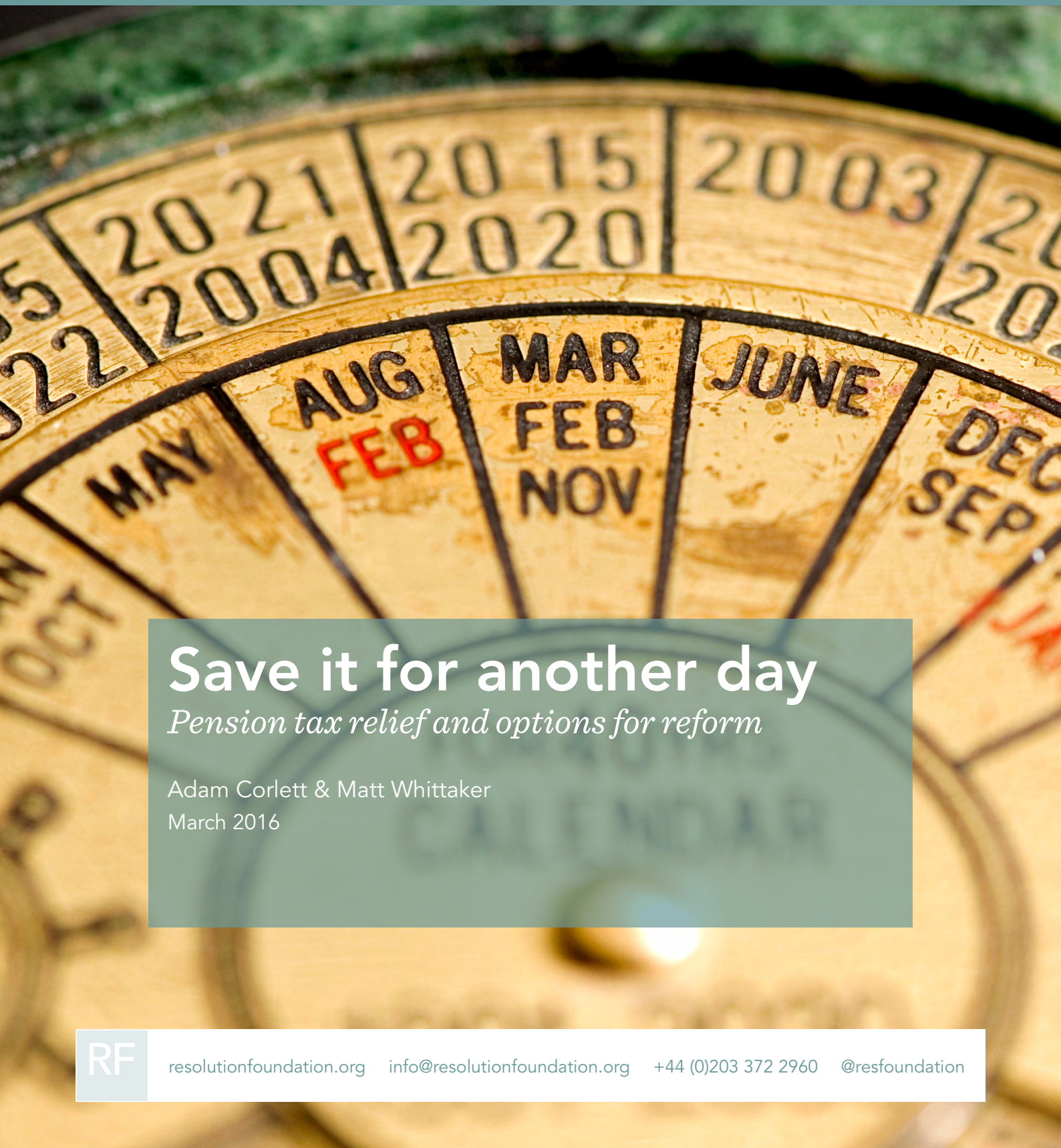
RF

Resolution Foundation
REPORT



Save it for another day

Pension tax relief and options for reform

Adam Corlett & Matt Whittaker

March 2016

Contents

Executive Summary

The Treasury has reportedly backed away from pension tax reforms, at least temporarily. Given the scale of existing tax relief, its particular benefits for higher income savers, and the potential wider impact of any change, this is perhaps understandable. But there remains a strong case for making the current system cheaper, fairer and better targeted. It is an agenda that should be revisited.

The current system and the case for change

Despite recent improvements in pensioner living standards, particularly compared to working age households, there is a great need for higher and more equal private pension incomes in retirement. This is particularly so given continuing increases in life expectancy and the shifting of risk to employees due to the decline of defined benefit schemes. In the past, pension tax relief has been seen as the policy lynchpin to encourage people to save through pensions. But there are a range of reasons for thinking that reform might be warranted.

First is the significant cost to the Treasury which amounted to £48 billion in foregone income tax and National Insurance in 2014-15. It is true that a key part of the current pension income tax system is that taxation is deferred until retirement, and in the same year £13 billion was raised from today's pensioners. So not all of the apparent costs are down to government largesse. But the fact that most higher rate taxpayers become basic rate taxpayers in retirement, and over half of pensioners pay no tax at all, means that this approach provides special treatment for pensions and lowers the lifetime taxation of high earners. And this overall pension tax relief figure includes some explicit tax breaks – the tax-free lump sum on drawdown and National Insurance tax exemptions for contributions – that together cost £18 billion a year.

Second, while low earners should be the state's priority in boosting the adequacy of savings, the benefits of pension tax incentives flow primarily to higher earners. In 2013-14, higher and additional rate taxpayers made up around 8 per cent of the 16+ population, accounted for 30 per cent of pension savers, made 45 per cent of employee pension contributions yet received 63 per cent of tax relief.

And the current pension tax system is complex, with its range of different treatments depending on whether contributions are made by the employer or employee (which provides a lucky few with the loophole of salary sacrifice) and whether the tax in question is income tax or National Insurance.

Finally, recent innovations in pensions policy raise further questions about the justifications for the current approach. Workplace auto-enrolment is transforming the pensions saving landscape – boosting saving more effectively than decades of tax relief. And the removal of the need to use one's pension pot to purchase an annuity has undermined the argument that generous pension tax breaks are needed to compensate for the relative lack of flexibility of this form of saving.

It is reasonable therefore to ask whether the current system is the best we can do. The answer is undoubtedly that it is not.

Redistributing tax relief within the current framework of deferred taxation

Given that very few pensioners pay higher rates of tax in retirement, there is a strong argument for limiting the rate of tax relief for pension saving, potentially establishing a single rate of relief for all savers. This could, if set at the right rate, both deliver substantial savings for the Exchequer and boost the saving incentive for the majority of pension savers. But it would mean large losses for higher income savers.

We find that the extreme example of a 20 per cent flat rate of relief would raise £9 billion a year from higher and additional rate paying pension savers. However, a person who was a higher earner throughout their working lives might see their after-tax private pension savings reduced by almost a quarter.

We find that rates of 30 per cent and 33 per cent, while more generous, would cost the government money as the success of auto-enrolment is expected to significantly boost the number of pension savers that pay income tax at the basic rate. This has the effect of lowering the revenue-neutral flat rate to 28 per cent.

A rate of 25 per cent would raise around £4 billion a year, as well as boosting the pension savings of basic rate taxpayers. With this rate a low earner on the National Living Wage would have a pension pot around 7 per cent higher in retirement, though higher rate taxpayers would still experience substantial

losses. And despite the distributional and fiscal benefits, such a scheme would not be trivial to implement. And – as with all tax expenditures – it is important to look at the relative effectiveness of other ways to spend £4 billion supporting lower income savers.

We also look at the impacts of providing relief for the employee National Insurance paid on employee (and self-employed) pension contributions, and find that this would cost around £2 billion. Our example of a National Living Wage earner might see their ultimate pension pot boosted by 9 per cent.

ISA-style pension reform

A flat rate or similar scheme would be a big tax change and challenging for the pensions industry. But even more radical would be a system of up-front ISA-like taxation as mentioned by the Chancellor in the last Budget. Such a 'Tax-Exempt-Exempt' system would mean that new pension contributions were made out of after-tax income, but pensions were exempted from taxation when drawn down.

Such a scheme would very likely involve a matching rate, such as a 50p government contribution per £1 saved, or other bonus. Indeed, for the many basic rate taxpayers who become non-taxpayers in retirement, the current pension saving system is one of zero taxation. For a system of up-front taxation to leave them no worse off a matching rate of at least 25 per cent (sufficient to cancel out the income tax paid on their contribution) would be required. But it is assumed that there would be a cap on such matching – for example a £1,000 government contribution per year – given the public cost and the poor rationale for unlimited subsidy.

The inability to defer taxation until old age – together with the abolition of the tax-free lump sum – mean that an ISA-style approach would significantly raise taxes for higher earners. Even with a matching scheme that gave them £1,000 per year for their entire working lives, they would be worse off in retirement than under the current system. However, the pension pots of low and middle earners could be given a substantial boost.

The impact on the public finances might also be positive, particularly in the short term as up-front taxation for new contributions would for many decades presumably co-exist with taxation of pension draw-down for pre-existing

savings. But this would partially be a temporary flattering of the government's headline borrowing figures. And an ISA-style system as described would not tax the returns on investment, meaning it could create significant further fiscal risk. Additional revenue might be raised by ending or limiting the exemption of employer contributions from National Insurance, though this might further reduce pension pots.

Despite the potential advantages, the extent of the shake-up and the requirement for two systems to run in parallel means that this is not something that should be pursued in haste or for the wrong (short term public finance) reasons. Furthermore, part of taxing pensions "like ISAs" might mean increased access to pension pots at any age. This has some merit and would further reduce the case for public subsidy, but the risks for individuals and the whole financial industry would be increased still further.

