
Pre sacrifice salary	£32,000	£32,000
Salary sacrificed (as employer contribution)	£0	£2,000
Post sacrifice gross salary	£32,000	£30,000
Employee pension contribution	£2,000	£0
Tax on salary	(£4,112)	(£4,112)
Employees' National Insurance contributions	(£2,910)	(£2,670)
Employees' net take-home pay	£22,978	£23,218
Total pension contributions	£2,000	£2,000
Employee's net remuneration package	£24,978	£25,218
Employer's National Insurance contributions	£3,354	£3,078
Total cost to employer	£35,354	£35,078
Employee remuneration as a percentage of employer's cost	70.7%	71.9%

Although there is a cost to the Government in reduced NI revenues, this is not considered directly as part of the tax relief system in this report.

The cost of pension tax relief has been increasing in recent years. The gross cost before taking into account tax paid on pensions in payment increased from £29.4 billion in 2008/9 to £35 billion in 2010/11.¹⁰ More recent developments are likely to affect the cost of tax relief in different ways. The impact of the recent reductions to the Annual and Lifetime Allowances is not yet known, however, it is likely that these will have reduced the cost of tax relief. In contrast, the introduction of auto-enrolment is likely to result in more people paying into pensions. Under automatic enrolment, the total amount paid in, and the corresponding tax relief, is likely to increase all other things being equal.

How is pension tax relief distributed?

Tax relief benefits higher earners disproportionately, with higher earning employees receiving the majority of the tax relief from the government. However, this partly reflects the fact that higher and additional rate taxpayers pay a larger proportion of tax revenues.

Chart 2 provides an estimate of how tax relief was distributed by salary based on 2010/11 data, adjusted for known changes in the additional income tax rates. The cost¹¹ of tax relief after the adjustments is £26.6 billion per year. While basic rate taxpayers make 50% of total pension contributions, they benefit from only 25% of pension tax relief. In contrast, 55% of pension tax relief goes to higher rate taxpayers and 20% to additional rate taxpayers; these groups make 40% and 10% of the total contributions respectively. These proportions are broadly in line with estimates provided by HM Revenue and Customs¹².

¹⁰ HMRC PEN 6(2013)

¹¹ This is an estimate of tax relief under the assumption that the highest rate of income tax will be 45% in line with current tax rates. For this reason, the cost of tax relief is lower here than in Table 1 which shows the cost of tax relief when the highest rate of income tax was 50%.

¹²<http://www.publications.parliament.uk/pa/cm201212/cmhansrd/cm120220/text/120220w0006.htm#12022110000486>

Chart 2¹³

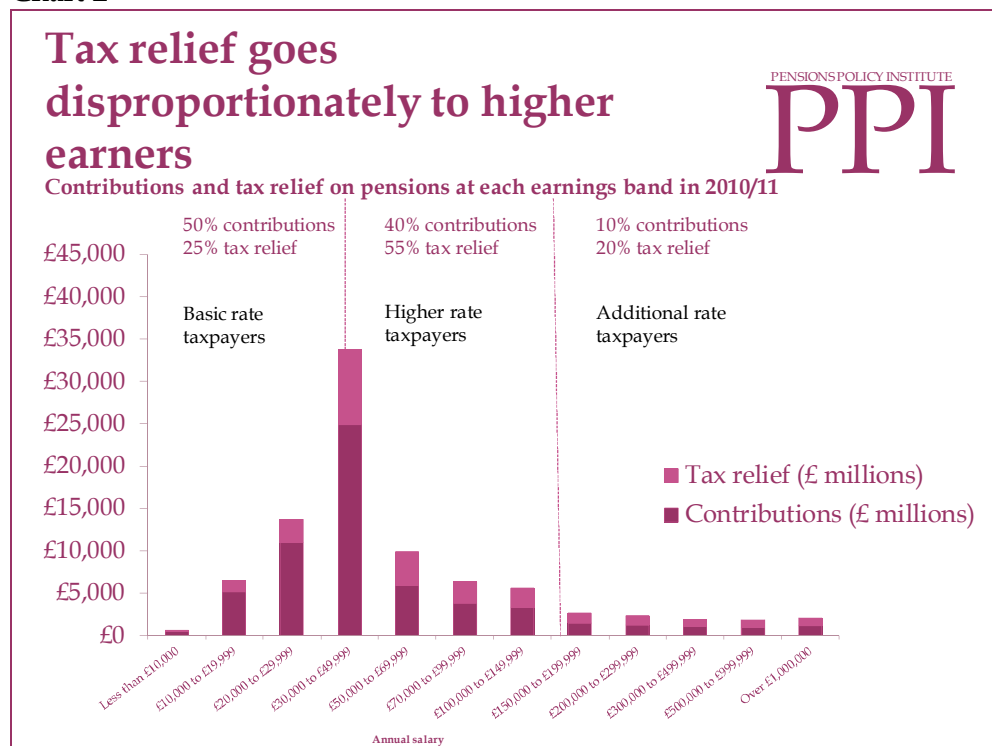
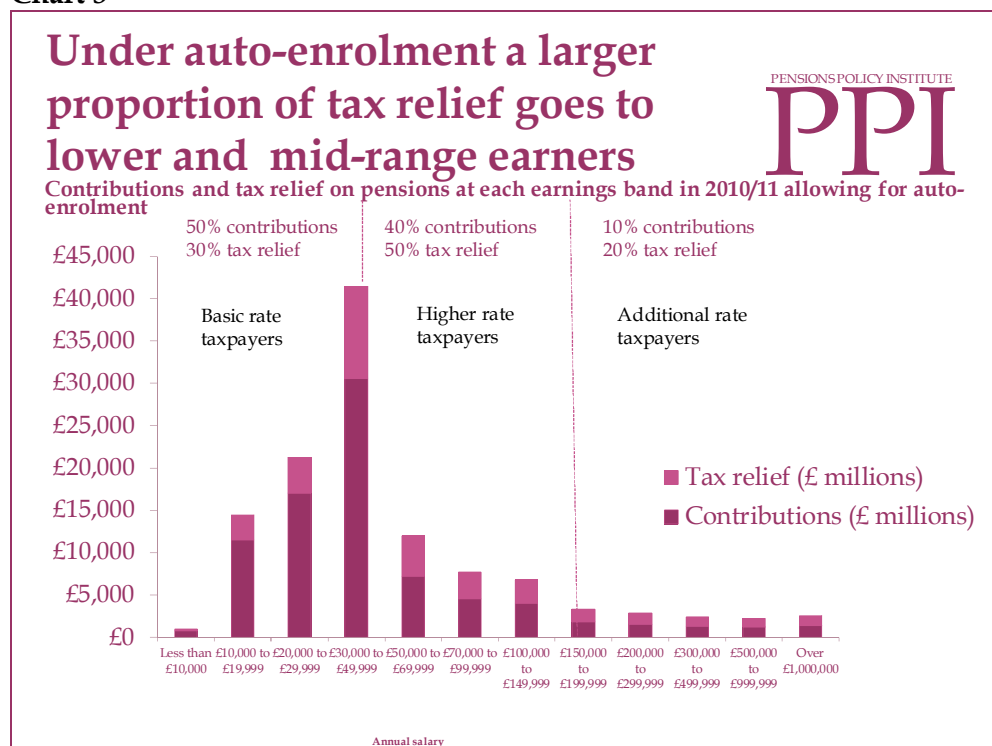


Chart 3¹⁴



¹³ PPI analysis of HMRC tables 3.8 and PEN 6

¹⁴ This assumes a participation rate in auto-enrolment of 75% and that the average rate of contribution does not change by salary.

Chart 3 takes into account the projected increase in pension contributions brought about by auto-enrolment, showing what 2010/11 tax relief might have looked like if auto-enrolment had already been fully in place. As these charts are based on 2010/11 figures they do not take account of the reduction in the Annual Allowance from £255,000 to £50,000 which took place in 2011/12. Annex 1 explains how these figures have been adjusted for auto-enrolment.

The projected cost of pension tax relief after the introduction of auto-enrolment, is £34.9 billion per year. While basic rate taxpayers make 50% total pension contributions, they benefit from 30% of pension tax relief. In contrast, 50% pension tax relief goes to higher rate taxpayers and 20% goes to additional rate taxpayers; these groups make 40% and 10% of the total contributions respectively.

However, despite this, the fact that higher rate taxpayers attract tax relief at the higher rate means that they continue to attract a disproportionate amount of tax relief.

Summary

- 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 UK pension tax system is based on an EET system; the principle of contributions being Exempt from tax, Investment returns being Exempt from tax, and withdrawals from pension being Taxed. However, in practice, the UK system is best referred to as Eet, with contributions being exempt from tax while growth and income within the pension fund are exempt from tax, with the exception that tax on equities at the Corporation Tax rate has been paid and cannot be reclaimed, and pension payments being taxed at the individual's marginal tax rate, apart from tax-free lump sum of up to 25% of the fund.
- Limits to tax relief include the Annual Allowance and the Lifetime Allowance. These are currently set at £50,000 and £1.5 million respectively, and will reduce to £40,000 and £1.25 million respectively from 2014/15.
- The tax treatment of pensions in the UK is better than that of other savings, including ISAs (which are sometimes described as tax neutral). Pension saving in the UK is therefore tax advantaged.
- The current distribution of tax relief benefits higher rate taxpayers more than basic rate taxpayers. An important tax advantage accrues from the fact that it is possible to withdraw a tax-free lump sum of up to 25% of the pension value.
- Many people are likely to experience lower tax rates in retirement than during their working lives, meaning that they gain a further tax advantage.

- The net cost of tax relief, after allowing for tax paid on pensions in payment, was estimated to be £23.7 billion in the 2010/11 tax year.
- The introduction of auto-enrolment will increase the number of lower earners making pension savings. Allowing for auto-enrolment, the gross cost of pensions tax relief on contributions to pensions could be around £35 billion a year (before any reduction for income tax paid on pensions in payment). However, even after allowing for the introduction of auto-enrolment, while basic rate taxpayers make 50% of the total pension contributions, they benefit from 30% of pension tax relief. In contrast, 50% pension tax relief goes to higher rate taxpayers and 20% goes to additional rate taxpayers, these groups make 40% and 10% of the total contributions respectively.

Chapter 2: Does the pension tax relief system work?

Chapter 1 highlighted concerns that tax relief is not well-targeted.

This chapter will consider:

- How many individuals gain from the tax advantages in the current system of tax relief;
- The extent to which tax relief incentivises saving and leads to adequacy of retirement income and;
- Why tax relief does or does not incentivise pension saving.

These can run counter to each other in practice.

Avoidance of double taxation

The current pension tax relief system aims to ensure that pension saving is at least tax neutral (people do not pay tax twice on the same income). The 25% tax-free lump sum means that the pension tax relief system is actually tax advantaged. In this respect, all individuals with pension saving receive a tax advantage.

In addition, the system works so that some people gain a tax advantage from pension saving, as follows:

- Where people receive tax relief on contributions at the higher rate and pay tax on a private pension in retirement at the basic rate, they gain a greater tax advantage.
- Similarly, people who receive tax relief on contributions at the basic rate and do not pay tax in retirement receive a tax advantage.

It is difficult to know how many people benefit in either of these ways. Table 3 shows the number of people in 2010/11 who paid basic, higher and additional rate tax.¹⁵ In 2010/11, higher rate tax was paid by around 2 million (10%) taxpayers whose largest source of income was from employment and by around 200,000 (4%) of taxpayers whose large source of income was from a pension. The percentage of people paying higher rate tax has been increasing, and in future more individuals are likely to pay higher rate tax, both while working and in retirement as the income at which higher rate tax is payable has been falling relative to average earnings. PPI calculations suggest that the proportion of pensioners paying higher rate tax could increase to around 9% of pensioners by 2026, assuming that thresholds are increased broadly in line with prices.¹⁶

¹⁵ HMRC table 3.4

¹⁶ Assuming that the Personal Allowance increase in line with CPI, following the increase to £10,000 in 2014/15 and that the basic rate band increases in line with RPI from 2016/17 following planned increases of higher rate threshold in 2014/15 and 2015/16. See HMRC, *Income tax higher rate threshold for 2014-15* and HMRC *Income tax personal allowance for those born after 5 April 1948 and basic rate limit for 2014-15*

Table 3: Numbers of taxpayers by tax rate and main source of income, 2010/11¹⁷

	Main source of income from employment (thousands)	Main source of income from pension (thousands)
Basic rate taxpayers	19,400	5,210
Higher rate taxpayers	2,290	202
Additional rate Taxpayers	160	8

Fiscal drag, whereby an increasing number of people are pulled into paying higher rate tax, means that higher numbers of people will pay higher rate tax during retirement and also during their working lives. However, it is likely that there will remain a group of people who pay higher rate tax at some point during their working lives and basic rate tax in retirement. If this pattern persists, this suggests that a large proportion of those people currently paying higher rate tax on their earnings, and benefitting from higher rate tax relief, may not pay higher rate tax on their pension income.

Income smoothing

Even where people who receive higher rate relief subsequently pay only basic rate tax, the system could be considered to be operating fairly. The principle which informs this is that individuals are smoothing their income between periods of higher and lower income – an annually-assessed progressive tax system is seen to be unfair in that, over the years, it takes more tax from people whose income is volatile.¹⁸ For instance, they may earn a salary in one year that takes them into the higher rate tax bracket, and no income in the second year. This means that they have not been able to benefit from the personal allowance and the basic rate tax band in the second year, compared to an individual who has received the same income but spread equally over two years.

However, as shown in the previous chapter, higher rate taxpayers who pay basic rate tax in retirement, in particular, benefit from pension tax relief relative to a tax neutral TEE system (where contributions are taxed but returns and payments out are tax-free) such as an ISA system.

The tax-free lump sum itself represents a clear tax advantage; it is currently possible to withdraw a tax-free lump sum of up to £375,000. While the 25% tax-free lump sum is available to everyone who is drawing down their private pension, it benefits wealthier people disproportionately for two reasons; they are able to accrue larger pension pots and are more likely to pay tax at the higher rate when making contributions and, therefore, benefit from a higher rate of tax relief. As the Lifetime Allowance is reduced to £1.25 million in

¹⁷ HMRC, table 3.4

¹⁸ Adam, Browne, Johnson (2012)

2014/15 the maximum tax- free lump sum will also decrease to £312,500; however, this still remains a substantial advantage.

Does tax relief encourage pension saving?

Evidence around the effectiveness of tax incentives in encouraging pension saving is limited. However the literature enables some understanding around the effectiveness of tax relief as well as reasons why tax relief is not effective. There are some issues which relate directly to the tax relief system:

- Lack of understanding around tax relief.
- People redirect money from savings into a pension, rather than increase their savings overall.
- Higher earners, who may be more likely to save, are more likely to respond to incentives.
- Tax relief has not led to enough saving to close the 'Savings Gap'.

There are some more general barriers to pension saving, which an effective incentive system would need to overcome:

- People have insufficient income to make pension savings.
- Lack of understanding around pensions.
- Issues related to the current design and delivery of pensions.
- Inertia.

Lack of understanding around tax relief

Where people do not understand tax relief and this is likely to dilute its effectiveness as an incentive to save. Understanding around the tax treatment of pensions is low¹⁹ and research suggests that, for lower income groups, tax relief is not an important determinant in people's decision to save.²⁰

People redirect money from savings into a pension, rather than increase their saving overall

Evaluation of tax incentives on pensions demonstrates that these have not led to significant levels of additional saving²¹; they are directing more money from other types of savings into pension savings rather than incentivising saving overall. While people are making use of tax relief for pensions, this is having a limited impact on the level of savings overall as the majority of pension saving would have been saved in other vehicles. A similar pattern of behaviour relates to other tax-advantaged vehicles such as ISAs.²² However, it is not necessarily the case that these savings in vehicles other than pensions would have been retained until retirement. In contrast the use of pension savings is restricted and therefore, even where these savings have been redirected from savings, the restrictions mean that these individuals are

¹⁹ Wells, Leston and Montgomery (2011), Sandler (2002), Clery, Humphrey and Bourne (2010)

²⁰ Kempson, McKay and Collard (2003)

²¹ Engen, Gale and Scholz (1996), Engen and Gale (2000), Sandler (2002), Attanasio, Banks and Wakefield (2004), Law, Meehan and Scobie (2011), Crawford, Disney and Emmerson (2012)

²² IFS (2012)

required to use these for their retirement; this plays a role in ensuring that they have sufficient funds for their retirement.