Conclusion

The government was right to look at reform and there are good arguments for change: whether that be through reformed rates of income tax relief, up-front taxation with matching, or National Insurance changes. That reform has now been delayed, but the silver lining is that this is a good opportunity for further consideration and consultation given the risks involved. Pension tax reform shouldn't be rushed, but nor should it be abandoned.

Section 1

Introduction

Following on from his surprise decision to introduce new pension drawdown freedoms at Budget 2014, the Chancellor used last year's Summer Budget to launch a consultation on reforming tax relief on pension contributions. The motivation was twofold: to contain the costs of relief and to improve incentives to save. With the population ageing and a raft of recent reforms – such as auto-enrolment – shifting the savings landscape, this focus is understandable. And it matters: since 2010, private pensions have been the single largest source of income in retirement, overtaking the state pension.

This note explores the case for change and the potential implications of two specific options for reform: flat rate tax relief and a shift to taxing pension income on the way out rather than the way in. In doing so, we focus particularly on the scope for different approaches to improve the progressivity of tax relief while also being mindful of the significant practical considerations involved in any major reform. Although the 2016 Budget is now unlikely to include pension tax reform, there remains a strong case for change.

Despite significant increases in pensioner incomes over recent years – with typical incomes rising more than ten times as fast as working-age incomes since 2002 – too many households face substantial financial pressures in retirement. For example, it remains the case that around one-in-six pensioner households (16 per cent) fall below an *absolute* measure of poverty (after accounting for housing costs).[1]

Worryingly, government estimates suggest that the savings profiles of over 12 million people in the current workforce mean that they too are likely to face 'inadequate' income in retirement.[2] This problem is of course most acute for those on low and middle incomes. In 2013-14, two-thirds of adults in such families who had worked at some point in their lifetime recorded having no pension or only a frozen pension. Low to middle income households lack other forms of savings too, with roughly 70 per cent holding less than one month's income in savings and 43 per cent saying they would like to save at least £10 per month but cannot afford to do so.[3] Homeownership – which can provide another form of income in retirement (and which as a minimum reduces housing costs once the mortgage is paid off) – has also declined most rapidly among those on low to middle incomes.

Against this backdrop, and with life expectancy continuing to rise and the availability of defined benefit pension schemes falling steadily, encouraging broad private pension saving in a way that doesn't undermine the sustainability of the public finances perhaps matters more than ever. Pension inadequacy has long been recognised as a problem, and sits at the heart of the government's attempts to incentivise higher levels of saving. But the current approach is increasingly under question. There are at least three reasons for thinking that reform might be warranted.

[1] DWP, *Households Below Average Income: An analysis of the income distribution 1994/95-2013/14*, 2015

[2] Measured in terms of the replacement ratio of pension income to income during their working life. DWP, *Framework for the analysis of future pension incomes*, September 2013

[3] A Corlett, D Finch & M Whittaker, *Living Standards 2016: The experiences of low to middle income households in downturn and recovery*, Resolution Foundation, 2016

First, the current approach is very expensive. Gross pension tax relief is projected to have amounted to just over £34 billion in 2014-15, with net relief (that is, once the income tax received on pensions in payment is accounted for) standing at around £21 billion.[4] Adding in the costs associated with National Insurance exemptions, the total net cost had risen from 1.4 per cent of GDP in 2001-02 to 2.2 per cent in 2007-08 – an increase of over 80 per cent in real terms – before new measures were introduced to limit these costs. In 2014-15, they still amounted to around 1.9 per cent of GDP.

Secondly, the regime is regressive too. The nature of tax relief is more favourable to higher earners both because they have higher marginal tax rates (and therefore qualify for more relief) and because such individuals are more likely to have higher levels of pension contributions. In 2013-14, higher and additional rate taxpayers made up around 15 per cent of all taxpayers and just 8 per cent of the total 16+ population.[5] Yet they accounted for 30 per cent of pension savers, made 45 per cent of employee pension contributions and received 63 per cent of tax relief.[6]

Thirdly, the key motivations for applying tax relief – to compensate savers for locking savings into long-term pensions and to encourage people to save more than they otherwise would – appear to have been undermined by the significant shifts in the pensions landscape that have occurred over recent years.[7] For example, new 'freedoms' announced in Budget 2014 and introduced from April 2015 mean that pensions now provide much more flexibility – at least in the drawdown phase. The requirement to annuitise was one of the arguments for providing a financial incentive to save through pensions: now that the entire pension pot can be taken as a lump sum from age 55, it is less different to other forms of savings. Similarly, the roll-out of auto-enrolment has introduced millions of new savers to the pensions system, raising questions over the continued efficacy of channelling significant sums of money into financial incentives.

That's the context for the government's consultation on options for reform of the tax relief system.[8] Its document stated that it was open to maintaining the current system or introducing relatively minor reforms to annual and lifetime allowances. However, two alternatives have dominated discussion in the run-up to Budget 2016: a flat rate of income tax relief and an even more radical move to up-front ISA-like taxation. Both could bring advantages in terms of cost and progressivity, but equally both would have drawbacks – not least in terms of the practical considerations of transition.

Despite having expressed a clear preference for shifting towards a pension ISA, reports suggest the Chancellor will not now present any changes at the forthcoming Budget. However, reform may yet return to the agenda later in the parliament. Although the implications of any such changes will of course depend on the precise details, this note uses Pensions Policy Institute modelling to illustrate the potential outcomes associated with a range of variations of the two main options for reform discussed to date. More specifically:

» Section 2 looks at the current approach to pension tax relief. It sets out the mechanics of the regime and, by way of exploring the case for change, looks at associated savings trends, fiscal costs and distributional outcomes.

[4] HMRC, *Personal Pensions Statistics*, 26 February 2016, PEN6

[5] HMRC, *UK Income Tax Liabilities Statistics: 2012-13 Survey of Personal Incomes, with projections to 2015-16*, May 2015, Table 2.1

[6] RF estimates using HMRC Tables 3.3 and 3.8

[7] In many cases building on the Turner Report of 2004-06.

[8] HM Treasury, *Strengthening the incentive to save: a consultation on pensions tax relief*, July 2015

- Section 3 examines the impacts of various illustrative flat rate schemes, as well as the case for increasing National Insurance relief on pension contributions.
- Section 4 focuses on the costs and benefits of a radical move to up-front ISA-like taxation for pensions, including the possibilities of matching schemes and further liberalisation of pension withdrawal.
- Section 5 offers some conclusions.

Annexes 1 and 2 describe the Pensions Policy Institute model used throughout the report.

Section 2

The current system and the case for change

Despite improvements in pensioner incomes over recent years, too many find themselves with inadequate income in retirement. In this section, we explore the way in which the current system of pension tax incentives attempts to encourage saving and outline the fiscal and distributional outcomes associated with this approach. In doing so, we highlight the thinking underpinning the case for reform.

Despite some improvements, pension inadequacy remains a problem

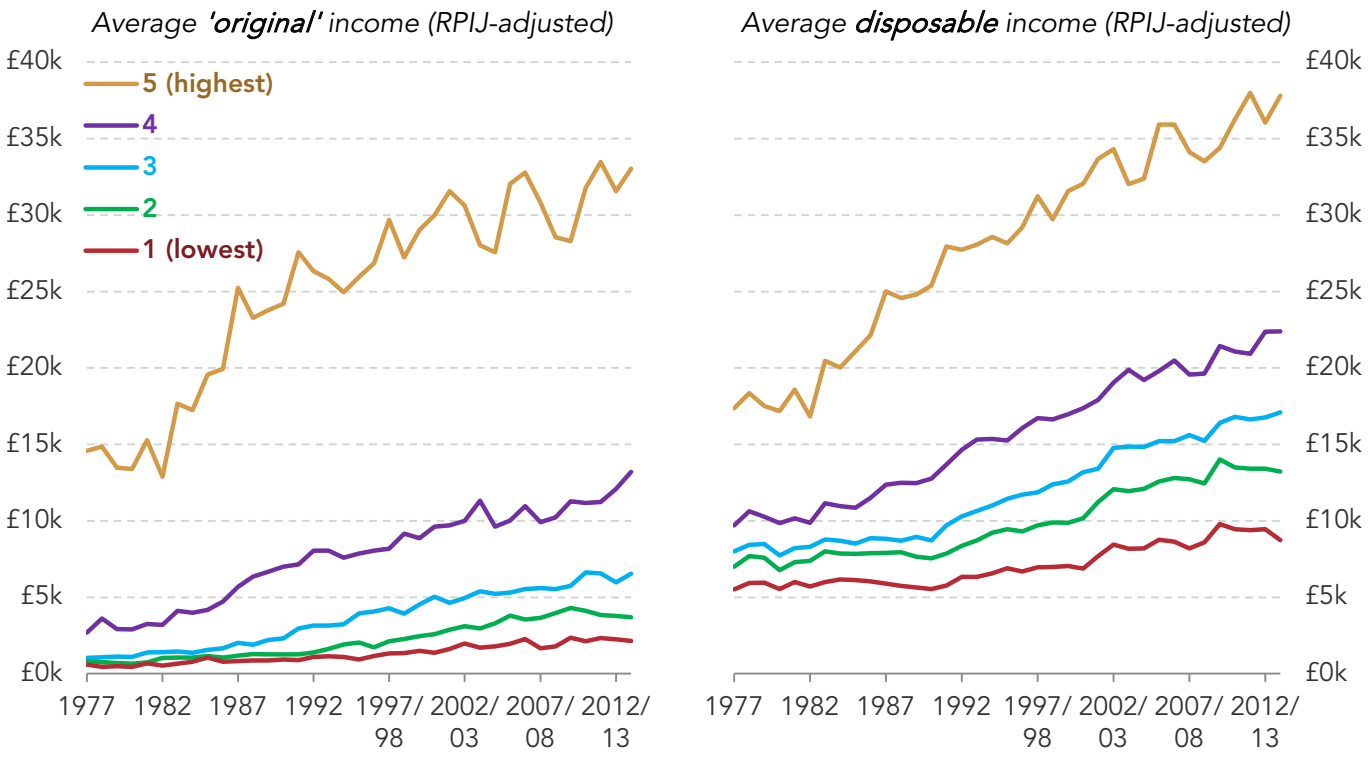
Typical pensioner incomes are lower than typical working-age ones. However the gap has narrowed significantly since the turn of the century, with pensioner incomes being significantly less affected by the stagnation in earnings growth that pre-dated the crisis and the six-year squeeze that followed it. Indeed, since 2002, the income of the typical pensioner household has risen more than ten times faster than that of working-age households.[9]