Several initiatives have looked to increase pension or other saving. The results from respective evaluations of these and other papers are summarised in Annex 6. It is important to recognise that the economic context differs between initiatives as these were introduced in different countries and at different times. Similarly, various initiatives are structured in different ways and may have different features, such as KiwiSaver's auto-enrolment feature, making it difficult to assess the effectiveness of the incentive. Despite this, the evidence enables some inferences regarding the effectiveness of savings incentives; while the results from these are mixed, taken together these indicate that any additional savings are modest. However, many initiatives such as KiwiSaver and 401(k) plans are not targeted specifically at lower earners. Where initiatives such as the UK Savings Gateway and the US Saver's Credit are targeted at lower earners the results suggest that these may well result in higher levels of additional saving.

Higher earners, who may be more likely to save, are more likely to respond to incentives

Analysis of the data and research to date indicates that tax relief does not match its target group as it does not adequately incentivise people with lower and middle incomes to save²³; rather it rewards those people who would have saved in any case to save into a pension – and these people are also more likely to respond to incentives. Evidence also shows that:

- People with higher incomes are more likely to save into pension schemes, but much of this saving is diverted from other savings – where these people save into pensions this does not represent additional retirement saving;²⁴
- People with lower and middle incomes are less likely to be saving into pension schemes. However, if incentives were successful in leading these groups to save into pension schemes, it is likely that a larger proportion would be new saving and would therefore represent additional retirement saving.²⁵

Tax relief has not led to enough saving to close the 'Savings Gap'

Overall, there is a concern that savings incentives have not encouraged people to save enough for their retirement.²⁶ There remains a difference between the amount people need to save to achieve a reasonable retirement income and the amount they are actually saving, something that is often referred to as the 'savings gap'.²⁷ However, there are differences across the

²³ PPI (2004)

²⁴ Engen and Gale (2000), Attanasio, Banks and Wakefield (2004)

²⁵ Gale, Mark Iwry and Orszag (2004), Kempson, McKay and Collard (2003)

²⁶ PPI (2004)

²⁷ Rowlingson (2002)

population with some people undersaving for retirement while others have more retirement income than they need. The Department for Work and Pensions recently estimated that over 10 million working age people will have incomes in retirement below the Pensions Commission target replacement rates.²⁸ This may not in itself mean that pensions tax relief has not incentivised saving, as tax relief may facilitate pension saving but not to the extent that individuals save enough for their retirement. However, it does bring into question the current system of savings incentives.

People have insufficient income to make pension savings

If individuals do not have enough income, or do not consider themselves to have sufficient income to pay into a pension scheme tax incentives will not be relevant to their decision.²⁹ Research suggests that this is an important factor in people's decisions: in a 2009 survey of people aged 18-69, 51% agreed that they could not afford to put money aside for retirement at the moment.³⁰

Lack of understanding around pensions

People's choice of savings vehicle is partly driven by what they understand.³¹ Lack of knowledge around savings products prevents people using formal savings accounts, and evidence suggests that lack of knowledge around savings is most acute among those with lower incomes.³² This demonstrates how pensions may not be attractive to people, in particular, on lower incomes.

This is complicated by a lack of understanding around the amount of saving that would be required to have an adequate retirement income³³ and other factors such as charges³⁴, making it more difficult to judge whether a pension scheme offers good value.

Issues related to the current design and delivery of pensions

Pension schemes themselves are also unattractive to some people, particularly people with low incomes. Research around savings has shown that people on low incomes prefer simple, accessible accounts that are suitable for small deposits and where their savings are not at risk; the opposite of pension schemes.³⁵ A further barrier related to the current delivery of pensions, including a lack of trust in financial institutions.³⁶

Similarly, it has been suggested that the pensions market finds it difficult to meet the needs of those on low to middle incomes in the current system because of their low levels of contributions, irregular saving, and

²⁸ DWP (2012)

²⁹ PPI (2004), Harcastle (2012), Wells, Leston and Montgomery (2011), Rowlingson (2002)

³⁰ Clery, Humphrey, Bourne (2010)

³¹ Wells, Leston, Montgomery (2011)

³² Kempson, Finney (2009), Sandler (2002)

³³ Harcastle (2012)

³⁴ Cook and Johnson (2000)

³⁵ Kempson, Finney (2009)

³⁶ Wells, Leston and Montgomery (2011), PPI (2010), Wicks and Horack (2009)

administrative costs.³⁷ However, the introduction of auto-enrolment and the National Employment Savings Trust (NEST) should partly fill this gap in the market, at least for employees.

Inertia

Individuals may have an aversion to long term planning, or find it difficult to imagine the future.³⁸ Further factors include inertia³⁹ and loss aversion regarding other means-tested benefits that someone expects to receive in retirement – where people believe that additional pension saving would simply replace benefits that they would have received.⁴⁰

Future role of tax relief

The above demonstrates how tax relief is not currently incentivising saving among those people who are at most at risk of having inadequate retirement incomes. Similarly, there is evidence that people value the immediate gratification of spending in the present over saving money to spend in the future⁴¹. Auto-enrolment was introduced in response to the concern that individuals are not saving enough for their retirement, and represents an attempt to address this shortfall. In particular it targets individuals on lower and middle incomes who are most likely to have inadequate incomes in retirement. Tax relief plays an important role in auto-enrolment, as it has been presented as the government's contribution to individuals' pension schemes rather than as tax relief. However, auto-enrolment, as it currently stands, will not make up the total shortfall in pension saving.

Summary

- Some people gain a tax advantage from pension saving if they receive pension tax relief at a higher rate than the tax rate on their income in retirement. It is difficult to know how many people benefit in this way. However, in 2010/11, higher rate tax was paid by around 2 million (10%) taxpayers whose largest source of income was from employment and by around £200,000 (4%) of taxpayers whose largest source of income was from a pension. PPI calculations suggest that the proportion of pensioners paying higher rate tax could increase to around 9% of pensioners by 2026, assuming that thresholds are increased broadly in line with prices.
- There is limited evidence around the effectiveness of tax incentives in encouraging pension saving.
- Understanding around the treatment of pensions is low, something that is likely to dilute its effectiveness as an incentive to save.
- Tax incentives on pensions have redirected more money from other savings into pensions rather than incentivising saving overall. One reason for this is that tax relief does not match its target groups as higher earners, who may be more likely to save, are more likely to respond to incentives.

³⁷ Wicks and Horack (2009)

³⁸ PPI (2004), Rowlingson (2002)

³⁹ Harcastle (2012), Wicks and Horack (2009)

⁴⁰ Harcastle (2012), PPI (2004), Wicks and Horack (2009)

⁴¹ FCA (2013)

- There remains a 'Savings Gap', the difference between the amount people need to save to achieve a reasonable retirement income and the amount they are actually saving.
- General barriers to pension saving include insufficient income to make pension savings, lack of understanding around pensions and issues related to the current design and delivery of pensions.

Chapter 3: Alternatives to the current system

The previous chapters in this report raise the question of whether tax relief could be better targeted and aligned with the new system of auto-enrolment, so that it has a greater impact on low to median earners who may need to supplement their state pension with additional retirement income. However, when considering any proposed changes, it is important to consider any consequences in terms of double taxation, and the impact on existing pension structures and, in particular, Defined Benefit schemes; it is relatively straightforward to give tax relief at the marginal rate for these schemes.

Recent changes to pension tax relief include restrictions to the Annual and Lifetime Allowances from £50,000 to £40,000 and the Lifetime Allowance from £1.5 million to £1.25 million from 2014/15. HMRC estimates that the restriction to the Annual Allowance will affect 140,000 people while the restriction to the Lifetime Allowance will affect 360,000.⁴² This chapter considers the impact on individuals of these recent changes.

There has also been discussion around the favourable treatment of pension contributions and income. While it is recognised that pension tax relief should be better than tax neutral⁴³, it is argued that the 25% tax-free lump sum favours the highest-paid most⁴⁴ and is over-generous.⁴⁵ Similarly, the Mirrlees Review⁴⁶ also suggested restricting the tax-free lump sum.⁴⁷ However, concerns around any restriction centre on how any transition would be managed and the reassurance offered by the lump sum in the face of people's fear that if they die their beneficiaries might see little or nothing from years of saving.⁴⁸

Chapter 4 therefore also provides an overview of the distribution of pension tax relief on the 25% tax-free lump sum. It also considers the implications of two reform options; restricting the tax-free lump sum to 20% of the pension fund and capping the tax-free lump sum at £36,000.

Another type of reform recently proposed is the setting of a single rate of tax relief on contributions; this would be seen to address the concern that higher rate taxpayers benefit disproportionately from the current system of tax relief. In advance of the most recent general election, the Liberal Democrats proposed limiting tax relief to the basic rate.⁴⁹ There have also been suggestions that a single rate of tax relief that would cost the same as the

⁴² HMRC (2012)

⁴³ IFS (2012)

⁴⁴ Hills, Bastagli, Cowell, Glennerster, Karagiannaki and McKnight (2013)

⁴⁵ IFS (2012)

⁴⁶ The Mirrlees Review indicated that the treatment of private pensions also departs from tax neutrality in that employer pension contributions are not subject to national insurance at all, and suggested that revenue could be raised by subjecting pension income to National Insurance contributions. However, national insurance is not a focus of this research.

⁴⁷ IFS (2010)

⁴⁸ Hills, Bastagli, Cowell, Glennerster, Karagiannaki and McKnight (2013)

⁴⁹ Hills, Bastagli, Cowell, Glennerster, Karagiannaki and McKnight (2013)

⁴⁹ http://www.libdems.org.uk/news_detail.aspx?title=Liberal_Democrats_will_cut_people%E2%80%99s_income_tax_bill_by_%C2%A3700&pPK=e71a798a-c038-45f5-9baa-b0eaad6bd9fa

current system should be introduced, for example a 30% single rate of tax.⁵⁰ Complementary approaches outlined include changing tax relief to a clearer matching payment, which would be easy to understand and would therefore incentivise pension saving.⁵¹ However, again, there are some concerns around the practical implementation of a single rate of tax relief particularly for Defined Benefit schemes. These are explored in the relevant section.

Chapter 5 evaluates these 3 single rate options in terms of the distribution and cost of tax relief.

Recent adjustments to the current system

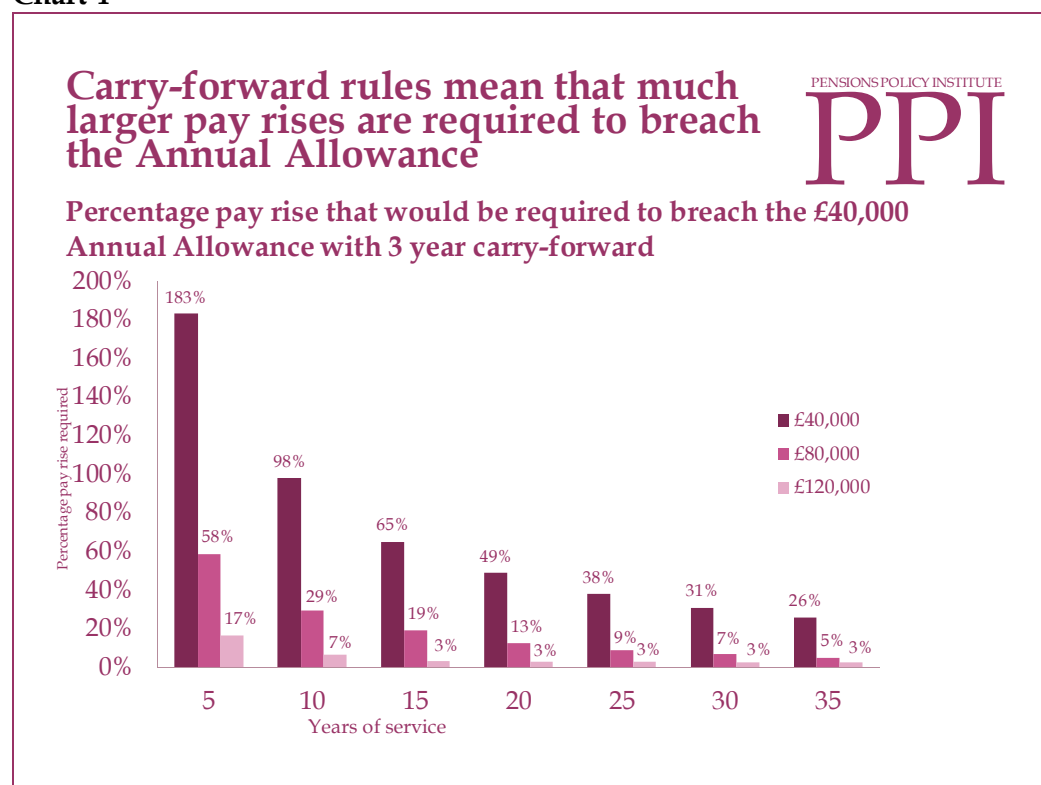
Recent developments in pensions tax policy, confirmed in the 2013 Budget, include the reduction of the Annual Allowance from £50,000 to £40,000 and the Lifetime Allowance from £1.5 million to £1.25 million from 2014/15.

The reduction of the Annual Allowance from £50,000 to £40,000 could lead to tax charges for relatively high earning members of a final salary Defined Benefit pension scheme, particularly those people who have been members of Defined Benefit schemes for a significant length of time. In practice, this means that they will be taxed at their highest marginal rate on the amount over the Annual Allowance. However, this can be reduced by carrying forward any unused Annual Allowance from the previous three years. Where someone in a Defined Benefit scheme receives a salary increase in one year this leads to the effective increase in their pension benefits for all previous years. In practice this means that the deemed value of their pension benefits for that year, the amount by which the value of their pension is estimated to have increased, is relatively high.

Chart 4 shows the level of pay rise that would trigger a breach of the £40,000 Annual Allowance for members of a typical Defined Benefit final salary scheme. After allowing for carry-forward, an individual who earns £40,000 with 20 years of service would need a 49% pay increase to breach the Annual Allowance. In the same scheme, without the carry-forward provision, the same individual would need just a 15% pay increase to breach the Annual Allowance. An individual who earns £120,000 with 20 years of service would need a 3% pay increase to breach the Annual Allowance. This is not significantly changed by the carry-forward provision, as the individual is likely to have little unused Annual Allowance to carry-forward. In this way, the carry-forward provision significantly reduces the level of pay rise that would lead an individual to exceed the Annual Allowance. However, it will make less of a difference at higher earnings levels, where individuals may have used a large proportion of their Annual Allowance in previous years and, consequently, have less to carry forward.

⁵⁰ See for example <http://www.aviva.com/media/news/item/uk-aviva-says-give-people-early-access-to-pension-savings-5470/>

⁵¹ Hills, Bastagli, Cowell, Glennerster, Karagiannaki and McKnight (2013)

Chart 4⁵²

Overall this change to the Annual Allowance is most likely to affect high earners and may affect moderate earners with long service histories, with the carry forward provisions limiting the impact on lower earners.

In contrast, an individual who is a member of a Defined Contribution pension scheme may decide to cap their contributions in order to avoid paying a tax charge. In turn, this will limit the value of their pension fund and their income in retirement. However, people who pay high amounts into their pension funds may be limited by the Lifetime Allowance in any case; this limits the total value of the fund that can attract tax relief. As it is currently set at £1.5 million and due to reduce to £1.25 million, and includes investment returns, those people paying in £40,000 over a long period of time may find that the tax relief that their pension can attract is limited by the Lifetime Allowance. Chart 5 shows how reducing contributions might have an impact on the final value of an individual's pension fund.

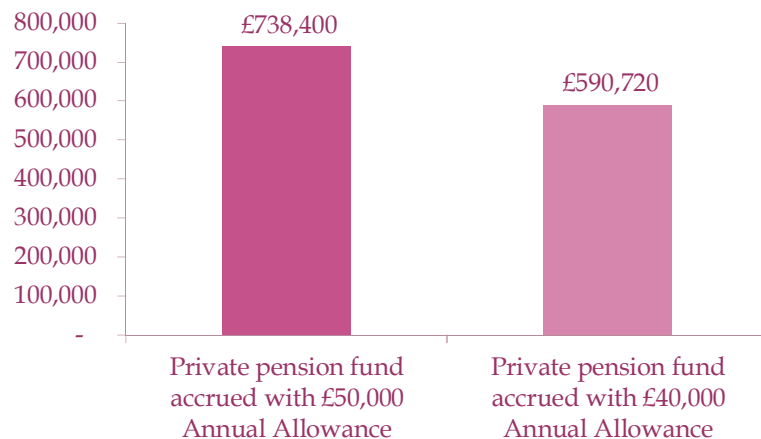
⁵² Based on a 1/60th pension scheme given a 3 year carry forward

Chart 5⁵³

Reducing contributions to keep below the annual allowance would reduce the value of pension funds

PENSIONS POLICY INSTITUTE
PPI

Annual private pension income for a high earning DC pension scheme member



Changes to the Annual and Lifetime Allowances would mean that pension tax relief is more evenly distributed and reduces the cost of tax relief, however this will not improve the incentives for anyone to contribute to a pension and will reduce the value of pensions to higher earners.

Summary

- After allowing for carry-forward, an individual who earns £40,000 with 20 years of service would need a 49% pay increase to breach the Annual Allowance. In the same scheme, without the carry-forward provision, the same individual would need just a 15% pay increase to breach the Annual Allowance. An individual who earns £120,000 with 20 years of service would need a 3% pay increase to breach the Annual Allowance. This is not significantly changed by the carry-forward provision, as the individual is likely to have little unused Annual Allowance to carry-forward. In this way, the carry-forward provision significantly reduces the level of pay rise that would lead an individual to exceed the Annual Allowance. However, it will make less of a difference at higher earnings levels, where individuals may have used a large proportion of their Annual Allowance in previous years and, consequently, have less to carry forward.
- Overall this change to the Annual Allowance is most likely to affect high earners and may affect moderate earners with long service histories, with the carry forward provisions limiting the impact on lower earners.

⁵³ Based on contributions of £40,000 and £50,000 over ten years, and investment returns of 6%.

- An individual who is a member of a Defined Contribution scheme may decide to cap their contributions in order to avoid paying a tax charge. In turn this will limit the value of their pension fund and their income in retirement.

Chapter 4: Adjustments to the 25% tax-free lump sum

An important attribute of the current pension tax relief system is the 25% tax-free lump sum. This plays a role in making the current system tax-advantaged rather than tax-neutral.

There is limited evidence around the distribution of lump sums in terms of their size and the tax savings associated with the lump sum.

In order to estimate the size distribution of tax relief on lump sums, the PPI has used data from the English Longitudinal Study of Ageing to project the pension wealth of today's over-50s to retirement, using a number of strong simplifying assumptions. As a result of this, the results presented here should be treated as broad estimates. A full description of the methodology and assumptions used can be found in Annex 5, but some key assumptions include:

- Individuals currently contributing to a private pension continue to do so at the same rate
- Individuals not currently contributing to a pension, but who will be eligible for auto-enrolment, begin saving at the minimum contributions rates required under legislation
- All individuals are assumed to take their pension at state pension age (SPA)
- Individuals saving in Defined Contribution schemes are assumed to take their full tax free lump sum entitlement of 25%
- Where appropriate DB members are assumed to convert 25% of their pension into a lump sum with a commutation factor of 12

This chapter considers the distribution of tax relief on lump sums. It also considers the implications of limiting the tax-free proportion of the lump sum to 20% of the pension fund and capping the tax-free proportion of the lump sum to the 75th percentile of the distribution, currently £36,000. The report considers two potential restrictions to the tax-free lump sum. The figures below do not take into account any possible behavioural change, in that individuals are assumed to take their full lump sum entitlement in all scenarios.

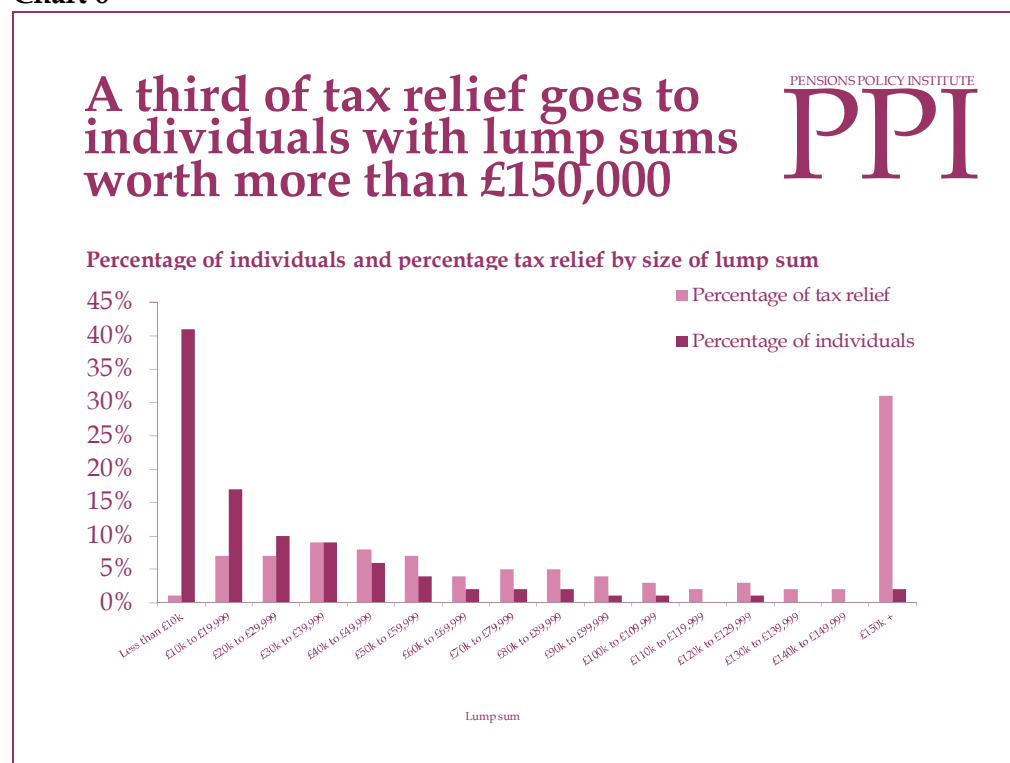
For each of the alternative options the analysis considers:

- How much would the resulting system cost?
- How evenly distributed would tax incentives be?

Lump sums projected under the current system

Chart 6 shows how lump sums are distributed and how the tax relief given on these lump sums is distributed. While 77% of individuals have a lump sum of under £40,000, only 24% of the tax relief on lump sums goes to these individuals. Similarly, while 2% of lump sum are worth £150,000 or more, they attract 32% of tax relief on lump sums. Therefore, this is an area which significantly benefits people with high levels of pension wealth. The projected cost of this tax relief on lump sums is £4 billion.

Chart 6⁵⁴



⁵⁴ PPI analysis

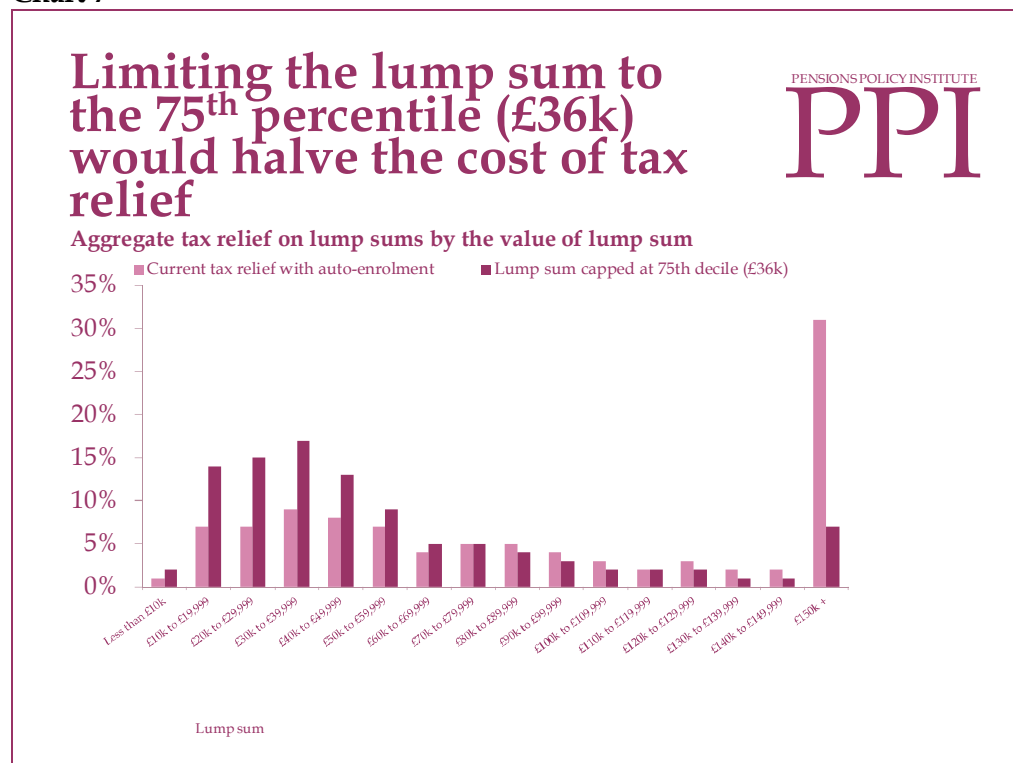
Limiting the tax-free portion of lump sums to 20% of the pension fund

Under this option, the reduction in tax relief received would be proportionally the same for all individuals, assuming no change in saving behaviour and that individuals still take the maximum available tax-free lump sum. This is because all lump sums would be affected by this change. In practice, any change would be likely to only apply to future contributions, so initial savings would be small and take a number of years to build up. If such a change were applied to current lump sums the cost of tax relief on lump sums could also decrease from £4 billion to £3.5 billion.

Limiting tax relief to the first £36k of lump sums (75th percentile)

An alternative approach would be to cap the size of lump sums that are available tax-free. For example, a cap of £36,000 would mean that 75% of current lump sums would be unaffected but the largest 25% of lump sums would be capped. Again, this is most likely to be applied to new pension contributions so would not make significant savings for many years.

In order to calculate the position of the 75th percentile, the PPI looked at the projected distribution of lump sums based on ELSA; the 75th percentile falls at around a lump sum value of £36,000. In this scenario it has been assumed that individuals continue to take a lump sum of 25% of their pension wealth, but only receive tax relief on the first £36,000.

Chart 7⁵⁵⁵⁵ PPI analysis

If tax relief were limited to the first £36,000 of current lump sums:

- The proportion of total tax relief on lump sums of £150,000 and over could reduce from 32% to 7%.
- The amount of tax relief on lump sums worth less than £40,000 could increase from 24% to 32%.
- The cost of tax relief on lump sums could halve to £2 billion.

Like the recent changes to tax relief, the changes to the lump sum discussed would mean that pension tax relief is more evenly distributed and reduces the cost of tax relief. However this would not improve the incentives for anyone to contribute to a pension and will reduce the value of pensions to higher earners.

This also assumes no behaviour change. In practice, individuals may choose to take larger amounts of the pension fund as an annuity which would reduce the tax foregone on the lump sum but increase the amount of tax on pension income (so collection of tax on these would be delayed).

Summary

- Under the current system, 77% of individuals have a lump sum of under £40,000 while only 24% of the tax relief on lump sums goes to these individuals. While 2% of lump sums are worth £150,000 or more, they attract 32% of tax relief on lump sums. The projected cost of this tax relief on lump sums is £4 billion.
- The figures below do not take into account any possible behavioural change, in that individuals are assumed to take their full lump sum entitlement in all scenarios. The report considers two potential restrictions to the tax-free lump sum.
- If the tax-free portion of the lump sum were limited to 20% of the pension fund, the reduction in tax relief received would be proportionately the same for all individuals. In practice, any change would be likely to only apply to future contributions, so initial savings would be small and take a number of years to build up. If such a change were applied to current lump sums the cost of tax relief could decrease from £4 billion to £3.5 billion.
- An alternative approach would be to cap the size of lump sums that are available tax-free. For example, a cap of £36,000 would mean that 75% of current lump sums would be unaffected but the target 25% of lump sums would be capped. Again, this is most likely to be applied to new pension contributions so would not make significant savings for many years.
- If tax relief were limited to the first £36,000 of the current tax-free lump sums, the proportion of tax relief going to lump sums of £150,000 and over would reduce from 32% to 7%. The cost of tax relief on lump sums could halve to £2 billion. In practice individuals may choose to take larger amounts of the pension fund as an annuity, which would reduce the tax

foregone on the lump sum but increase the amount of tax on pension income.

- Like the recent changes to tax relief, the changes to the lump sum would mean that pension tax relief is more evenly distributed and reduce the cost of tax relief; however they will not improve incentives for anyone to contribute to a pension and will reduce the value of pension saving to higher earners.

Chapter 5: A single rate of tax relief

This chapter considers the consequences of a single rate of tax relief at the basic rate, a broadly cost-neutral rate of 30%, and the higher rate. In all options it is assumed that the 25% tax-free lump sum will remain in place. In this section the cost of tax relief is taken as the tax relief on both employees' and employers' contributions. However, it does not take into account any tax relief on investment returns or offsetting for the tax paid on pensions in payment.

For each of the options the analysis considers:

- How much would the resulting system cost?
- How evenly distributed would tax incentives be?
- Is the resulting system of pension tax relief tax neutral (i.e. is some income for some individuals taxed twice)?
- How easy would the resulting system be for savers to understand?
- How easy would it be to implement the system in the existing pensions landscape?
- To what extent will this incentivise additional pension saving?

How much would the resulting system cost?

As indicated in chapter 1, the estimated cost of tax relief adjusted to take account of auto-enrolment is £35 billion on pension contributions of £83 billion.

In order to calculate the cost of tax relief, the government figures for tax relief on pension contributions have been adjusted for auto-enrolment and a PPI model has been used to apply these figures to single rates of tax relief. Further information is at Annex 4.

Together results provide an overview of the potential impact of pension tax reforms on the distribution and cost of tax relief. However, as with projections there are limitations as to what can be inferred from the results. The model results are driven by assumptions as well as by data, and as a consequence, the analysis does not provide detailed specific forecasts, but rather projections of broad orders of magnitude under different scenarios.

A single rate of tax relief at the basic rate would reduce the cost of tax relief on contributions reducing the current cost of tax relief from £35 billion (taking into account the estimated impact of full implementation of auto-enrolment and assuming that there were no behavioural changes linked to the change of the tax relief rate) to £22 billion (Chart 8).

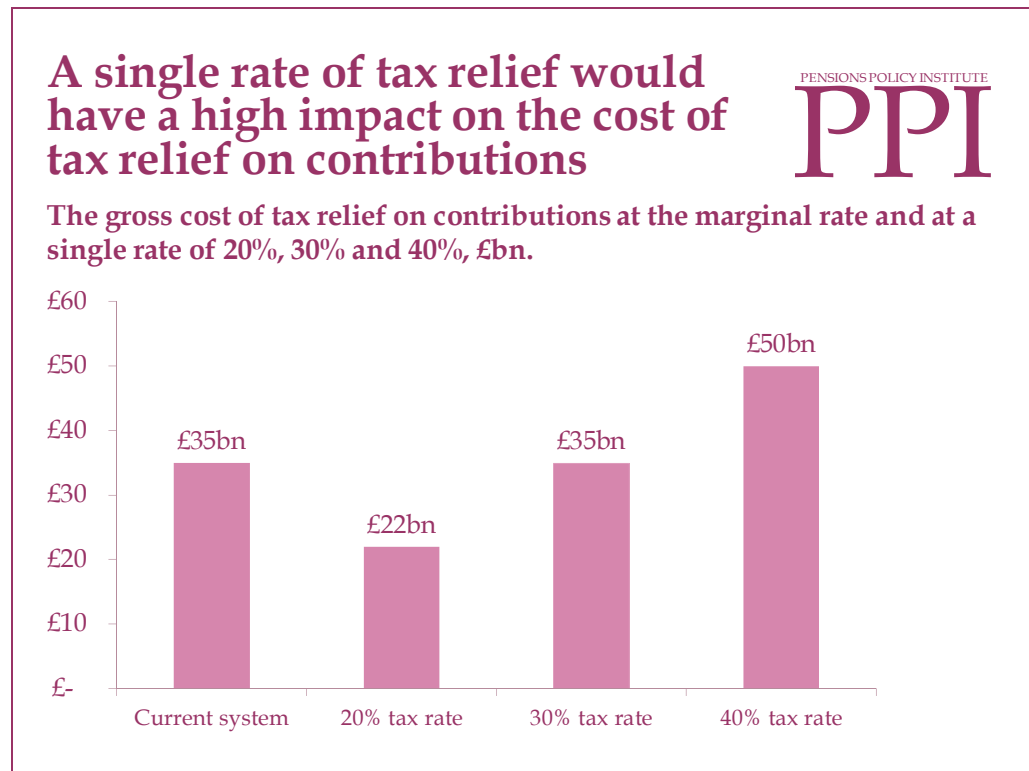
A single rate of tax relief set at 30% could cost £35 billion, broadly the same as the current system (assuming no behaviour change).