Encouragingly, such improvements have been recorded across the pensioner population. Real disposable (after taxes and benefits) income is up around 27 per cent since 2000 among the poorest fifth of pensioner households: this compares with an increase of around 18 per cent among the richest fifth.[10] But improvements at the bottom of the distribution have come from a very low base, meaning the ratio of top to bottom income in the pensioner population remains too high. As evident in Figure 1, average incomes among the richest fifth are roughly four times higher than those in the poorest fifth. The ratio tops 15 when measured before accounting for benefits and tax payments.

[9] A Corlett, D Finch & M Whittaker, *Living Standards 2016: The experiences of low to middle income households in downturn and recovery*, Resolution Foundation, 2016

[10] RF analysis of ONS, *The effect of taxes and benefits on household incomes*, various years

Figure 1: Household incomes by equivalised income quintile: pensioner households, UK 1977-2013/14



Notes: 'Original' income covers income from private sources such as occupational pensions, investments and employment. Disposable income includes state pension and other benefits and reductions associated with payment of tax.

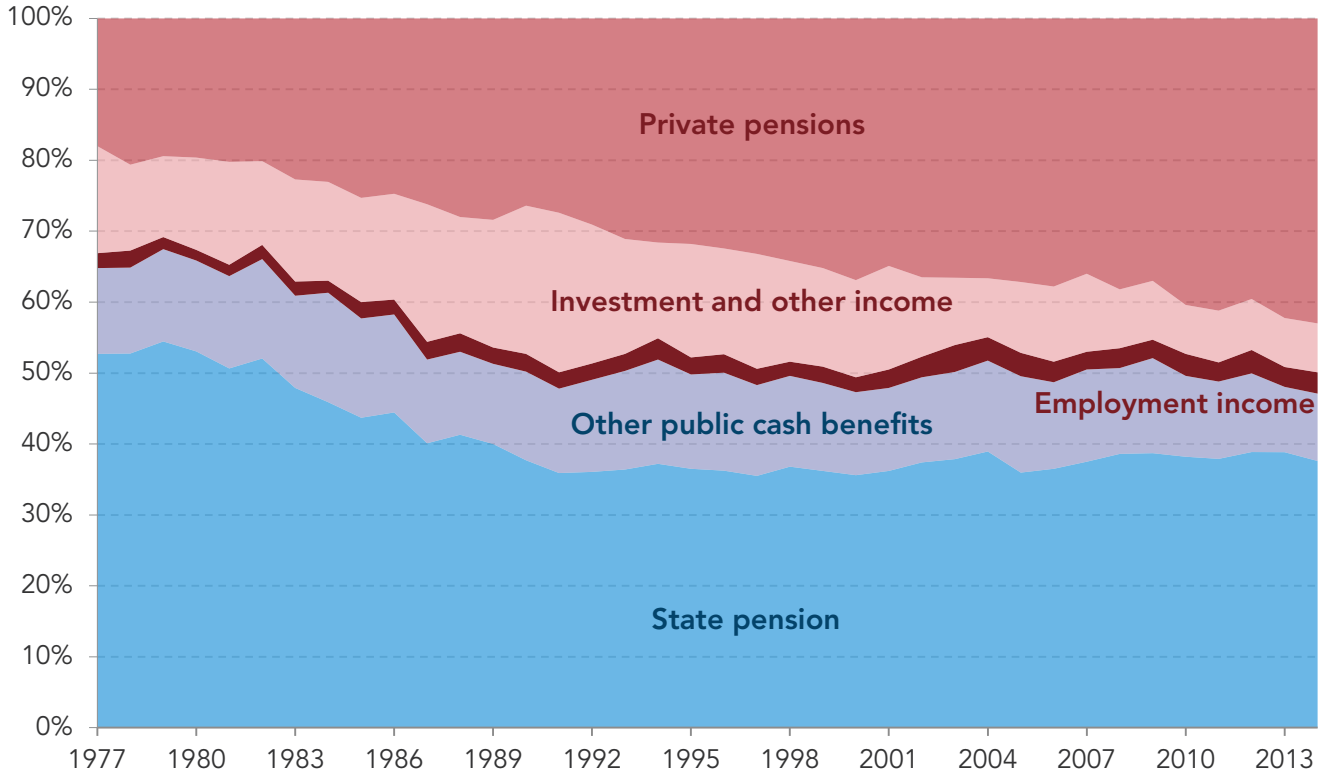
Source: ONS, *Effect of taxes and benefits on household incomes*

The continued divide between pensioners is underpinned by a growing reliance on private pension income, as shown in Figure 2. Private pensions are now on average a greater source of income than the state pension, whereas in the late 1970s the latter was three times as important. In itself, this is not necessarily a bad thing – and we hope that employment income also will form a growing part of pensioner income in future[11] – but it does mean that private pensions must now do more of the work in supporting pensioner living standards.

[11] L Gardiner & P Gregg, *The road to full employment: what the journey looks like and how to make progress*, Resolution Foundation, March 2016

Figure 2: The growing importance of private pensions for pensioner incomes

Make-up of retired households' gross income



Source: ONS, *Effect of taxes and benefits on household incomes*

The growing importance of private pension funds and the continued inadequacy of saving among many low and middle income households makes it ever more important that public resources provide well targeted support for savings, all in a way that remains affordable over the longer-term. Below we consider the current approach to this problem.

Tackling this inadequacy currently focuses on tax relief on contributions

The key element of the current system of tax relief is that both pension *contributions* and the *returns on investment* as they accrue are exempt from tax, but that the *receipt* of pension income in retirement is taxed. This is described as an "EET" (exempt-exempt-tax) system and the mechanics are explained in more detail in Box 1.

i Box 1: How tax relief works

Individuals can get tax relief on private pension contributions up to 100 per cent of the value of their annual earnings (subject to the annual and lifetime allowances discussed below).

All personal and stakeholder pensions apply 'relief at source', whereby the pension provider claims tax relief for the individual at the rate of 20 per cent. Some occupational pensions also apply relief at source. Others take workplace contributions out of an individual's pay before deducting income tax. Individuals with tax rates above 20 per cent must claim additional relief where it is provided at source, but will automatically get it when their employer takes their contribution out of their pay.

Non-taxpayers can still get relief of 20 per cent on the first £2,880 they pay into pension in a given year as long as their provider claims relief at source.

Tax relief applies on all contributions up to an 'annual allowance' which is currently £40,000 a year (having been set at £215,000 when it was introduced in 2006 and having risen to £255,000 by 2010), though unused allowances in the previous three years can be used to 'top up' the current year's allowance. Beyond the allowance, any pension contributions are subject to income tax in the usual way.

A lifetime allowance of £1.25 million (£1.5 million at introduction in 2006, rising to £1.8 million by 2010) applies in a similar way, with tax becoming payable once the sum of an individual's pension pots breaches the limit. This allowance is set to fall to £1 million in April 2016 and will be increased in line with the CPI from April 2018.

Individuals with defined contribution pensions can access the funds from the age of 55 and can usually take up to one-quarter of their pension pot as a tax-free lump sum. The remaining three-quarters of the pot can be withdrawn in a variety of ways, with tax becoming payable at the individual's marginal rate. This differs from the pre-April 2015 regime in which individuals had to use their remaining funds to purchase an annuity (or face a 55 per cent tax rate if withdrawing a larger lump sum).

Individuals with defined benefit pensions are also able to access up to one-quarter of their pot as a tax-free lump sum. However, the drawdown options on the remaining three-quarters are more restricted. Unless they choose to transfer the funds into a defined contribution pension, they receive a specified income each year on which tax is payable at their marginal rate.

The system is complicated by the treatment of National Insurance contributions (NICs). Employee contributions are effectively subject to NICs (both employee NICs and employer NICs), but employer contributions are exempt. NICs are also payable on the pension contributions of the self-employed (though income tax relief is available in the same way). Because those over the state pension age don't pay NICs, employer contributions to a pension are 'EEE' in this respect. That is, no NICs are payable at the contribution, investment or receipt stages. In contrast, employee contributions are 'TEE': taxed up front but not thereafter.

The different treatment of income tax and NICs is particularly pertinent at present given the ongoing Office for Tax Simplification review into alignment of the two systems. While not focusing on pensions, the review does aim to "achieve closer alignment of income tax and National Insurance contributions".[12]

Tax relief is designed to incentivise savings and facilitate income smoothing

The favourable tax treatment of pensions is in recognition of the fact that – short of some form of compulsion – people need to be incentivised to enter into such an inflexible form of long-term saving. The new pension 'freedoms' introduced from April 2015 have of course reduced some of this inflexibility, but pension products continue to lock money away until retirement (or age 55 at least). To make pensions attractive relative to other forms of saving – and therefore support the provision of incomes for later life (at least for those groups we fear won't save enough) – financial

[12] Office of Tax Simplification, *OTS review of tax-NIC alignment – TOR*, July 2015

incentives must be used. In addition to the offer to individuals, incentives for employers are provided in order to take advantage of the efficiencies that can be gained by delivering pensions on a collective basis.

From a fiscal perspective, the 'EET' treatment has the advantage of ensuring that the returns on investment – for the majority of non-housing savings in this case – are taxed simply and effectively.

The tax relief approach is also argued to allow for 'income smoothing' over the lifetime, by avoiding any double-taxation that might otherwise be associated with delaying consumption. Thus the approach is claimed to be (at least) 'tax neutral', simply deferring tax into retirement in a way that avoids penalising individuals for choosing to save for tomorrow rather than spend today.

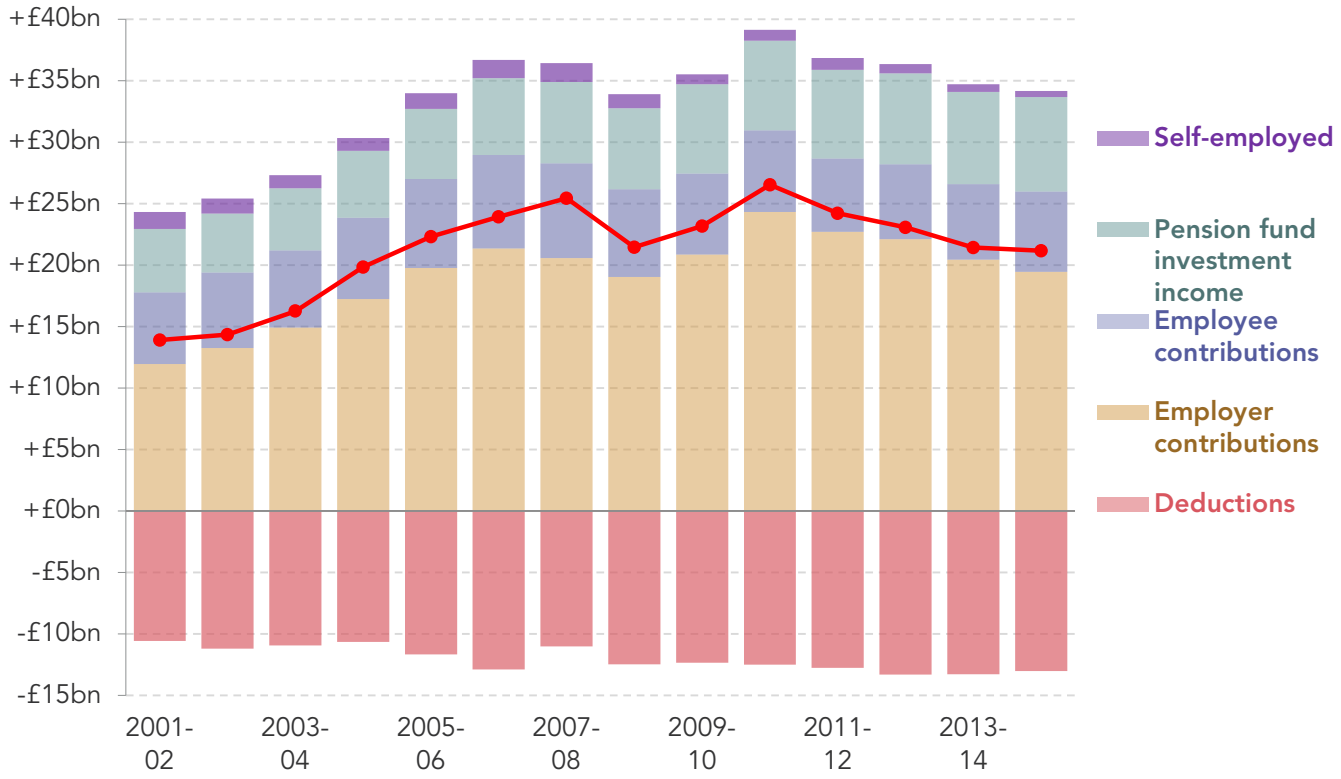
From a practical perspective, the current 'EET' approach has the further advantage of meaning that contributions to defined benefit schemes do not need to be valued on an individual basis (because tax only applies at the receipt stage). With the decline of such defined benefit schemes however, this is of gradually diminishing importance.

But the system is very expensive

In gross terms, income tax relief on pension contributions and returns amounted to just over £34 billion in 2014-15. As detailed in Figure 3, around £19.5 billion of this comprised employer contributions (to occupational and personal pensions). Employee contributions accounted for £6.5 billion, with the remainder coming from investment income on pension funds (£7.7 billion) and self-employed contributions to personal pensions and retirement annuity contracts (£0.5 billion).

Figure 3: Cost of registered pension scheme income tax relief: UK

Pensions income tax relief (+) and pension income tax received (-) (RPIJ-adjusted, 2014-15 prices)



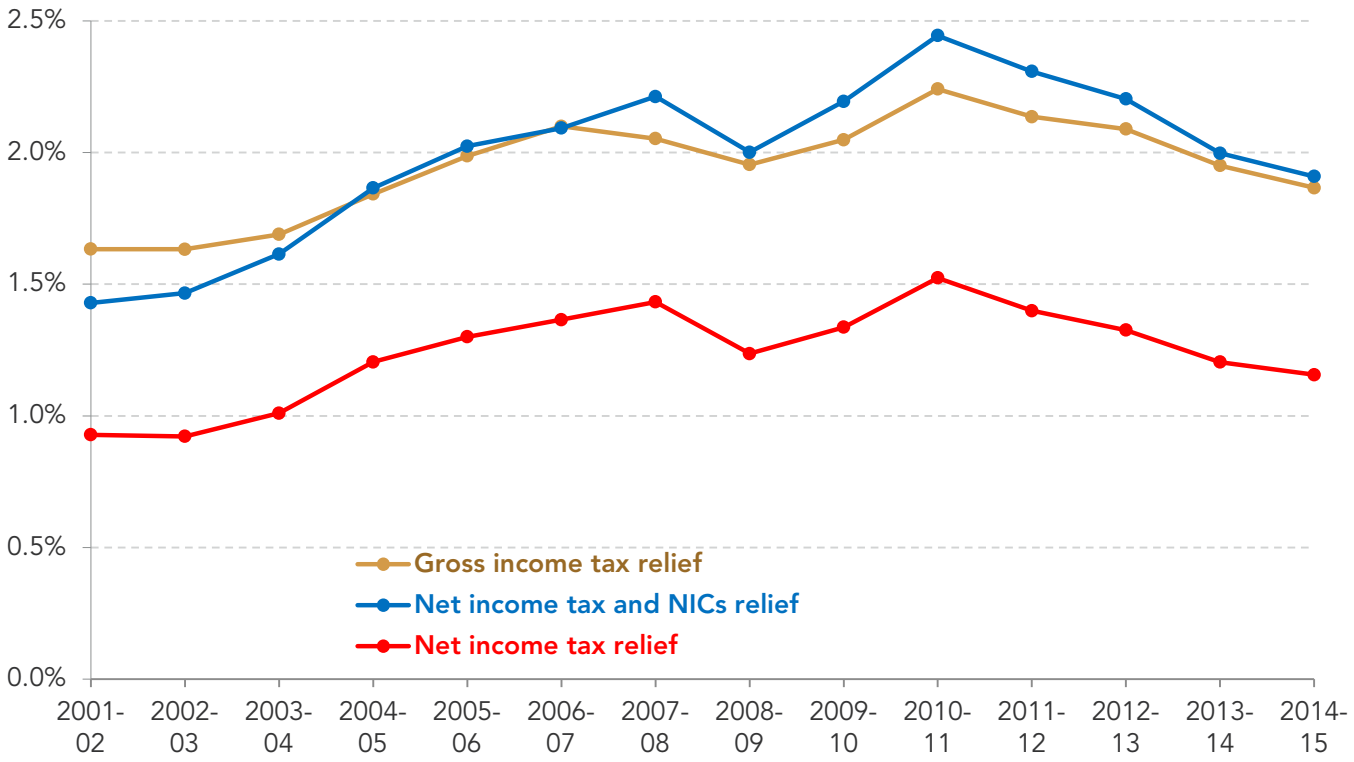
Source: RF analysis of HMRC, *Personal Pension Statistics*, February 2016, PEN6

However, it's important to recall that the principle here is to *defer* taxation. In the same year, £13 billion was received through taxing the receipt of pensions. And the two groups here – those contributing to pensions and those receiving them – are not the same. If we could look at the eventual tax receipts that will come from today's savers, the sum may be much larger. Nevertheless, the in-year net cost of relief amounted to just over £21 billion. Adding in £13.8 billion of NICs relief on employer contributions brings the overall total to just under £35 billion.

Figure 4 compares the in-year costs of tax relief – on a gross and net basis and with and without accounting for NICs relief – with GDP. It shows that costs tended to rise during the first half of the 2000s, particularly when using the measure that includes NICs relief (driven in part – but not entirely – by an increase in NICs rates from April 2003). All three measures started to fall from around 2006, following the introduction of the annual and lifetime limits on relief. The brief spike in the immediate post-crisis period reflects the sharp reduction in GDP occurring at that time. But downward trends have been re-established on all three measures since roughly 2010, driven by further restrictions on access to relief for higher earners.