A single rate of tax relief at the higher rate could cost £50 billion (again, assuming no behaviour change). Other adjustments would be required for this option to be cost-neutral. When the results for the higher single tax rate are

considered, £25 billion of the total tax relief of £50 billion would go to basic rate taxpayers. It might be possible to make this option 'cost-neutral' by changing other parts of the tax relief system. However:

- Relief on the tax-free lump sum is only estimated to cost £4 billion, so even removing this completely would not offset the cost
- The Annual Allowance would have to be significantly reduced, on the basis that the majority of basic rate taxpayers will have relatively low contributions.

Chart 8

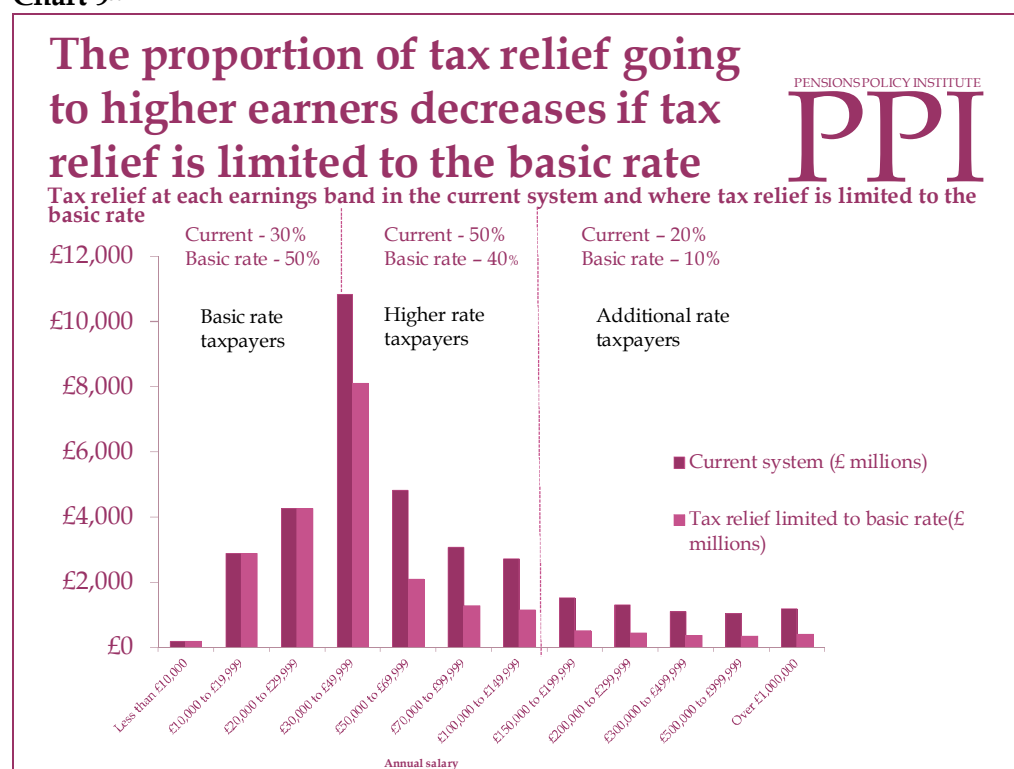


How evenly distributed would tax incentives be?

The distribution of tax relief would be more even under a single rate of tax, as different types of taxpayers would be affected in different ways. Under all of the single rate options, relief is distributed in the same way as contributions. 50% of tax relief would go to higher and additional rate taxpayers compared to 70% in the current system.

Chart 9 shows the impact on the distribution of tax relief of a basic rate of tax relief compared to the current system.

Chart 9⁵⁶

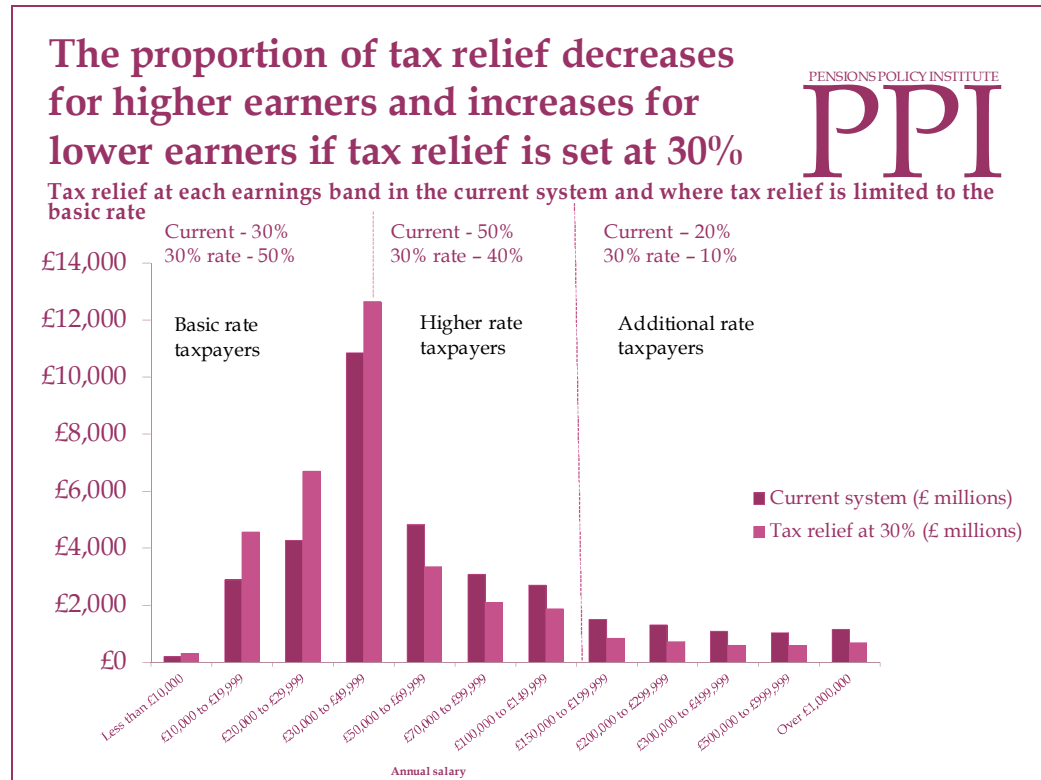


- The distribution of tax relief would be more even than in the current system.
- People at the higher earnings levels would receive a lower proportion of the total tax relief on contributions than under the current system as they receive tax relief at the basic rate rather than the higher rate. A single rate at the basic rate would mean that higher rate taxpayers face a tax disadvantage unless they pay basic rate tax in retirement.

⁵⁶ PPI analysis

Chart 10 shows the impact on the distribution of tax relief of a 30% rate of tax relief compared to the current system.

Chart 10⁵⁷

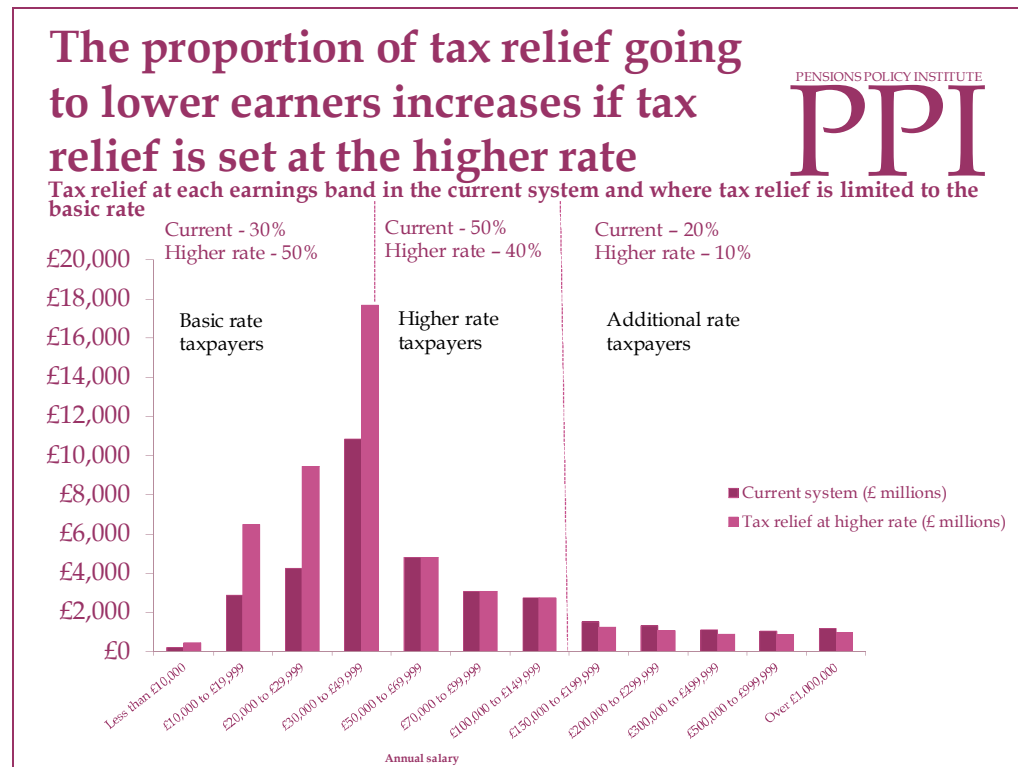


- Lower and mid-range earners would benefit as they would receive tax relief at the 30% rate rather than the basic rate
- Higher and additional rate taxpayers would lose out relative to the current system of tax relief as they would receive tax relief at the 30% rate rather than the higher rate.

⁵⁷ PPI analysis

Chart 11 shows the impact on the distribution of tax relief of a higher rate of tax relief compared to the current system.

Chart 11⁵⁸



- Lower to mid-range earners would benefit as they would receive tax relief at the higher rate rather than the basic rate.
- Very higher earners would lose out relative to the current system of tax relief as they would receive tax relief at the higher rate rather than the additional rate.

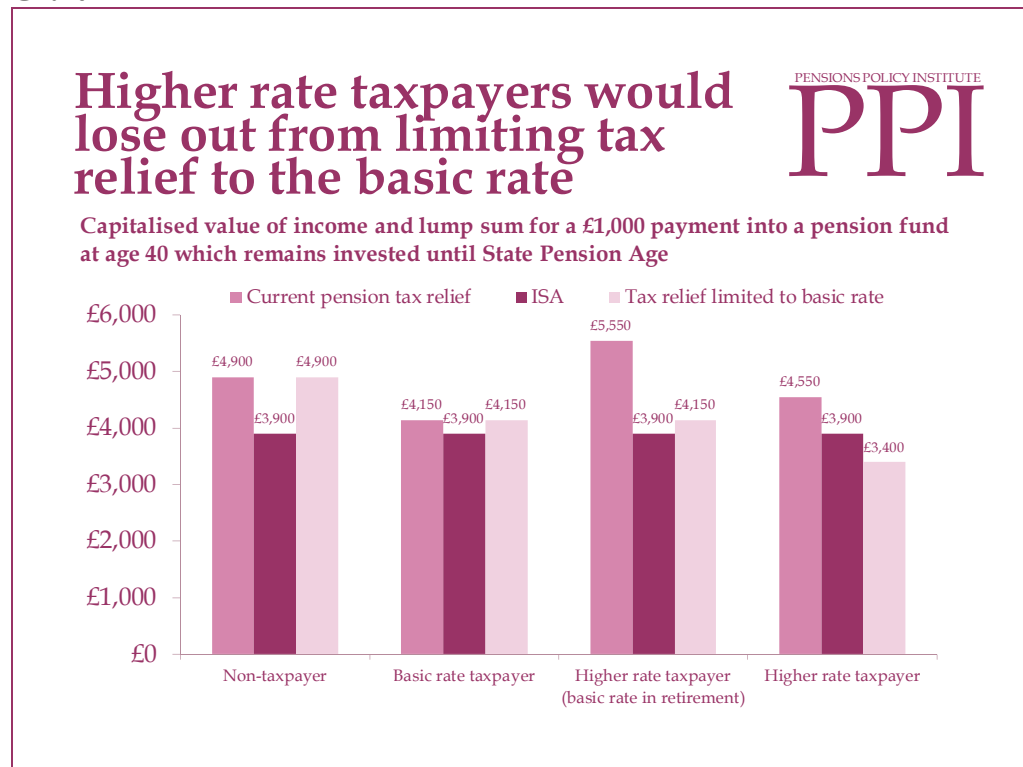
⁵⁸ PPI analysis

Are single tax rate systems tax neutral?

Paying a single rate of tax relief on pension contributions would affect different individuals in different ways, depending on the rate used.

Single rate - basic

Chart 12⁵⁹

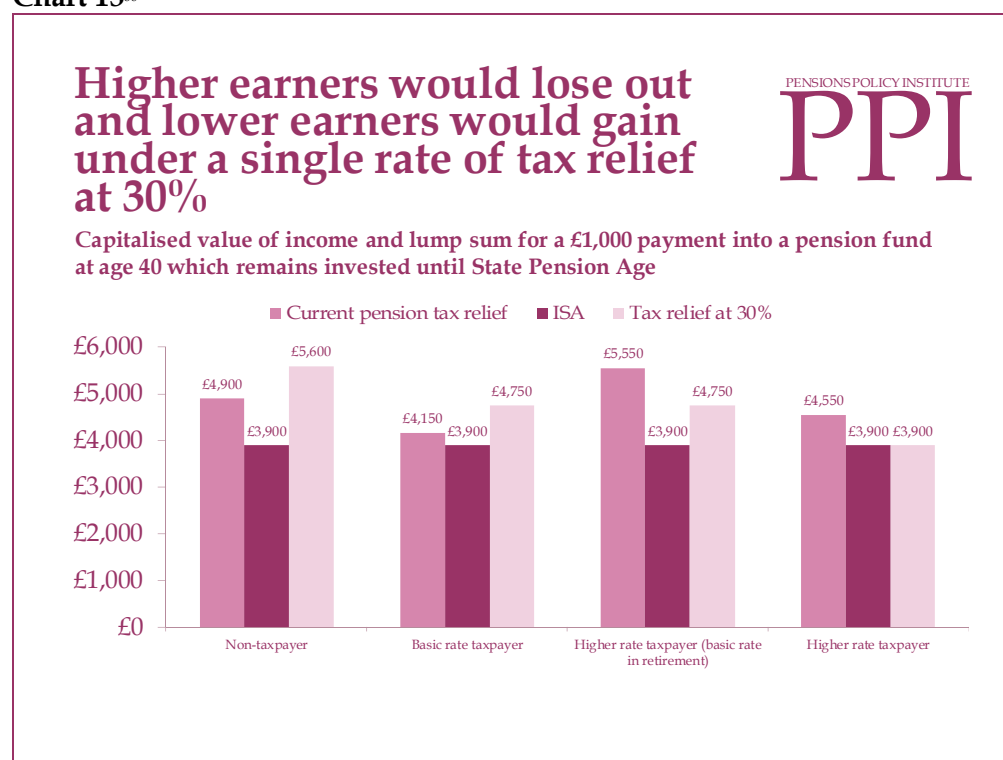


- Non-taxpayers and basic rate taxpayers would receive the same amount of tax relief under the current system and where tax relief is limited to the basic rate.
- Higher rate taxpayers who pay basic rate tax in retirement would see the capitalised value of their income and lump sum drop from £5,550 to £4,150 as they would receive tax relief at the basic rate rather than the higher rate. However, the tax-free lump sum means that they would still receive more than under an ISA system, which is considered to be tax neutral.
- Those people who pay higher rate tax both during their working lives and in retirement would see the capitalised value of their income and lump sum drop from £4,550 to £3,400. They would receive less than under the tax neutral ISA system, so be tax disadvantaged.