Figure 4: Cost of registered pension scheme tax relief as a share of GDP: UK

In-year pension income tax and NICs relief as a share of GDP



Source: RF analysis of HMRC, *Personal Pension Statistics*, February 2016, PEN6

Nevertheless, despite these recent reductions in the gross cost, the overall in-year net cost of income tax and NICs relief together amounts to around 1.9 per cent of GDP – up from 1.4 per cent in 2001-02. In real-terms, the net cost has increased by around 63 per cent over the period.

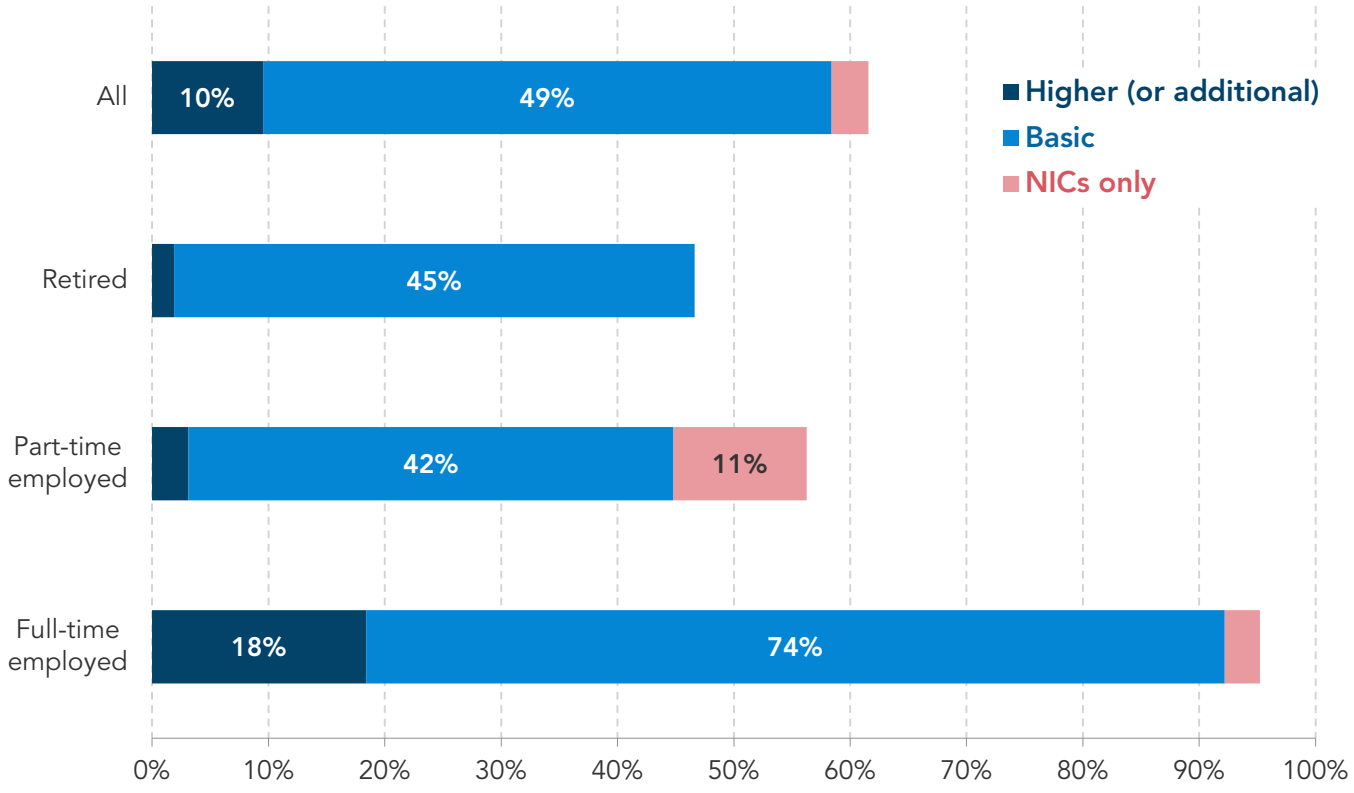
And it is highly regressive

Given that income tax is progressive, it is inevitable that a straight form of tax relief will prove to be regressive. Of course, to some extent this is simply *deferment*: tax will become payable on the pension income in retirement. As discussed above, this principle avoids double-taxation and the discouragement of saving.

But, in practice, large numbers of savers find that their marginal tax rate is lower in retirement than during their working lives. As Figure 5 shows, less than half of the retiree population (47 per cent) currently pays any income tax, compared with almost all (92 per cent) of full-time employees. By deferring their tax, many savers therefore receive an 'invisible' tax break.

Figure 5: Tax band of adults by economic status: UK 2015-16

Proportion paying income taxes, by economic activity status



Source: RF analysis of DWP, *Family Resources Survey* using IPPR tax-ben model and RF 'nowcasting'

Of course, comparing today's employees and today's pensioners can't tell us exactly what tax rates today's employees will pay when they become pensioners. And while some people may pay a particular tax rate in one year, across their lifetimes they may pay several different rates.[13] But simulations done by the Institute for Fiscal Studies suggest that only a small minority of higher or additional rate taxpayers remain so retirement and that basic rate taxpayers in a given year have about a 50:50 chance of becoming non-taxpayers in a given year of retirement.[14] What's more, while

[13] Note that the EET pension tax system itself reduces the number of basic/higher rate taxpayers at the contribution stage (by exempting pension contributions from tax) and increases their number in retirement (because pension incomes are taxable). Note also many of today's pensioners were subject to higher levels of basic and higher rates of tax during their working lives.

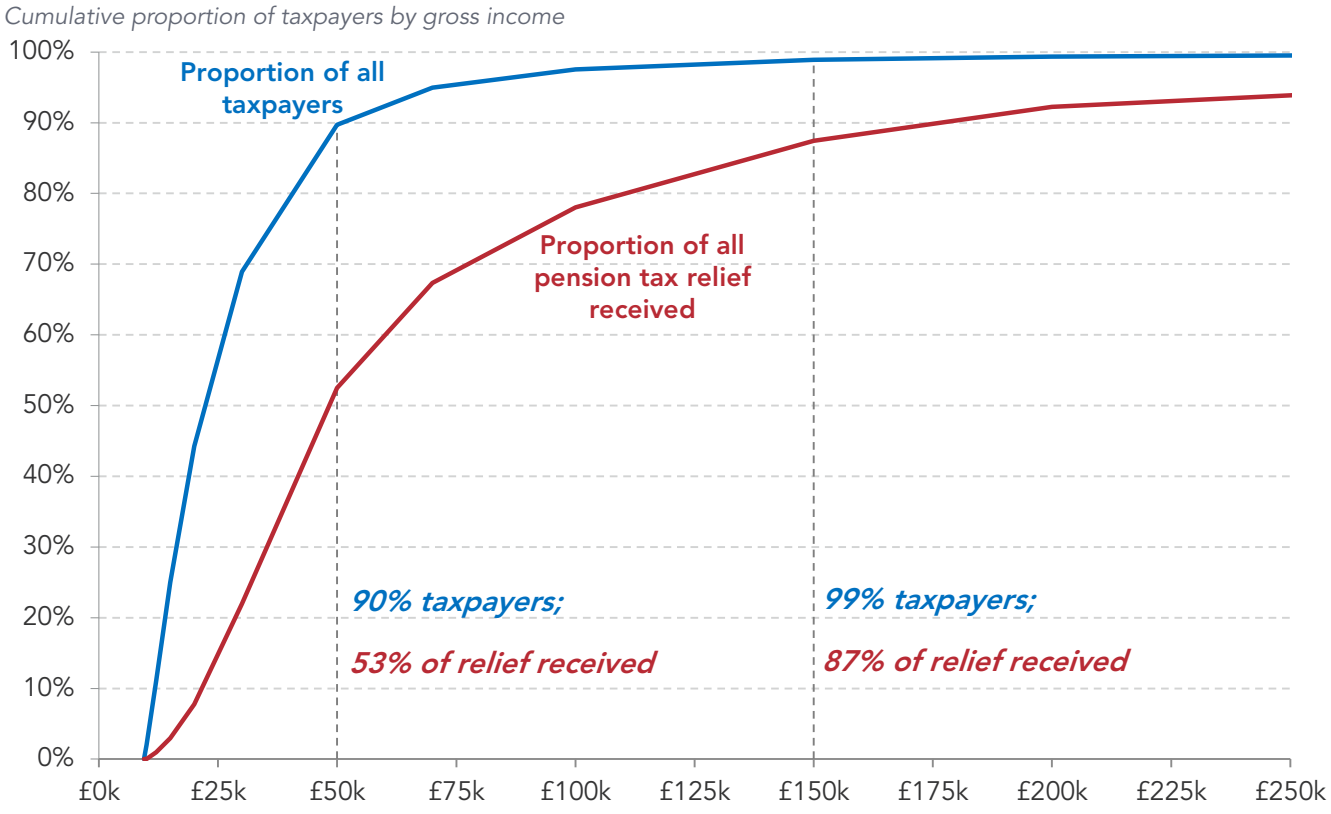
[14] S Adam & J Shaw, *The Effects of Taxes and Charges on Saving Incentives in the UK*, IFS, February 2016. See Tables 4.8 and 4.9 in particular.

these figures are for *marginal* tax rates, the fall in *average* tax rates between contributions (which generally will be taxed at a person's marginal rate) and receipt will be even greater: with much or even most of the private pension income of higher rate paying retirees nonetheless falling within the personal allowance and basic rate band. There therefore appears to be a strong likelihood that higher and additional rate taxpayers will benefit from deferring their taxation into retirement.

Perhaps more simply, higher earners also stand to gain more from the current system because they are better placed to save substantial sums in pensions. Thus they receive higher marginal tax relief on larger sums of money – a double advantage.

Figure 6 illustrates this process in action. It compares the cumulative distribution of all taxpayers by gross income with the cumulative distribution of pension tax relief gains. It shows, for instance, that roughly 90 per cent of those who pay income tax have incomes below £50,000; yet this population accounts for just over half (53 per cent) of all pension tax relief. At the opposite end of the income distribution, the top 1 per cent of taxpayers (with incomes above £150,000), account for 13 per cent of all the relief paid out. That's roughly equivalent to the relief recorded by the entire bottom 50 per cent.

Figure 6: Distribution of taxpayers and pension tax relief by gross individual income: UK 2013-14



Notes: This analysis covers taxpayers only and so excludes the relief received by non-taxpayers who are paying into a pension and receiving relief at source at 20 per cent.

Source: RF analysis of HMRC, *Personal Income Statistics 2013-14*, March 2016

Focusing just on personal pensions (i.e. not occupational), the average relief received by those with incomes in excess of £1 million in 2013-14 was £41,100, compared with averages of £2,560 for those with incomes between £50,000 and £70,000 and £180 for those with incomes between £10,000 and £12,000.

It is also worth noting that exemption of NICs on employer but not employee pension contributions represents another form of non-neutrality. It favours employer payments and so incentivises salary sacrifice as a means of reducing the tax bills of firms and individuals alike.

The final element of the current system that adds to its regressivity is the provision of the option of accessing a tax-free lump sum during drawdown. This reportedly costs around £4 billion a year[15] and is most advantageous to those with the largest pension pots and those facing the highest marginal tax rates in retirement.

With recent pension reforms both altering the importance of incentives and undermining the justification for preferential tax treatment

In addition to the cost and regressive nature of tax relief, the efficacy of the current approach is worth reviewing in the light of a number of recent changes in the pension landscape. Most obviously, auto-enrolment (see Box 2) has played a very positive role in boosting the number of people saving into a pension, and in future it will also increase their rate of saving. It thereby calls into question the need to continue spending as much money on financial incentives to save.

[15] The government no longer publishes figures. See Steve Webb, "Obsborne's legacy: a £4bn annual pensions grab", *The Sunday Times*, 21 February 2016.

i Box 2: Auto-enrolment

Auto-enrolment – the process by which employees are automatically enrolled into a pension scheme by their employers and must actively opt-out if they don't want to join – began its roll out in October 2012. Having initially been applied to the largest businesses in the country, it is currently and throughout 2016-17 being rolled out to those with fewer than 30 employees. The newest employers and those without PAYE will follow. At present, employees earning above a threshold of £10,000 per year are auto-enrolled.

Once the roll-out is complete, the minimum contribution requirements will also increase. From 2 per cent of eligible pay (with the first £6,000 or thereabouts excluded), the minimum contribution will ultimately rise to 8 per cent – split between employer and employee as set out in Table 1.

Table 1: Increasing minimum contributions under auto-enrolment

	Minimum contribution (% of gross eligible pay)		
	Employer	Employee (inc. tax relief)	Total
Before 2018-19	1%	1%	2%
2018-19	2%	3%	5%
2019-20 onwards	3%	5%	8%

There have been many suggestions for increasing the ambition of auto-enrolment further in future, such as by ending the possibility of opt-out (unless people have sufficient funds) and increasing the minimum rate (either outright or through an 'auto-escalation' of rates whenever people receive pay rises).[i] There have also been proposals to introduce something parallel to auto-enrolment for the self-employed, for whom default auto-enrolment is not an option but who now make up one-in-seven of the workforce.[ii]

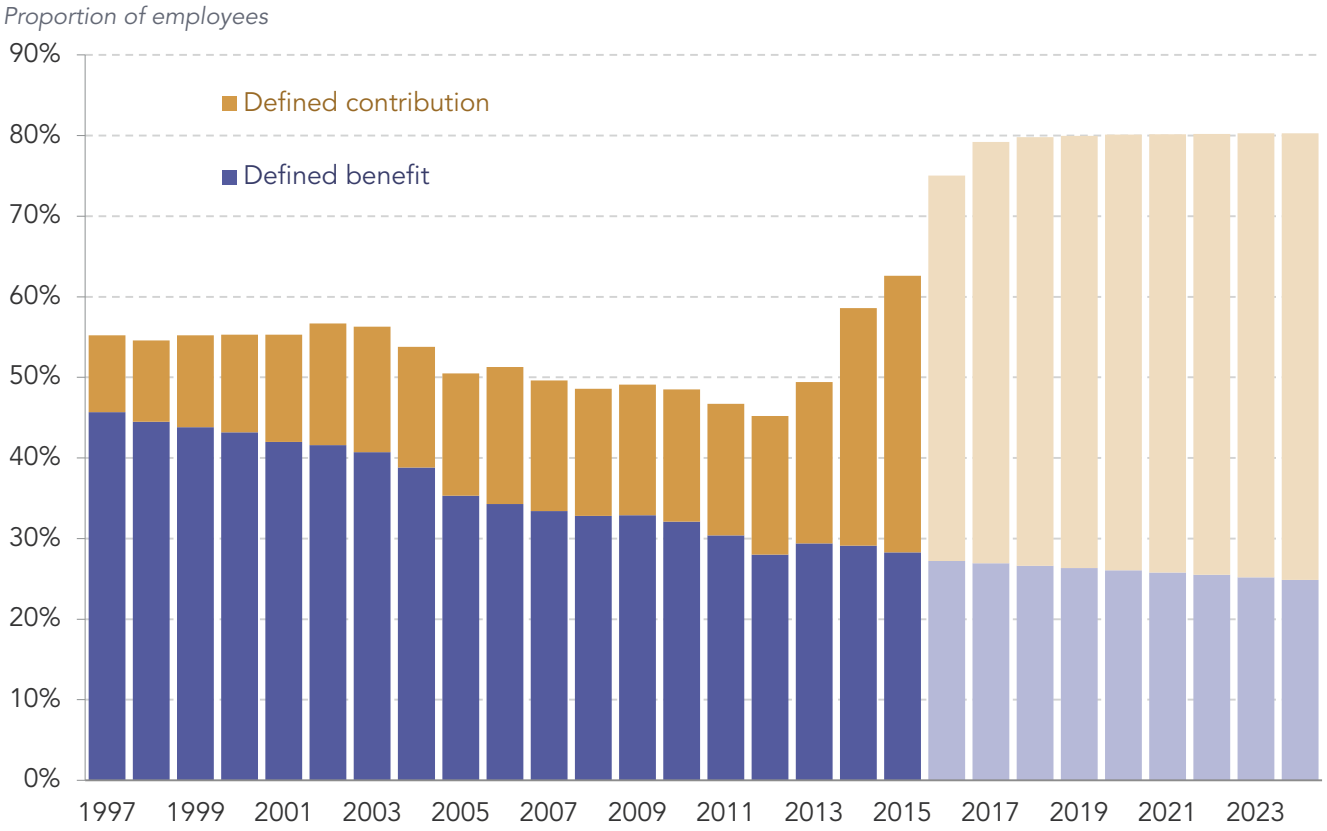
[i] See for example, Policy Exchange, *Brits must save over six times more for retirement*, 22 January 2014. The Independent Review of Retirement Income (IRRI) suggests the target for savings should be 15% of salary (see B Milligan, "Workers should double their pension savings, says Labour's review", *BBC Website*, 2 March 2016).

[ii] Citizens Advice press notice, "Half of self employed people do not trust pensions", 28 January 2016

Even before roll-out is complete, Figure 7 shows how auto-enrolment has already more than reversed the post-millennium decline in the proportion of employees saving into pensions. Over 5 million employees have been automatically enrolled to date. Only around 10 per cent of those eligible have opted out, with the DWP forecasting that this figure will rise to an equilibrium rate of 15 per cent over the lifetime of the programme.[16] With further roll out to come, PPI projections suggest that roughly four-fifths of employees will be saving into a pension from 2017, despite the continued gradual decline of defined benefit schemes.

[16] The Pensions Regulator, *Automatic enrolment: Commentary and analysis: April 2014-March 2015*, July 2015

Figure 7: Trends and projections for pension ownership among employees: UK 1997-2024



Source: Outturn: ONS, *Annual Survey of Hours and Earnings 2015*; Projection: PPI modelling

The other major reform of recent years has been the introduction of new pension 'freedoms' from April 2015. The increased flexibility, which was announced at Budget 2014, removes the obligation on holders of defined contribution pensions to use their funds to take out an annuity in retirement. As before, savers can take up to one-quarter of their pension pot as a tax-free lump sum. But, whereas previously any amount above this was taxed at 55 per cent, the reforms mean that the remaining 75 per cent can be accessed at the individual's standard marginal tax rate. Alternatively, it can be used to buy a flexible income drawdown product (or an annuity).

This reform matters because it introduces significant flexibility to the pension system and therefore potentially undermines one of the key arguments for providing preferential tax treatment for pension saving – namely that it is needed in order to compensate people for the inconvenience of locking themselves into a long-term savings vehicle. While it is true that pension savings remain locked away until someone turns 55, the landscape looks very different from the one that prevailed when the current 'EET' system was first formulated.

The case for change

The combination of expense, regressivity and changed backdrop mean that it is right to look at options for pension reform – particularly when significant numbers of individuals remain on course to achieve inadequate income in retirement. The government's consultation document highlighted similar themes, but acknowledged that its process could conclude that no change was merited. It did however, set out a range of options for discussion:

> *1.5 The government is clear that the conclusion of this consultation may be that maintaining the current system is the most effective method of achieving the aims described above. The current system is based on a simple principle – that taxation of pensions should be deferred until retirement. Sustainability of the system has been improved, with restrictions made since 2010 contributing over £6 billion a year to repairing the public finances.*
>
> *1.6 However, the government is interested in views on the various options that have been suggested for how the system could be reformed. These range from a fundamental reform of the system (for example moving to a system which is "Taxed-Exempt-Exempt" and providing a government top-up on contributions) to less radical changes (such as retaining the current system and altering the lifetime and annual allowances), as well as options in between.*[17]

In the following two sections we consider in turn the two alternatives that have been most discussed in the run-up to Budget: a shift to a single rate of relief within the 'EET' system; and the more radical move to 'TEE'. We present indicative packages by way of providing an illustration of their possible features, advantages and disadvantages.