⁵⁹ Based on a contribution of £1,000 invested from age 40 to state pension age. This assumes a nominal rate of return of 6% per annum.

Single rate – 30%

Chart 13⁶⁰

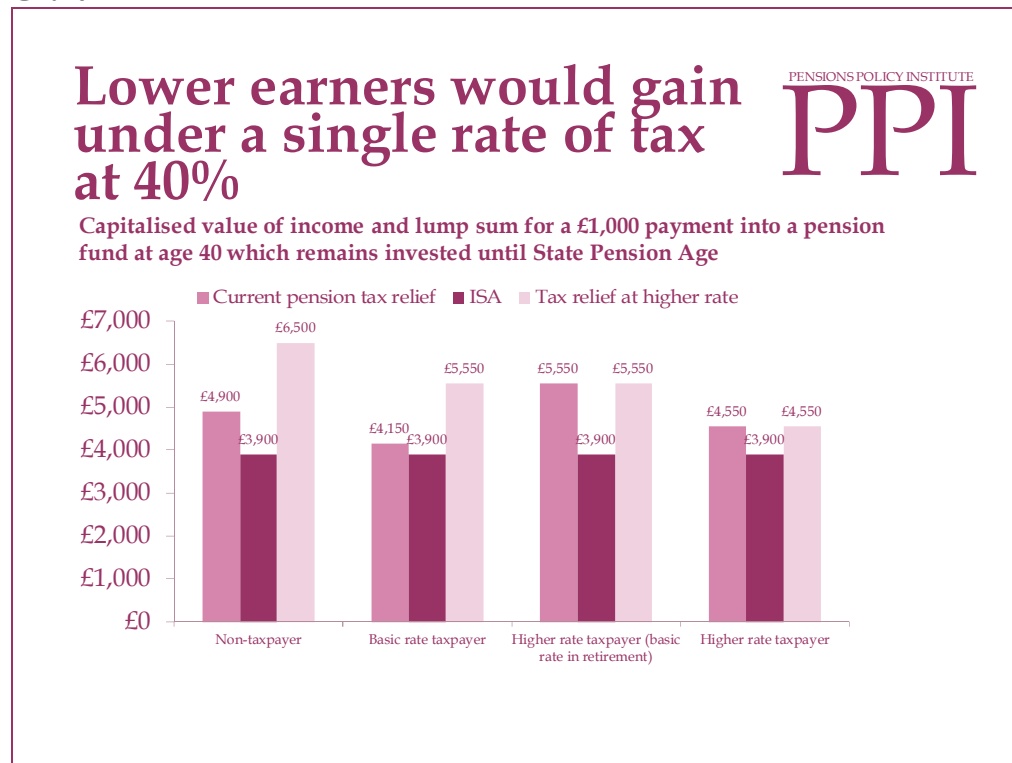


- Non-taxpayers would gain from a single rate of tax relief set at 30%, with the capitalised value of their income and lump sum increasing from £4,900 to £5,600, as they would receive tax relief at 30% rather than at the basic rate.
- Basic rate taxpayers would also gain from a single rate of tax relief set at 30%, with the capitalised value of their income and lump sum increasing from £4,150 to £4,750, as they would also receive tax relief at 30% rather than at the basic rate.
- Higher rate taxpayers who pay basic rate tax in retirement would see the capitalised value of their income and lump sum drop from £5,550 to £4,750, as they would receive tax relief at 30% rather than at the higher rate. However, the tax-free lump sum system means that they would still receive more than under the tax-neutral ISA system.
- Those people who pay higher rate tax both during their working lives and in retirement would see the capitalised value of their income and lump sum drop from £4,550 to £3,900, as they would also receive tax relief at 30% rather than at the higher rate. This is the same as they would receive under the tax-neutral ISA system. While the tax relief is lower than under the current system, the 25% tax-lump sum offsets this effect.

⁶⁰ Based on a contribution of £1,000 invested from age 40 to state pension age. This assumes a nominal rate of return of 6% per annum.

Single rate - higher

Chart 14⁶¹



- Non-taxpayers would gain from a single rate of tax relief set at the higher rate, with the capitalised value of their income and lump sum increasing from £4,900 to £6,500, as they would receive tax relief at the higher rate rather than the basic rate.
- Basic rate taxpayers would also gain from a single rate of tax relief set at the higher rate, with the capitalised value of their income and lump sum increasing from £4,150 to £5,550, as they would receive tax relief at the higher rate rather than the basic rate.
- Both higher rate taxpayers who pay basic rate tax in retirement and those who pay basic rate tax in retirement would see the capitalised value of their income and lump sum unchanged. They would still receive more than under the tax-neutral ISA system.

If the rate of tax relief were set at the basic rate, higher rate taxpayers who also pay higher rate tax in retirement would pay tax twice on a portion of their income; in this way this option would not be tax neutral as a large group of taxpayers would pay tax twice on a portion of their income.

⁶¹ Based on a contribution of £1,000 invested from age 40 to state pension age. This assumes a nominal rate of return of 6% per annum.

How easy would the resulting system be for savers to understand?

Under a single-rate system, the system would remain opaque and may, in fact, be more difficult for savers to understand as there would be no connection between the individual's marginal tax rate and their rate of tax relief.⁶² However, if tax relief is presented as matching contributions (Box 3), it may be more likely that people increase their understanding of the value of Government incentives which could at least partially offset the fact that those higher earners are receiving lower rates of incentive than in the current system of tax relief.

Box 3: Presenting tax relief as matched contributions

While a single tax rate may make pension tax relief fairer and incentivise lower earners, in particular, to save, it remains likely that lack of understanding around the working of tax relief would continue to dilute its impact. If a single tax rate were described as a system of matching contributions, for instance, the government contributing £1 for every £3 saved by the individual, the tangible benefit offered may be easier to understand. In turn, this might lead to a greater behavioural response. This is an approach that the Government has already adopted; as auto-enrolment is introduced, tax relief is described as a matching contribution. The underlying principle is that the individual contributes 4% of their salary, the employer contributes an amount equal to 3% of the employee's salary and the government contributes an amount equal to 1% of the employee's salary. Similarly, this is an approach that has been taken in other countries; for instance, a matching contribution was offered by the New Zealand government when they launched KiwiSaver, an initiative that looked to increase retirement wealth.

Matching rates have often been introduced alongside other innovations such as auto-enrolment, something which makes it difficult to assess the effectiveness of matching rates compared to tax relief. However, where matching rates have been offered in other areas, such as the UK Savings Gateway, where the Government offered 50p for each pound saved by the individual, matching was considered to be much more effective than tax relief or interest rates.¹

⁶² Kempson et al (2003)

How easy would it be to implement a single rate system in the existing pensions landscape?

While it is relatively straightforward to give tax relief at an individual's marginal rate, it is more difficult to give tax relief at a single rate. It would be difficult to operate Net Pay Arrangements⁶³ with a single rate of tax relief. In such cases employers could use alternate arrangements, which might require them to make changes to their payroll software. Alternately a compensatory mechanism could be used, for instance changes to the employee's PAYE code or the requirement for them to pay or claim back outstanding tax through the Self-Assessment system.

A single rate of tax would be more difficult to implement for Defined Benefit schemes and would also be less transparent than under the current system. In a Defined Benefit scheme, contributions are paid by the employer and employee into a common fund, which is invested to provide all retirement benefits. In the current system, unless there is a risk of the deemed contribution for an individual exceeding the Annual Allowance the deemed contribution is not calculated. Box 1 on page 11 gives an explanation of how the deemed contribution is calculated for Defined Benefit schemes.

If a single tax rate at the basic rate were introduced and pension contributions are paid from gross pay, higher and additional rate taxpayers will implicitly automatically benefit from tax relief at their marginal rate and will therefore face a tax charge. In turn, this will require employers to calculate the deemed contribution made by both the employer and employee for all higher and additional rate taxpayers. As the deemed contribution is based on the increase in value of the fund, the deemed contribution and the extra tax may not bear any resemblance to the employer's and employee's contributions made on behalf of that employee. As such, this system may not appear transparent to pension savers.

If a single tax rate of 30% were introduced, employers would be required to calculate the deemed value of contributions for all taxpayers. Similarly, if a single tax rate at the higher rate were introduced, employers would be required to calculate the value of their contribution for all basic and additional rate taxpayers who may receive a tax rebate or face a tax charge respectively. Again, the tax rebate or charge may not bear any resemblance to contributions made and the system may not appear transparent to pension savers.

⁶³ Net Pay Arrangements enable employees to make pension contributions by means of payroll deduction. The employer deducts the contribution from the employee's gross pay in the tax year the contribution is made and only deducts PAYE from their net pay. This arrangement enables pension tax relief to be given at the employee's marginal tax rate.

Behavioural response

One objective of tax relief is to incentivise saving. If the system changes we might expect behaviour to change in a number of ways:

- As the Government contribution to pensions changes, the rate of return on individuals' own pension contributions will change. This could lead to individuals changing their behaviour.
- It may affect perceptions and ease of use of the pension tax relief system. This may affect individual's interaction with the system (for instance, if they are required to pay extra tax at the end of the year).
- It may affect employers through administrative complexity and cost, and indirectly through their employees' perception of value of pensions.

However, even where a change to the rate of tax relief might influence behaviour important advantages will remain. Employers' pension contributions are not subject to National Insurance contributions and pensioners would continue to be able to withdraw the 25% tax-free lump.

The previous analysis in this chapter assumes that people do not change their behaviour as a result of changes to rate of tax relief. However, in practice, such a change would affect the real post-tax rate of return that individuals can expect to receive on their pension contributions. The value of a contribution increases if an individual is offered more tax relief, leading to a larger pension fund at retirement. Consequently, pension saving will, in theory, become more or less attractive to different income groups, potentially leading to an increase or decrease in the amount of contributions made.

Restriction of tax relief to the basic rate or to 30% may lead those people who currently receive higher rate tax relief to divert their savings from pensions. A single rate of tax relief at 30% may incentivise lower and middle earners to make more pension saving. The introduction of a higher single rate of tax relief may incentivise lower and middle earners to make more pension saving. The following analysis attempts to quantify the potential impact of this in terms of the cost and distribution of tax relief. This section includes some scenarios based on behavioural assumptions. However, rather than estimating exactly how individuals will react to changes, these look at the implications in terms of the cost and distribution of tax relief if individuals respond to the changes in a particular way.

The evidence surrounding the potential behavioural changes in response to changes in tax relief is limited. Such literature as exists relates to the first of the behavioural response, the direct input of a change in the rate of return on saving (Box 4).

Box 4: Behavioural assumptions

The assumptions used in the report are initially based on similar work carried out by PwC for the ABI report *Bridging the savings gap* (2005). The authors of this report conducted a comprehensive review of literature available at the time around the effect of rate of return changes on total savings to conclude that the effect is relatively modest, at least for higher earners (there is little evidence around the impact on lower and mid earners).

From a review of literature on the subject, ABI (2005) PwC formulated assumptions regarding total pension elasticity, i.e. the extent to which the level of pension saving is affected by different rates of return, for different income groups – this took in to account the offset of other savings. This calculates the impact of a 1% change in the real post-tax rate of return. This elasticity varied according to the type of saving, ranging from 4% for Defined Benefit workplace pensions to 28% for Defined Contribution personal pensions. The rates are included in the table 4 below. The report also assumed that an increase of 1% in the post-tax rate of return for pension saving would result in a 7% increase in the number of pension savers, saving at the average contribution rate for personal pension savers.

Table 4: Elasticity rates by income group and pension type

	Income Group					
	9,000	15,000	25,000	33,073	38,072	50,000
DB	4.3	5.0	6.0	7.1	7.1	12.0
DC Occ	7.1	8.3	10.0	12.5	12.5	20.0
GPP	7.1	8.3	10.0	12.5	12.5	20.0
Persnl	10.0	11.7	14.0	17.5	17.5	28.0
Slf Emp	10.0	11.7	14.0	17.5	17.5	28.0

The table above shows that 1% change in the real post-tax rate of return for pension saving will result in a change of between 4% and 28% in pension contributions, depending on the income group and pension type. In this report, these assumptions have been applied to HMRC data.

The following is an example of a behavioural response to the change to the rate of return:

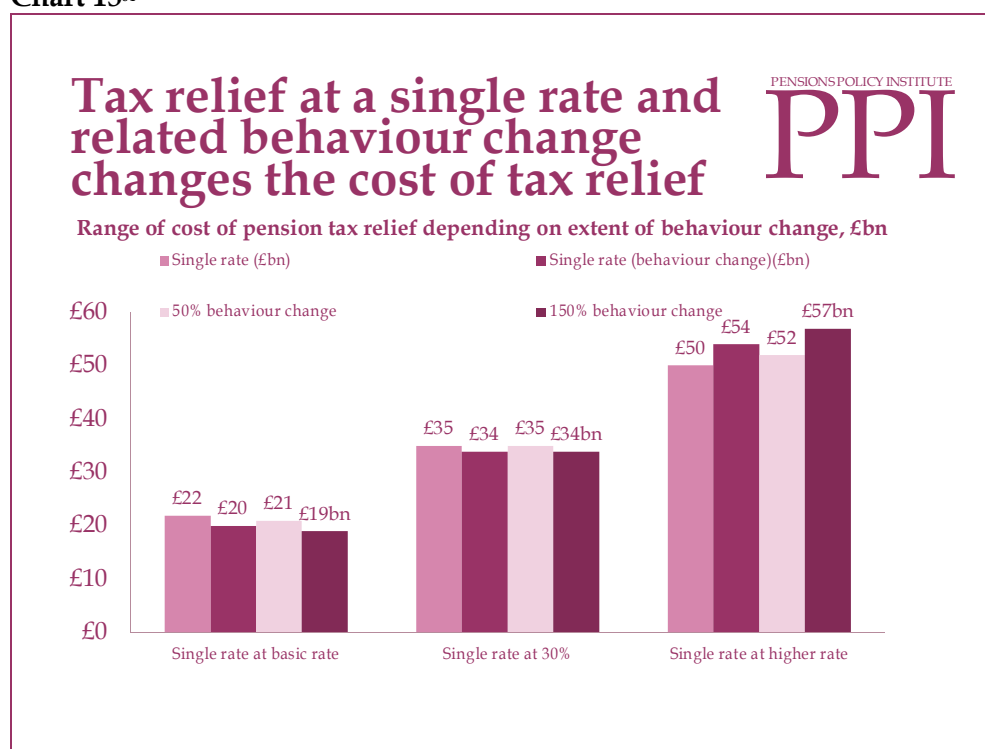
- Example: A 40-year-old basic rate taxpayer earning £20,000 who is a member of a DC occupational pension scheme, retiring at 67 in 27 years.
- If she were awarded tax relief at 30% then the value of a contribution of £100, (£80 + £20 tax relief) would instead be £114 (£80 + £34 tax relief) in her fund
- This leads to a 14% increase in the value of the contribution to the fund
- This translates into an annual increase in the rate of return over her time to retirement of $1.14^{(1/27)}=1.005$, this is a 0.5% increase in the rate of return

The following analysis takes into account individuals' reaction to changes in the rate of return. There are no reliable sources of evidence as to how individuals may respond to the way in which their interactions with the tax system would change, or on employer's reactions to developments such as increased administration and costs. As these responses are uncertain, and to try and account for the other behaviour changes, sensitivity analysis around the response to changes in the rate of return has been undertaken to try and give an indication as to the possible range of outcomes allowing for some of the other behavioural responses. For each of the single rate options we estimate how costs may change if behaviour changes and then how the distribution of tax relief may change. While the section on costs looks at a range of costs, the section on the distribution uses the central behavioural assumption. The impact of a range of behavioural assumptions is at Annex 7.