We don't attempt a full evaluation and we make no conclusions as to preferred ways forward. But, in setting out our general assessments of the approaches, we are primarily interested in their distributional impact – both across the income distribution and across different cohorts. Alongside the potential fiscal impacts, we also offer some thoughts on practical considerations – including the potential disruption to the savings industry and the economy as a whole associated with any radical reform.

[17] HM Treasury, *Strengthening the incentive to save: a consultation on pensions tax relief*, July 2015

Section 3

Flat rate schemes

By removing the difference in the level of tax relief provided to basic, higher and additional rate taxpayers, introducing a single flat rate of tax relief would inevitably prove more progressive than the current approach. The extent of the distributional shift and the impact on the public finances would of course depend on the specific rate selected. And there would be significant practical consideration, particularly in relation to defined benefit schemes.

In this section, we consider what a flat rate or alternatives might look like and estimate how the 'break even' level of relief (i.e. the point at which the cost of gross tax relief would broadly match the cost in the status quo) will evolve over the coming years against the backdrop of auto-enrolment. We set out illustrative distributional consequences and explore a number of complications and objections.

The public finance cost of a single rate of relief would depend on the level selected

As set out in Section 2, individuals currently obtain tax relief on pension contributions at their prevailing marginal tax rate. The introduction of a single rate of relief would mark a significant change, with all individuals eligible for relief at the same rate.

There has been some suggestion that a single rate might also lend itself to rebranding as a 'matched government contribution'. That is, instead of describing the process in terms of exemption from tax, it might instead be explained as a top-up provided by the government on any contributions made by the individual (or by the employer on their behalf). For example, the current 20 per cent rate of relief for basic rate taxpayers would translate into a 25 per cent matching scheme based on net contributions. By way of illustration, note that a £5 gross contribution is currently subject to £1 relief (20 per cent) meaning the individual makes a net contribution of £4. When described as a matching scheme, a £4 net contribution would be 'topped-up' by £1 (25 per cent) to create the same £5 gross contribution total.[18] The argument is that the latter approach would be more understandable and so would encourage higher levels of saving (see Box 3 for a discussion of the merits of the matched offer provided under the Saving Gateway pilots).

[18] Similarly, a 25 per cent rate of tax relief would translate into 33.3 per cent matching (£1 per £3) and a 33 per cent rate would translate into 50 per cent matching (£1 per £2).

i Box 3: The Saving Gateway

The Saving Gateway was a government programme – that never left the pilot stage – aimed at increasing rates of saving among low income households. They would be incentivised to increase their saving through a matching scheme with the government matching contributions at a rate of 50p for each £1 saved up to £25 a month over a two year period.

In the 2000s the government carried out two pilots of the scheme and prepared a final version of the scheme – open to individuals in receipt of particular benefits or in work with household income of less than £16,040 – to be launched in July 2010.[i] However, in June 2010 the Chancellor announced that the policy was "not affordable" and would be abolished.

In the first pilot, in operation from August 2002, the match rate was pound-for-pound and in the later pilot between February 2005 and March 2007 the match rate varied from 20p to £1 for each £1 saved. The second pilot was much wider in size and scope with over 22,000 accounts (compared to 1,500 in the first pilot), an individual income threshold of £25,000 and a household income threshold over £50,000 (compared to £15,000 in the first pilot). The monthly contribution limit varied from £25 a month to £125 a month and individuals could save up to this maximum for 16 of the 18 months for which the pilot was in operation.

The evaluation of the second pilot found that 71 per cent of account holders made a net contribution in at least 16 of the 18 months and that 61 per cent of account holders achieved the maximum government match.[ii] It reports that "a positive…effect on savings account balances is evident for both lower and higher income groups" with those offered accounts 5.3 percentage points more likely to have increased their savings balances by more than two months of maximum contributions than those in an otherwise identical control group.

The evaluation also found that 42 per cent of participants planned to continue to save the funds after the end of the scheme and that many new savers had said they were likely to continue saving even without a government match. The matching system was found to be a 'simple and useful mechanism for determining returns', easier to understand than interest payments and a useful tool to encourage participants to take up the habit of saving.

[i] Directgov (via National Archives), Saving Gateway – what it is and who qualifies

[ii] P Harvey, C Emmerson, G Tetlow & M Wakefield, *Final Evaluation of the Saving Gateway 2 Pilot: Main Report. Research study conducted for HM Treasury/Department for Education and Skills*, May 2007

Whatever the approach, the key decision centres on the choice of rate at which relief is offered (or the equivalent level of 'matching'). To help inform this decision, it is useful to identify the rate that would generate the same gross cost to the Exchequer as the current system. If we assume no behavioural change among savers[19] this is relatively straightforward, being equivalent to the average level of tax relief currently provided.

However this revenue-neutral, or 'break-even', level is falling as a result of the roll-out of auto enrolment. With more low to middle earners being brought into private pension saving, and their default savings rates being increased, basic rate taxpayers are starting to comprise a larger share of the overall volume of pension saving. Our approach accounts for this by adjusting estimates of saving over time in accordance with projections associated with auto-enrolment.[20] We set out our findings in Table 2. Using outturn data for 2011, we find that a single rate of relief would have broken even at roughly 30 per cent.[21] The revenue-neutral rate has since fallen and is estimated to be just 29 per cent in 2018 and 28 per cent by 2025. Beyond this point, with auto-enrolment

[19] We estimate these costs on the basis of current savings behaviour because the effects of any reform on this behaviour is much too uncertain to attempt to model.

[20] The scenarios and estimates set out in the section and the next are primarily based on modelling undertaken on our behalf by the Pensions Policy Institute (PPI). Full details of the PPI model are provided in Annexes 1 and 2.

[21] Leading the then Pensions Minister Steve Webb to advocate such an approach. See for example, "Pensions minister floats standard rate of tax relief", *Financial Times*, 17 April 2014

fully rolled-out, it is expected to remain broadly stable at 28 per cent (assuming that there are no more increases in minimum contribution levels).

Table 2: Impact of auto-enrolment on the revenue-neutral flat rate

	2011	2018	2025	2030
Average rate of tax relief under current system	30%	29%	28%	28%
Projected gross cost of pension tax relief (2015-16 earnings terms)	£28bn	£30bn	£25bn	£22bn

Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

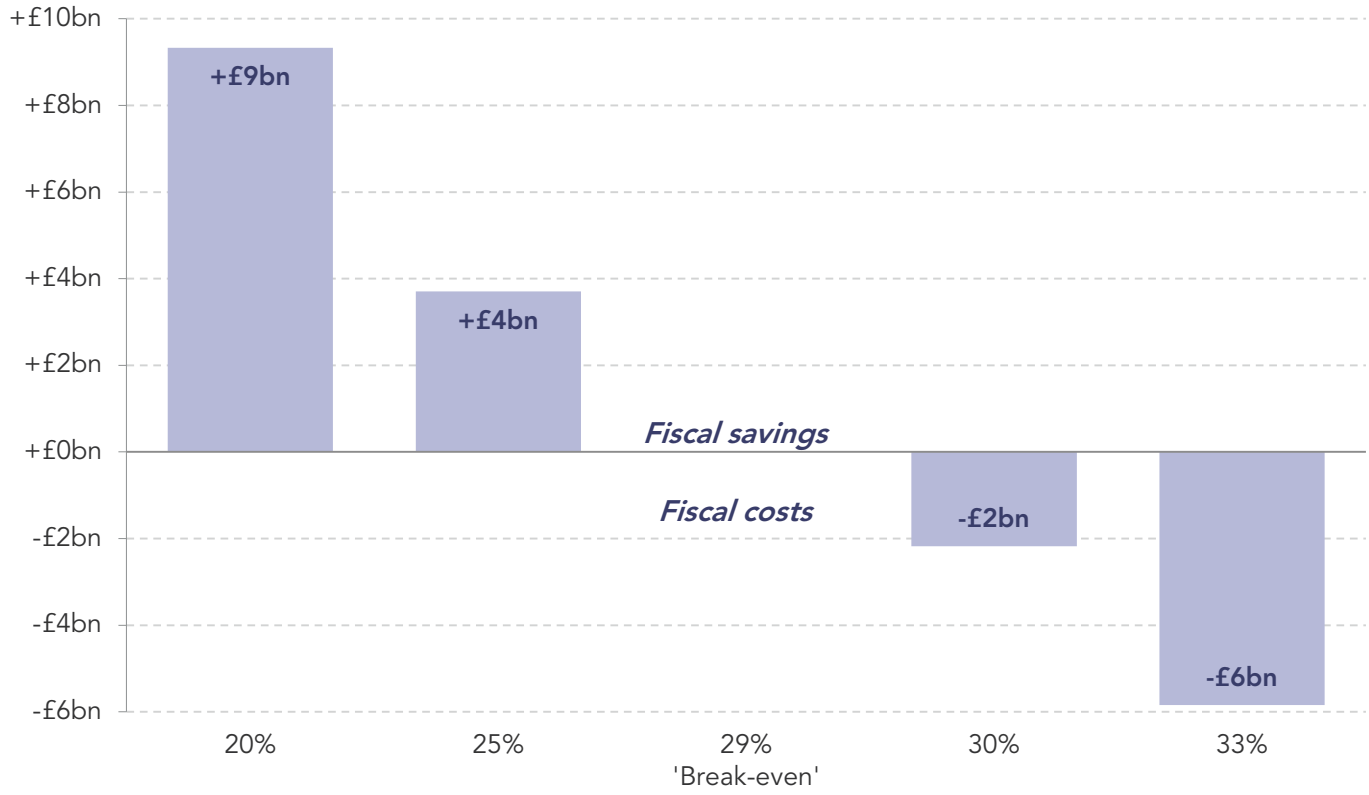
Having identified the revenue-neutral rates at different points in time, Figure 8 sets out estimated fiscal implications of variations around the 2018 rate of 29 per cent. By then, auto-enrolment should have been rolled out to all employers and the gross cost of income tax relief under the status quo is projected to amount to just over £30 billion.[22] We consider how much more or less the Exchequer would be paying out at different single rates. Bringing everyone in line with the basic rate relief by introducing a flat rate of 20 per cent would be much less generous to higher and additional rate taxpayers and so would reduce gross pension tax relief by around £9 billion a year.[23] Choosing to instead be much more generous to basic rate taxpayers by introducing a 33 per cent flat rate would *raise* the aggregate relief cost by around £6 billion.