Costs would vary if behaviour changes

Chart 15 shows how the cost of a single rate of tax relief might vary with any changes to behaviour change. For each tax rate, this compares the resulting cost of tax relief if the behavioural response were 50% less and 50% more than the standard assumption.

Chart 15⁶⁴



While the current cost of tax relief is £35 billion, a single rate at the basic rate could reduce this to £22 billion where no behavioural change is assumed, and between £19 and £21 billion where a behavioural response is assumed.

⁶⁴ PPI analysis

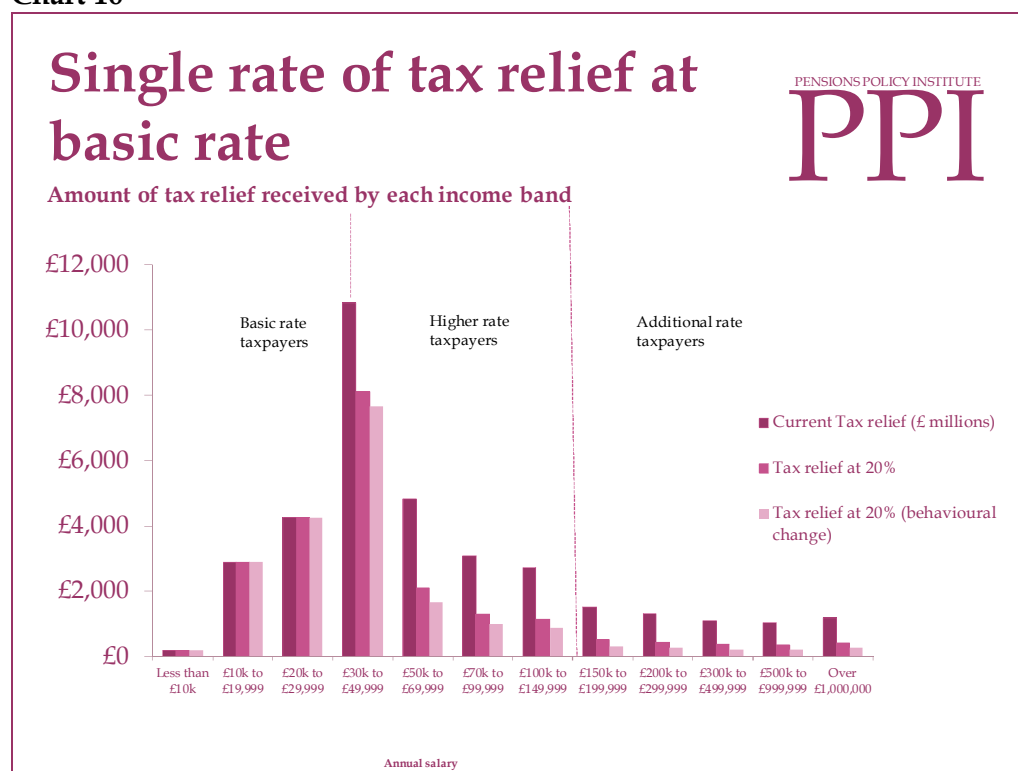
The cost would remain at £35 billion under a 30% single rate where no behavioural change is assumed, and remain at between £34 billion and £35 billion where a behavioural response is assumed.

A single rate at the higher rate would increase the cost to £50 billion where no behavioural change is assumed, and between £52 billion and £57 billion where a behavioural response is assumed.

Single rate set at basic rate

Chart 16 shows how the distribution of tax relief might be affected by limiting tax relief to the basic rate.

Chart 16⁶⁵



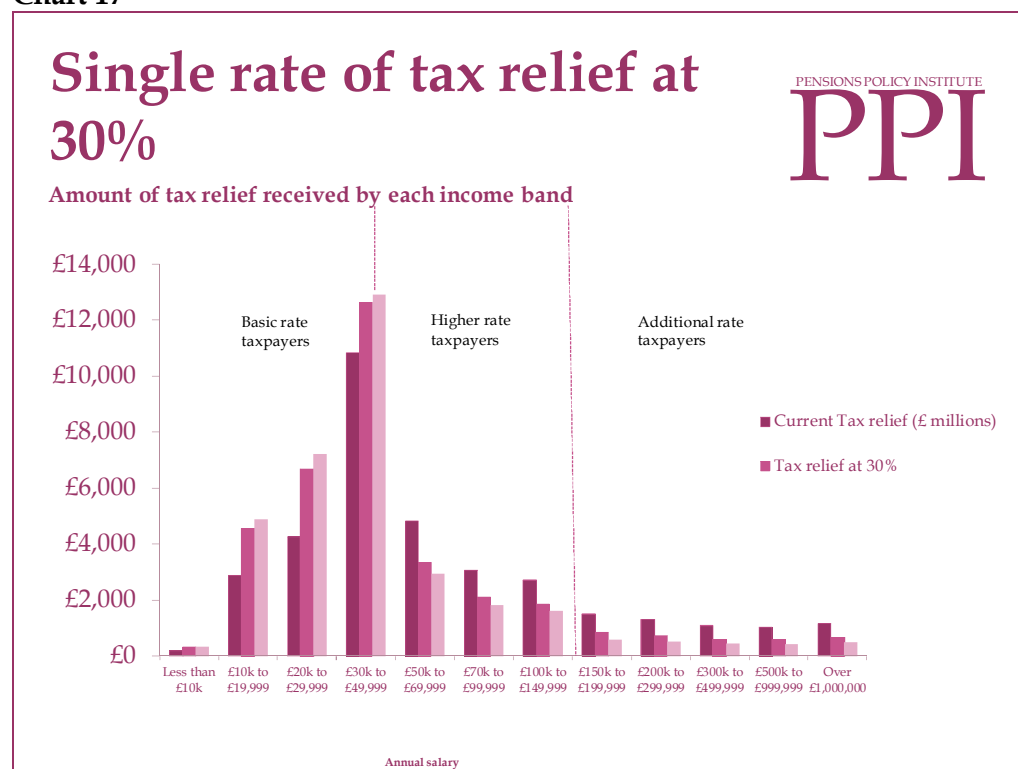
Where no behaviour change is assumed, 50% of tax relief would go to people who pay higher or additional tax, compared to 70% in the current system. As higher rate taxpayers no longer attract the same amount of tax relief, behavioural change leads to an additional reduction in the amount of tax relief going to higher rate and additional rate taxpayers from 50% to 45%. Consequently, higher rate taxpayers are estimated to cut their contributions. As such, a single rate at the basic rate would mean that pension tax relief is more evenly distributed and would reduce the cost of tax relief, however this would not improve the incentives for anyone to contribute to a pension, and will reduce the value of pension saving to higher earners.

⁶⁵ PPI analysis

Single rate set at 30%

Chart 17 shows how the distribution of tax relief might be affected by the introduction of a 30% single rate of tax relief.

Chart 17⁶⁶

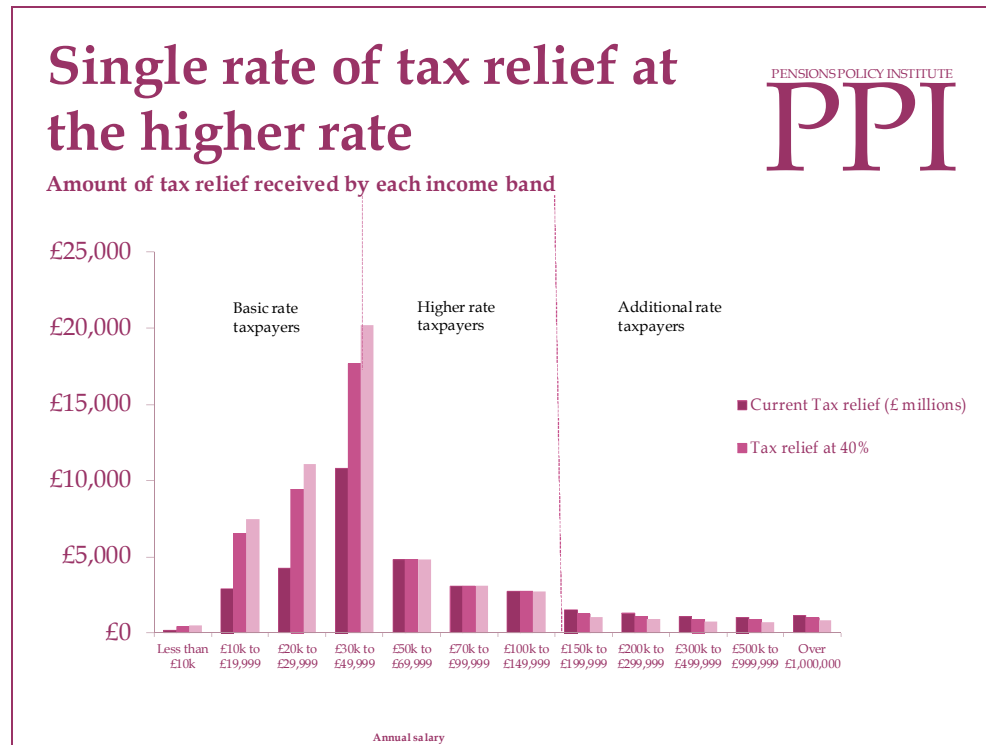


Where no behaviour change is assumed, 50% of tax relief would go to people who pay higher or additional tax, compared to 70% in the current system. Higher rate taxpayers would no longer attract the same amount of tax relief and basic rate taxpayers would attract more relief. However, in this scenario, behavioural change leads to an additional reduction in the amount of tax relief going to higher rate and additional rate taxpayers from 50% to 45%. Again, this would mean that pension tax relief is more evenly distributed and would reduce the cost of tax relief.

⁶⁶ PPI analysis

Single rate set at higher rate

Chart 18 shows how the distribution of tax relief might be affected by the introduction of a higher single rate of tax relief.

Chart 18⁶⁷

Where no behaviour change is assumed, 50% of tax relief would go to people who pay higher or additional tax, compared to 70% in the current system. In this option, all taxpayers receive tax relief at the higher tax rate. The greater change to the distribution of tax relief occurs as a result of the increase of tax relief for basic rate taxpayers; behavioural change leads to an additional reduction in the amount of tax relief going to higher rate and additional rate taxpayers from 50% to 45%.

Summary

This chapter has found that:

- Compared to the current cost of tax relief on contributions for employers, employees and individuals of £35 billion, and assuming no change in pension contributions, a single rate of tax relief at the basic rate of income tax on employers', employees' and individuals' contributions could cost £22 billion, a single rate at 30% could cost £35 billion and a single rate at the higher rate of income tax could cost £50 billion.
- It might be possible to make this option 'cost neutral' by changing other parts of the tax relief system. However, the tax-free lump sum is only worth £4 billion, so even removing this completely does not offset the cost.

⁶⁷ PPI analysis

The Annual Allowance would have to be significantly reduced, on the basis that the majority of basic rate taxpayers will already have relatively low contributions.

- The distribution of tax relief would be more equitable under a single rate of tax relief, with 50% of tax relief going to higher and additional rate taxpayers compared to 70% in the current system, assuming no change in contributions.
- Higher earners would lose out relative to the current system if a single rate of tax relief were set at the basic rate. A single rate at the basic rate would mean that higher rate taxpayers face a tax disadvantage unless they pay basic rate tax in retirement. However, it would not improve incentives for anyone to contribute to a pension.
- Low and mid-range earners would benefit while higher earners would lose out from a single rate of tax relief set at 30%. However, the 25% tax-free lump sum means that a single rate at 30% would be tax-neutral for higher rate taxpayers.
- Low and mid-range earners would benefit from a single rate of tax relief set at the higher rate.
- A single rate of pension tax relief may be more difficult to understand than the current system. However, if tax relief were presented as matching contributions this may be easier to understand.
- A single rate of pension tax relief would be more difficult to implement for members of both Defined Contribution and Defined Benefit pension schemes. While it is relatively straightforward to give tax relief at an individual's marginal rate, it is more difficult to give tax relief at a single rate.
- It would be difficult to operate Net Pay Arrangements with a single rate of tax relief. In such cases employers could use alternate arrangements, which might require them to make changes to their payroll software. Alternately a compensatory mechanism could be used, for instance changes to the employee's PAYE code or the requirement for them to pay or claim back outstanding tax through the Self-Assessment system.
- It may also be less transparent than the current system for Defined Benefit scheme members as any tax charge or rebate may not bear any resemblance to contributions made.
- Behavioural change as a result to changes to pension tax relief would affect the distribution and cost of tax relief.

Annex 1: General models and assumptions

General modelling

This report contains original modelling undertaken by the PPI. The modelling for each part of the analysis is described in devoted appendices; this appendix sets out the general principles and assumptions.

Assumptions

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 4.75%, in nominal terms.
- Expected investment returns of 3.0% in excess of prices, before charges, (corresponding to a nominal rate of 6%) representing a mixed equity/bond fund.

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

The analysis of the impact of the reduction of the Annual Allowance for defined contribution pension schemes requires an additional assumption for the annual management charge:

- Annual management charge on a pension fund of 0.77% of the funds under management.

Annex 2: Individual calculations

The report makes use of stylised case study calculations of the impact of tax relief and potential reforms on individuals. These calculations are used to illustrate:

- the difference in tax relief treatment between pension saving and other savings vehicles, and
- the possible impact of the change in the Annual Allowance on pension savers

The difference in tax relief treatment between pension saving and other savings vehicles

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 types of savings considered were:

- DC Pension scheme (an EET system)
- Independent Savings Account (ISA) (a TEE system)
- Savings Account, i.e. a regular bank account (a TTE system)

The calculation assumes a single contribution, of the equivalent of £1,000 of net income at age 40. The calculation does not factor in the impact of the Annual Allowance. This is then projected forward with investment returns to age 67 at which point the proceeds from the investment are considered.

The initial contribution is the equivalent of £1,000 of net income. For the ISA and Standard Savings account this means a straightforward investment of £1,000, however, for the pension scheme which gives tax relief on contributions, the equivalent of £1,000 of net income is an investment of

$$\text{Pension scheme contribution} = \frac{\text{£1,000}}{(1 - \text{tax relief rate})}$$

For example, where tax relief is offered at 20%, the contribution would be $\text{£1,000}/(1 - 0.2) = \text{£1250}$.

The investment is assumed to grow in line with the PPI's standard assumption of 6%, with an annual management charge of 0.77%p.a. applied.

Fund at end of year t

$$= \text{Fund at start of year } t \times [1 + 6\% \times (1 - \text{tax on return})] \times (1 - 0.77\%)$$

The savings account is the only savings vehicle considered that has a tax levied on investment returns it is assumed to be at the employee's marginal rate. For each of the other savings vehicles the tax on return is zero.

At age 67, when the fund is assumed to have matured for the sake of the comparison, the post-tax capitalised value of the proceeds of each of the funds

are compared. For the ISA and the savings account, which pay out the fund amount as a tax free lump sum, this is just the value of the fund at age 67. For the pension scheme it is assumed that the maximum allowed 25% of the fund is taken as a tax free lump sum, the remaining 75% would be converted into an income which is subject to tax. The income portion is therefore reduced by the assumed post retirement marginal tax rate.

The impact of the change in the Annual Allowance on pension savers

The Government's proposed reduction in the Annual Allowance from £50,000 to £40,000 could reduce the scope of Defined Contribution and Defined Benefit savings differently. Defined Contribution pension saving is limited by the amount of contribution being made to the scheme, whereas for Defined Benefit schemes the effect of the Annual Allowance depends on the growth in the value of the accrued pension.

Defined Contribution

The modelling of the impact of the Annual Allowance on DC savers was considered in terms of the fund that could be built up if contributions were limited to £40,000 a year, versus contributions of £50,000 a year.

The fund calculation assumptions were as set out in Annex 1, an investment return of 6%p.a. and an annual management charge of 0.77% of funds.

Fund at end of year t

$$= [Fund\ at\ start\ of\ year\ t \times (1 + 6\%) + contbn \times (1 + 6\%)^{\frac{1}{2}}] \times (1 - 0.77\%)$$

Defined Benefit

For a Defined Benefit pension scheme the actual contributions made in respect of a particular member may have little relation to the value of the benefits earned in a particular year, instead the Annual Allowance is compared against the Deemed Contribution. The deemed contribution compares the amount of accrued pension at the end of the year, with that accrued by the start of the year (allowing for growth in line with CPI).

For a Final Salary pension scheme, the Deemed Contribution therefore comprises:

- the new pension built up as a result of being in the scheme for one more year, and
- the real increase on all previously built up pension as a result of any pay rise over the year.

The higher the salary level, the higher both of these components will be. The second component is also dependent on the size of any pay increase over the year and the number of years of service that have built up.

The modelling considered members of a Final Salary pension scheme with an accrual rate of 1/60ths. CPI is assumed to be at the standard PPI assumed level of 2%.

Having identified salary level, number of years past service and pay increase as the key drivers of the Deemed Contribution, the modelling calculated the amount of pay increase required so that the Deemed Contribution would equal the Annual Allowance of £40,000 for a given set of salaries and years' service.

The salary levels considered were £40,000, £80,000 and £120,000. Service was assumed to be at levels between 5 and 35 years at 5 year intervals.

The Annual Allowance allows for any unclaimed allowance in the previous three years to be used to offset the current Deemed Contribution. This was allowed for in the modelling with the assumption that all pay rises in the previous three years were at the assumed average level of pay increases of 4.75% p.a.

Annex 3: Distributional calculations

The results presented in this report set out the impact on the level and distribution of tax relief to pension savers following potential reforms to the tax relief available on pension contributions. This Annex sets out the calculation methodology and assumptions used in producing these figures.

The following possible reforms to tax relief were modelled:

- Single rate of tax relief on contributions to pension schemes offered at the basic rate (20%)
- Single rate of tax relief on contributions to pension schemes offered at 30%
- Single rate of tax relief on contributions to pension schemes offered at the higher rate (40%)

Initial data

The HMRC and ONS publish information regarding the contributions to pension schemes in their Table 3.8.⁶⁸ This sets out the employee contributions which are subject to tax relief by the level of earnings. The level of earnings was used to calculate the marginal tax rate, which in turn was used to calculate the implied relief available on the employee contributions.

The calculations performed on Table 3.8 provided a distribution of tax relief on employee contributions by earnings band. In order to consider the impact of reforms on the total amount of tax relief on contributions, the employee figures were pro-rated up to the amount of the total tax relief on pension contributions set out in PEN 6, while keeping the same earnings distribution as had been established in the analysis of Table 3.8. This allows us a calculation of the distribution of net contributions to pension schemes and the associated tax relief awarded on those calculations by salary level.

Up-rating to allow for Auto-Enrolment

The main results of this paper are based on the projected post auto-enrolment world. The tax relief distribution is therefore updated in order to allow for the projected increase in pension saving resulting from auto-enrolment.

The DWP published a paper *Workplace Pension Reforms: Baseline Evaluation Report* which sets out the projected increase in participation as a result of auto-enrolment, after allowing for some employees choosing to opt out. The analysis of ASHE data on current participation rates, in combination with the projections from the DWP paper enabled calculation of salary-level specific participation increase factors.

These salary specific factors were applied to the PPI's calculated distribution of contributions and tax reliefs to produce a projected distribution of contributions and tax relief after the process of auto-enrolment is completed.

⁶⁸ www.hmrc.gov.uk/statistics/income-by-year/table3-8.pdf

Modelling Distributional impact of reforms to tax relief on contributions

The calculation of tax relief is possible when given a particular amount of contribution⁶⁹ and an applicable tax-relief rate, for example, in the case where Net contributions are held constant.

$$\text{Tax relief} = \text{tax relief rate} \times \frac{\text{Net Contribution}}{(1 - \text{tax relief rate})}$$

Therefore, taking the distribution of net contributions by salary level it is possible to overlay a tax-relief scenario to calculate the projected tax relief at each salary level and thereby create a revised distribution of tax relief.

In the case where Gross contribution is held constant the calculation of the post reform tax relief is:

$$\text{Tax relief} = \text{tax relief rate} \times \text{Gross Contribution}$$

Summing the tax relief over the entire distribution allows calculation of changes in the total level of tax relief on contributions.

Annex 6 sets out the use of gross and net contributions in the calculations.

Annex 4: Modelling gross and net contributions

Introduction

The benchmark analysis in this report assumes that contributions to the pension schemes are initially unaffected by the change in the rate of tax relief. However, the level of contribution that should be held constant can be estimated in more than one way. The total pension scheme contribution, or gross contribution, is made up of the net contribution plus tax relief. The complication arises as to whether, when the tax relief is adjusted, it should be the gross contribution or the net contribution that is assumed to remain constant.

Holding the gross contribution constant

If the gross contribution is held constant then it is assumed that the same amount of money flows into pension schemes, it is just a question as to how much of that money is tax relief and how much is net contributions.

For example, if a gross contribution of £100 was made to a pension scheme by a basic rate (20%) taxpayer, then, under the current tax relief system, this consists of £80 net contribution and £20 tax relief.

$$\text{Gross contribution} = \text{Net contribution} + \text{Tax relief}$$

$$£100 = £80 + £20$$

If the tax relief is changed to be 30%, then keeping the gross contribution at £100 would lead to a higher tax relief figure of £30 and would require a lower net contribution of £70 to attain.

$$\text{Gross contribution} = \text{Net contribution} + \text{Tax relief}$$

$$£100 = £70 + £30$$

In the case of a higher rate taxpayer, a reduction in the amount of tax relief would increase the amount of net contribution required in order to maintain a constant level of gross contributions.

Holding the net contribution constant

If the net contribution is held constant then a change in the rate of tax relief will affect the gross contribution. Applying a more favourable rate of tax relief will increase the gross contribution for a given level of net contributions.

For example, if we consider the basic rate taxpayer from the previous example, who makes a net contribution of £80, and receives £20 tax relief, leading to a £100 gross contribution. If we keep the net contribution constant, then a change in the tax relief to 30% would lead to £34 tax relief and a total contribution of £114.

$$\text{Gross contribution} = \text{Net contribution} + \text{Tax relief}$$

$$£114 = £80 + £34$$

In the case of a higher rate taxpayer, a reduction in the amount of tax relief, e.g. from 40% to 30%, would reduce the amount of gross contribution achieved from a constant level of net contributions.

Whether to use gross contributions or net contributions as benchmark

The benchmark results in the analysis in this report are based on keeping the contributions constant, but there is a question as to which contributions should be assumed to remain constant. As the discussion above has shown, the impact on tax relief differs depending on whether gross contributions or net contributions are kept constant.

For the purposes of this report we keep **gross contributions constant for defined benefit pension schemes** and we keep **net contributions constant for defined contribution pension schemes**. In deciding how to keep contributions constant, the characteristics of the different types of pension schemes were considered.

Defined benefit pension schemes

Defined benefit pension schemes use their contributions to meet and maintain the required funding level. The gross contributions being paid into the scheme are set out in advance. The amount required to finance the scheme does not depend on the tax relief system. Therefore the gross contributions should be held constant for the analysis of defined benefit pension schemes.

Defined contribution pension schemes

Defined contribution pension schemes do not have funding targets, there is therefore no need to maintain the level of contributions being paid into the pension scheme, so the argument used for defined benefit pension schemes does not apply.

Instead it was assumed that employees would be interested in maintaining the same level of take-home pay after making pension contributions into a defined contribution pension scheme. This means keeping the same level of net contributions, and allowing the impact of a change in the tax relief offered to fall on the gross contribution to the scheme.

Sensitivity of gross or net contribution assumptions

In order to understand the sensitivity of the results to the assumptions of whether gross or net contributions are assumed, the calculations in the main body of the report were replicated using assumptions that i) net contributions were held constant and ii) gross contributions were held constant. Table A1 sets out the tax relief on pension scheme contributions under each of the assumptions as to how contributions are treated.

Table A1: Cost of tax relief on pension contributions under various contribution assumptions

Contributions held constant	Current tax relief	20% flat rate	30% flat rate	40% flat rate
Benchmark in report	£35bn	£22bn	£35bn	£50bn
Net contributions	£35bn	£21bn	£36bn	£55bn
Gross contributions	£35bn	£24bn	£36bn	£48bn

Annex 5: Analysis of tax relief on lump sums

This appendix describes the assumptions and methodology used in producing analysis of tax relief on lump sums for this report. There were two stages to this work:

- Distributional analysis, which aims to find the distribution of lump sum sizes and individual marginal tax rates, and;
- Estimating the cost of tax relief on lump sums.

Distributional analysis

The value of tax relief to an individual taking a tax free lump sum from their pension wealth on retirement can be calculated as the combined size of lump sums taken from any pensions that they hold multiplied by their marginal tax rate. Suitable data in this area is not available to the PPI, so instead, PPI's Dynamic Model has been used to estimate potential lump sum sizes and marginal tax rates in retirement for today's population of over 50s based upon the pension wealth of respondents to the English Longitudinal Study of Ageing.

In order to achieve this, a number of strong simplifying assumptions are required, as a result of which the results should be treated as an approximation only:

- Individuals currently contributing to a private pension continue to do so at the same rate.
- Individuals not currently contributing to a pension, but who will be eligible for auto-enrolment, begin saving at the minimum contribution rates required under legislation.
- Prior to retirement, DC saving is increased in line with an investment return assumption of 6% nominal.
- All individuals are assumed to take their pension at state pension age (SPA).
- Individuals saving in DC schemes are assumed to purchase a single-life, level annuity after taking their full tax free lump sum entitlement of 25%.
- Where appropriate, DB members are assumed to convert 25% of their pension into a lump sum with a commutation factor of 12.

Under these assumptions each individual's potential lump size at SPA is calculated and expressed in 2012/13 earnings terms. Retirement incomes are also calculated, taking into account state pensions, private pensions and any taxable income from sources other than employment that a respondent has reported. This is then used to calculate the respondent's marginal tax rate at retirement based on the current tax system, with tax thresholds uprated to the date of retirement in line with average earnings growth. Marginal tax rates are multiplied by lump sum size to estimate the tax relief received by each individual.

Alternative policy scenarios

This report also considers two alternative scenarios, requiring behavioural assumptions to be made regarding how individuals respond to policy changes. In this report, the following assumptions have been made:

- **Scenario 1 - Lump sums are restricted to 20% of pension wealth.** In this scenario, individuals are assumed to reduce the lump sum taken from their pension to 20% from 25%. Marginal tax rates have been recalculated based upon the new income estimates for each respondent.
- **Scenario 2 - Tax-free lump sum entitlement capped at £36,000.** In this scenario it has been assumed that individuals continue to take a lump sum of 25% of their pension wealth, but only receive tax relief on the first £36,000. This means that marginal tax rates are unchanged from the current policy scenario. £36,000 has been calculated as the 75th percentile of lump sum entitlement in the base line scenario.

The analysis assumes that this applies to all existing pension saving, in practice it may only apply to future contributions and so initial savings would be much smaller. It would take a significant period of time for savings to reach the levels shown here. This also assumes no behaviour change. In practice, individuals may choose to take larger amounts of the pension fund as an annuity which would reduce the tax foregone on the lump sum but increase the amount of tax on pension income (so collection of tax on these would be delayed).

Estimating the cost of tax relief on lump sums

In order to estimate the cost of tax relief on lump sums using the results of the distributional analysis, first an estimate of the aggregate amount of lump sums in payment in 2012/13 was required. This was produced using a combination of PPI's Aggregate Model projections and data on retirement lump sum payments from the ONS publication *MQ5: Investment by Insurance Companies – Pension Funds and Trusts*.

Calculating the cost of tax relief and comparison with HMRC figures

The resulting cost estimate used in this report was obtained by using the results of the distributional analysis to estimate the cost of tax relief on lump sums as a proportion of lump sum payments in a given year.

The figure quoted in this report is £4bn in 2012/13. The most recent estimate of cost produced by HMRC is £2.5bn in 2008/09. Even allowing for the three year gap between the estimates, the HMRC figure is not directly comparable to the PPI estimate, because:

- HMRC have assumed 20% tax relief on all lump sums.
- Some of the assumptions used in producing the PPI 2012/13 estimate may not apply to 2008/09. In particular, the PPI estimate is calibrated so that retirement lump sums as a proportion of total benefit expenditure from unfunded public service pensions are consistent with levels seen in the scheme resource accounts from 2011/12. Analysis of earlier scheme

resource accounts suggests that this proportion is quite variable, so repeating the calculation based on 2008/09 levels of commutation may not produce the same result.

- The HMRC figure assumes that lump sums represent the same proportion of total expenditure for funded and unfunded schemes, whereas the PPI estimate does not.

There may be other differences in the methodologies and assumptions used in producing the figures.

Annex 6: Evidence table

The relevant literature is limited; the following sources explored a range of policies relevant to pension tax relief and behavioural response to these.

Table A2: Evidence table

Source	
<i>KiwiSaver: An Initial Evaluation of the Impact on Retirement Saving</i>	Approximately a third of the contributions made to KiwiSaver represented additional saving.
<i>The Effects of 401(k) Plans on Household Wealth</i>	Between 0 and 30 % of 401(k) balances represent net additions to private saving.
<i>Bridging the savings gap: an evaluation of voluntary and compulsory approaches to pension reform</i>	A review of related literature finds that a 1% increase in the post-tax rate of return might lead to an increase in savings of 3-7%.
<i>Saving in lower-income households A review of the evidence</i>	Little evidence to suggest that tax relief plays much of a role in the savings decisions of people on low incomes.
<i>Effectives of tax incentives to boost (retirement) saving</i>	Calculations show that, of contributions to Individual Retirement Accounts, between 3% and 9% is funded by reductions in consumption (i.e. represents new saving).
<i>The Saver's Credit: Issues and Options</i>	Early findings: survey of plan sponsors of 71% of 401(k) plans in the survey indicated that the Saver's Credit had increased participation in their plan's 401(k).
<i>The Effects of Tax-based Savings Incentives on Savings and Wealth</i>	This paper argues that previous studies around the impact of savings incentives have ignored factors such as pre-existing tastes for saving, leading them to overstate the impact of savings incentives. It concludes that little of the overall contributions to existing savings incentives have raised private or national saving.
<i>Taxation and Economic Performance, OECD Economics Department Working Paper No.176</i>	This paper reports a finding that an increase in real interest rates of between 4 to 6% would raise private savings by 1% of GDP. From this finding, the paper extrapolates that the elimination in OECD countries of a 40% capital-tax rate could raise

	private savings by around 0.5 per cent of GDP.
<i>Sandler Review</i>	This review reports a finding that only 15% of TESSA saving was new saving, and concludes that there is evidence that tax incentives can affect the allocation of saving, but there is little evidence that they increase the overall level of saving.
<i>Effective incentives for saving consumer research findings</i>	Awareness and understanding of the tax position of pensions is very low.
<i>Evaluation of CFLI and Saving Gateway Pilot Projects</i>	Most saving among lower earners was represented new saving.
<i>Do up-front tax incentives affect private pension saving in the United Kingdom?</i>	This paper explores the relationship between becoming a higher rate taxpayer and pensions saving; it finds that there is a small discontinuity between income and probability of contributing to a pension that occurs at the higher rate tax threshold. However, the paper concludes that this could also be due to 'signalling effect', where someone becoming a higher rate taxpayer acts as a signal that a person has reached a stage in their life when they should be saving for retirement.

Annex 7: Behavioural analysis and sensitivities

Change in behaviour as a result of changes in tax relief

The preceding analysis assumed that employees would maintain the same level of contributions in their pension scheme irrespective of the change in the tax relief rate offered. In reality, an increase in the level of tax relief offered may persuade an employee to increase their contributions, similarly, a reduced rate of tax relief may persuade an employee to reduce their contributions.

Further analysis was undertaken to allow for the way in which employees might respond to changes in tax relief.

There are two distinct types of individuals' saving behaviour that are considered in the behavioural analysis:

- Individuals who are already saving into a pension scheme who may change the amount they save, and
- Individuals who are not saving into a pension scheme but may be encouraged to as a result of tax relief reforms.

Methodology

A change in tax-relief regime will affect the real post-tax rate of return that individuals can achieve on their pension contributions. Consequently, pension saving will become more or less attractive to different income groups, leading to an increase or decrease in the amount of contributions made.

In order to reflect this in the distributional analysis for the PPI report, assumptions regarding 'pension saving elasticity' are required. Pension saving elasticity is defined here as:

Pensions saving elasticity = percentage change in pension contributions per percentage point change in the real post-tax rate of return on pension saving

In order to apply the savings elasticities, we must calculate the change in the rate of return on pension saving resulting from the change in tax relief treatment.

Calculating the implied change in the rate of return

A change in the tax treatment of contributions changes the value of the contribution to the pension fund, and therefore leads to a change in the pension fund at retirement. The impact of that change can be measured in terms of the amount of a change in the annual investment return on the fund that would be required in order to effect an equivalent change in the pension fund.

For example, consider a 40 year-old basic rate taxpayer who contributes £100 to a DC pension scheme, and who plans to retire at age 67 in 27 years' time. The £100 consists of £80 contribution and £20 tax relief. At retirement, in 27 years'

time this contribution would be worth £391 (assuming 6% investment return and 0.77% management charge). If tax-relief were awarded at 30%, the contribution would be £114, consisting of £80 contribution and £34 tax-relief. At retirement in £27 years' time this contribution would be worth £446.

The change in the tax relief has the effect of increasing the value of the contribution at retirement from £391 to £446. This can be expressed in terms of the equivalent increase in the annual rate of return that would be required in order to have the same impact.

additional annual rate of return

$$\begin{aligned}
 &= \left(\frac{\text{pension fund after tax relief reform}}{\text{pension fund before tax relief reform}} \right)^{1/\text{yrs to retirement}} - 1 \\
 &= \left(\frac{£446}{£391} \right)^{1/27} - 1 = 0.5\%
 \end{aligned}$$

This means that an increase in the investment return from 6.0% to 6.5% would have the same impact as the increase in tax relief from basic to 30%.

The calculation of the implied increase to the rate of return depends on the number of years the employee has left until retirement. For example, if our employee were 10 years from retirement instead of 27 years from retirement, the result would be a 1.3% implied increase to the annual rate of return.

It was assumed that the average age in each of the salary bands ranged from 35 for lower earner, to 45 for higher earners. This was the result of analysis of the average age of employees at each salary level using ASHE data.

Individuals who are currently saving

From a review of literature on the subject, ABI (2005) estimated that total savings elasticity is somewhere between 3 and 7%. In addition to this, the report recognised that, "an estimated increase in total savings is [...] the net result of a larger increase in pension contributions, offset in part by a reduction in other savings (or vice versa for a reduction in total savings)."

The pensions saving elasticity is calculated by dividing the total savings elasticity by the relevant offset effect. The results of this are presented in Table A3.

Table A3: Pension saving elasticity (total savings elasticity divided by offset)

	Median earnings of income group					
	9,000	15,000	25,000	33,073	38,072	50,000
DB (employed)	4.3	5.0	6.0	7.5	7.5	12.0
DC-Occupational (Employed)	7.1	8.3	10.0	12.5	12.5	20.0
DC-GPP (Employed)	7.1	8.3	10.0	12.5	12.5	20.0
DC-Personal (Employed)	10.0	11.7	14.0	17.5	17.5	28.0
DC-Personal (Self-employed)	10.0	11.7	14.0	17.5	17.5	28.0

Example:

Savers contributing into personal DC pensions in income group 1 (median earnings £9000) have a pensions saving elasticity of 10.0% from Table A2.

Assuming that:

- Their current average contribution rate is 8.0% of salary
- Switching to a particular tax relief system increases their real post-tax rate of return by 1.0%

This leads to a behavioural impact factor calculated as:

Behavioural impact factor

$$= 1 + (\text{pension saving elasticity} \times \text{increase in rate of return})$$

So the behavioural impact factor in this case would be $1 + (10 \times 1\%) = 1.1$

Then their average contribution rate under the revised tax relief regime is 8.8% of salary (8.0% $\times$ the behavioural impact factor).

Having calculated the increase (or decrease) in the implied rate of return that a change in tax relief policy would have on each of our data groups, those rate of return changes are translated into an impact on savings using the elasticities in table A3. The pension contributions are then adjusted by the resulting impact factors.

Individuals who are not currently saving

The other impact on saving rates of a higher tax relief rate may be to encourage people, who would otherwise not save, to become savers. We have again used the assumption from the ABI report that an increase of 1% in the post-tax rate of return for pension saving would result in 7% of people not currently saving to becoming pension savers.

So for example, if currently in a particular group there are 1000 people saving out of a possible 1300, then a change to the tax relief that would increase the

implied rate of return on saving by 1% would lead to a further 21 people taking up saving ($7\% \times \text{number of people not saving} = 0.07 \times (1,300 - 1,000) = 21$).

The new savers are assumed to save at the average rates of saving for pre-reform savers. This means that if the existing savers are assumed to increase their saving, the new savers do not start saving at the new higher average rate.

Sensitivities

The report contains sensitivity of the behavioural analysis. This analysis varies the power of the behavioural impact; what would happen if the behavioural response was 50% less, or 50% more than the standard assumptions.

The sensitivity figures are calculated by applying an exponent to the behavioural impact factors calculated above.

$$\text{sensitivity behavioural impact factor} = \text{behavioural impact factor}^x$$

Where x is either 50% or 150% as appropriate.

The outcomes of the introduction of a single rate of tax relief could be different if, for instance, people reacted to a greater extent to the changes to tax relief, and if individuals and employers responded to the way in which the tax relief system operates. This aims to give an indication of how much behaviour would need to change to have a substantial impact on the overall levels of tax relief on pension contributions above the direct impact.

Charts A1 to A3 show the results from sensitivity analysis for the each single tax rate. For each tax rate, these compare the resulting distribution of tax relief if the behavioural response were 50% less and 50% more than the standard assumption. These demonstrate a modest impact of any changes to assumptions around saving elasticity.

For instance, Chart A1 shows how the distribution of tax relief would vary if the behavioural response to the single rate of tax at the basic rate were 50 % more or 50% less than the standard assumption. The cost of tax relief would decrease to between £21 billion and £19 billion

Chart A1

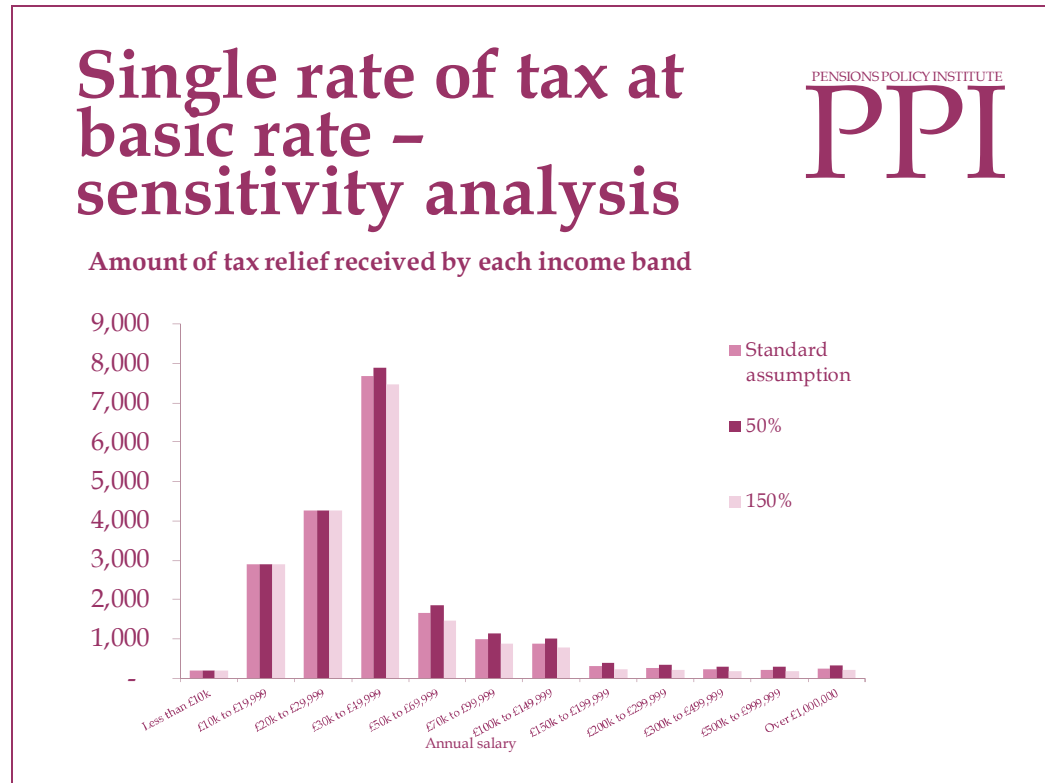


Chart A2 shows how the distribution of tax relief would vary if the behavioural response to the single rate of tax at 30% were 50 % more or 50% less than the standard assumption. The cost of tax relief would remain at around £34 billion.

Chart A2

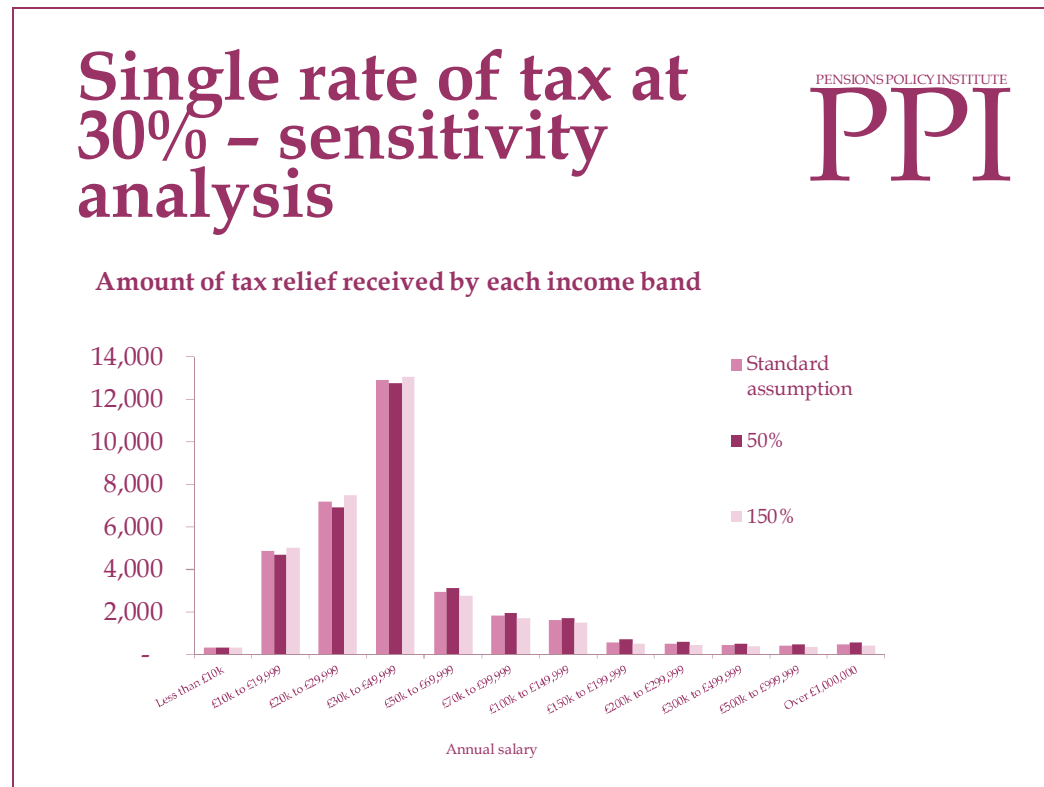
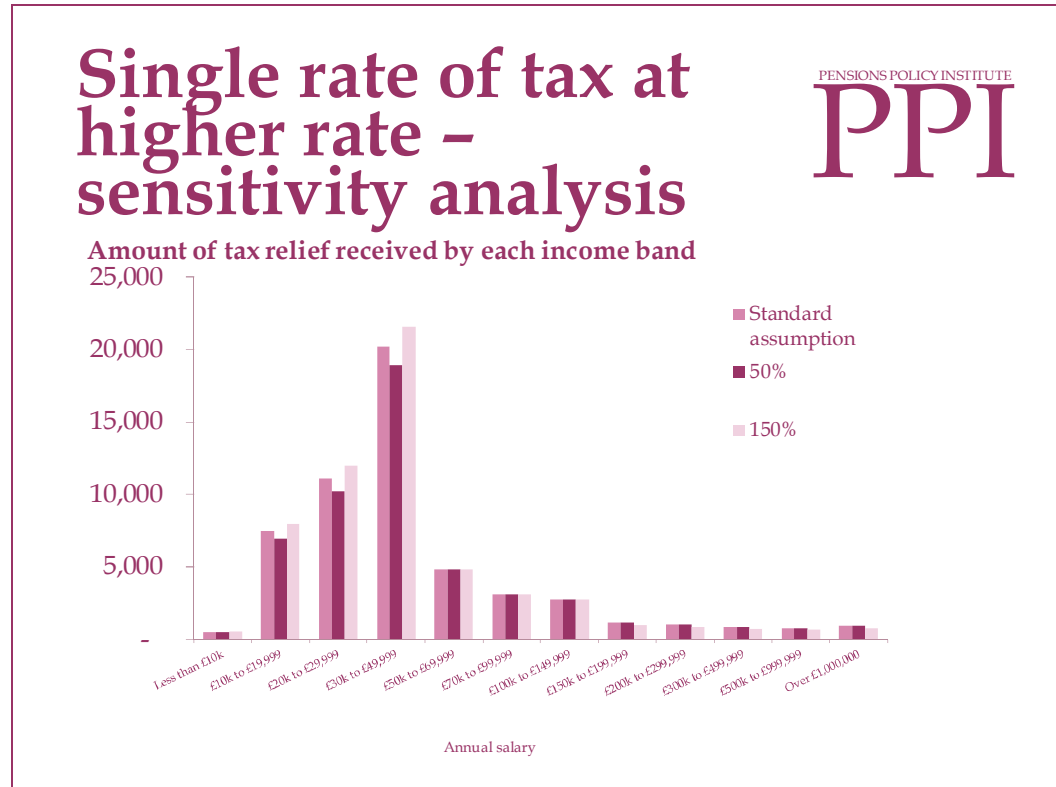


Chart A3 shows how the distribution of tax relief would vary if the behavioural response to the single rate of tax at the higher rate were 50 % more or 50% less than the standard assumption. The cost of tax relief would increase to between £52 billion and £57 billion

Chart A3



Acknowledgements and Contact Details

The Pensions Policy Institute is grateful for input from many people in support of this paper, including:

Philip Duggart	Steve Hitchiner	Craig Berry	Jemma Metcalf
Jane Vass	Rhoslyn Roberts	Julie Elsey	Leandro Carrera
Matthew Norton	Anthony Tomei	Jackie Wells	Michael Pomery
Darren Warren	Charlotte Clark	Jon Prothero	
David Zentler-Munro			

Editing decisions remained with the author who takes responsibility for any remaining errors or omissions.

The Pensions Policy Institute is an educational charity promoting the study of retirement income provision through research, analysis, discussion and publication. The PPI takes an independent view across the entire pensions system.

The PPI is funded by donations, grants and benefits-in-kind from a range of organisations, as well as being commissioned for research projects. To learn more about the PPI, see: www.pensionspolicyinstitute.org.uk

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The PPI is grateful for the continuing support of its Platinum & Gold members:

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This paper uses data from the English Longitudinal Study of Ageing (ELSA). The data were made available through the UK Data Archive (UKDA). ELSA was developed by a team of researchers based at the National Centre for Social Research, University College London and the Institute for Fiscal Studies. The data were collected by the National Centre for Social Research. The funding is provided by the National Institute of Aging in the United Kingdom, and a consortium of UK government departments co-ordinated by the Office for National Statistics. The developers and funders of ELSA do not bear any responsibility for the analyses or interpretations presented here.

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Published by
PENSIONS POLICY INSTITUTE

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www.pensionspolicyinstitute.org.uk
ISBN 978-1-906284-26-8