[22] This figure is derived from the PPI Aggregate Model and is an estimate based on the Lifetime Market Labour Database. It – and the other figures set out in this analysis – differs from the totals presented in Figure **3**. See Annexes 1 and 2 for more details.

[23] Planned but not yet implemented cuts to the lifetime allowance and annual allowance have not been included in this modelling, meaning that the fiscal savings shown here would be somewhat reduced (and the losses increased). Any future increases in the higher rate income tax threshold will also reduce the volume of higher rate pension contributions and therefore also reduce the potential gains from reform.

Figure 8: Estimated fiscal savings associated with selected flat rate relief schemes in 2018

Change in gross tax relief cost in 2018 relative to unchanged policy (2016 earnings terms)



Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

A single rate would inevitably be less regressive than the current system

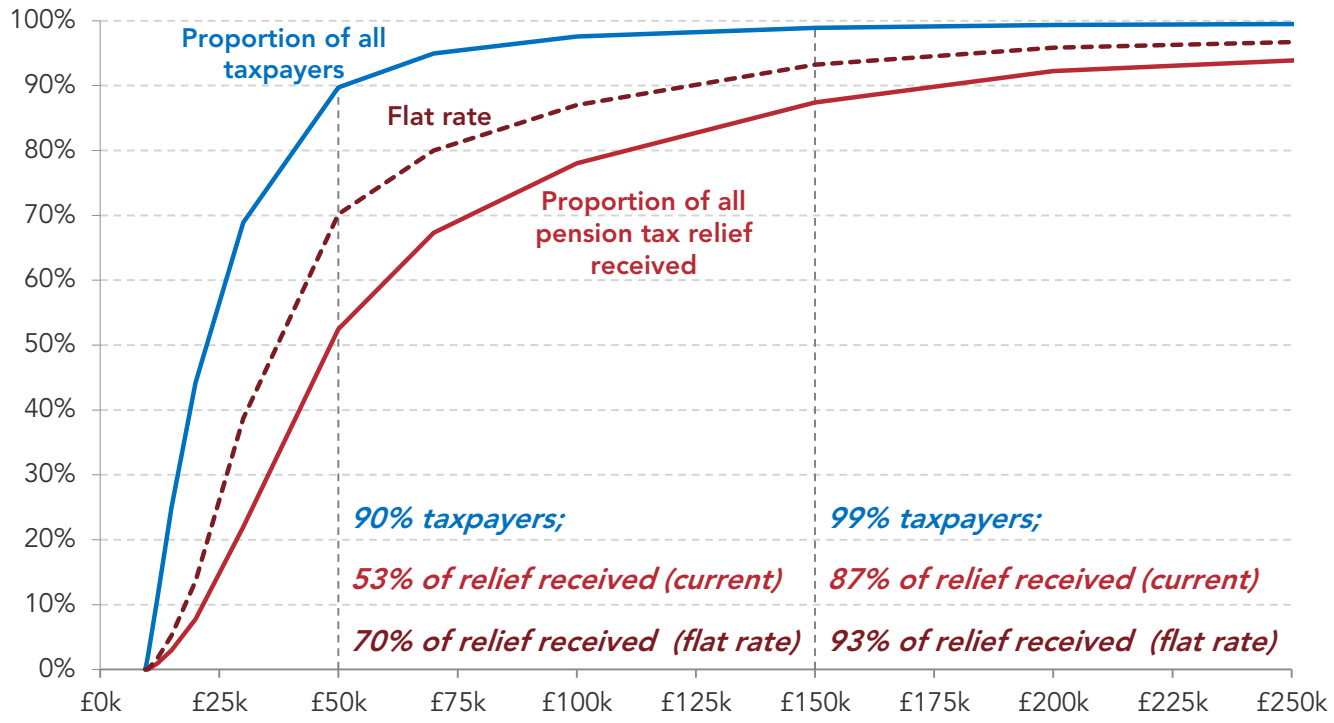
Whatever the rate chosen, a single rate would be less regressive than the current system of tax relief. Basic rate taxpayers would benefit from any rate above 20 per cent, while higher and additional rate taxpayers would face losses at any level below their respective current marginal tax rates.

By way of illustrating the potential scale of this distributional effect, Figure 9 compares the existing cumulative distribution of pension tax relief across the income distribution (as previously presented in Figure 6) with the distribution that would prevail under a flat rate of relief.[24] It shows that the proportion of relief accounted for by the 90 per cent of taxpayers with incomes below £50,000 would rise from roughly half (53 per cent) to more than two-thirds (70 per cent). Similarly, the proportion of relief accounted for by the top 1 per cent of taxpayers (above £150,000) would drop from 13 per cent to 7 per cent.

[24] The specific rate of relief does not matter for the purposes of this distribution.

Figure 9: Illustrative comparison of the distribution of taxpayers and pension tax relief by gross individual income under existing and flat rate schemes: UK 2013-14

Cumulative proportion of taxpayers by gross income



Notes: This analysis covers taxpayers only and so excludes the relief received by non-taxpayers who are paying into a pension and receiving relief at source at 20 per cent. The flat rate estimate is calculated by holding the estimated net employer/employee contribution constant but applying the new flat rate of relief to determine how much relief is accounted for by each income band. A lack of granularity in the income band data (for example, there is no split within the £30k-£50k band) means that this illustration should be treated with some caution.

Source: RF analysis of HMRC, *Personal Income Statistics 2013-14*, March 2016

Looking instead at the split between tax bands, the curves in Figure 9 imply that – despite representing just 8 per cent of the adult population and 15 per cent of all taxpayers – higher and additional rate taxpayers account for roughly 30 per cent of pension contributors and 63 per cent of all tax relief. Under a flat rate approach, this final figure is estimated to drop to 45 per cent.

We consider three example savers in Table 3. In all cases we assume they begin contributing to their pension at age 30, that their pay grows in line with average earnings, that they take a tax-free lump sum of 25 per cent of their pot value upon retirement and that the remainder is used to secure a flat rate annuity at 5.5 per cent.

Net value of pension pot at retirement for current 30 year old employees under current and flat rate schemes (2016 earnings terms)

	Total net value of pension saving available after retirement				
	Current system	Flat 20% rate	Flat 25% rate	Flat 30% rate	Flat 33% rate
Full-time **NLW** earner					
Auto-enrolled; **minimum** employer and employee contributions	£22,100	+£0	+£1,500	+£3,200	+£4,300
Basic rate taxpayer before retirement		+0%	+7%	+14%	+19%
Not liable for tax after retirement					
Full-time **median** earner					
Auto-enrolled; **average** employer and employee contributions (9% combined)	£83,100	+£0	+£5,200	+£11,200	+£15,200
Basic rate taxpayer before retirement		+0%	+6%	+13%	+18%
Basic rate taxpayer after retirement					
Full-time **higher** earner (£60k)					
Auto-enrolled; **average** employer and employee contributions (9% combined)	£159,000	-£38,500	-£30,800	-£22,000	-£16,100
Higher rate taxpayer before retirement		-24%	-19%	-14%	-10%
Basic rate taxpayer after retirement					

Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

While these examples are clearly no more than illustrative (as discussed in Section 2 for example, individuals frequently move between tax bands over the course of their working lives), they highlight the gains accruing to the low and middle earners in most instances and the sizeable losses faced by the higher earner. For example, a 33 per cent flat rate would boost the NLW earner's pension pot by £4,300 (or 19 per cent) and the median earner's pot by £15,200 (or 18 per cent). In contrast, the higher earner would *lose* £16,100 (or 10 per cent). Taking the more extreme example of a flat rate of 20 per cent, the higher earner's pot would be reduced by £38,500 (or 24 per cent), while the NLW and median earners would be unaffected.

These patterns of gains and losses reflect not just the changes in the rates of relief applied to each individual's pension savings, but also to the *size* of the underlying pots. Thus the higher earner loses very significant cash sums both because of the fall in the rate of the tax relief available to them and because they have much higher levels of overall savings than the other two individuals.

But opposition centres around major practical difficulties

So a flat rate of relief could raise money by reducing the gains from moving from the higher rates of tax when of working age to the basic rate in retirement. Additionally, or alternatively, it would redistribute from higher earners to other in-work savers. The particular version we have assessed here would not remove the regressivity associated with the provision of a 25 per cent tax-free lump sum in the drawdown phase, though this need not be outside of scope.

It's important to note that a reduction in relief for higher rate taxpayers needn't be tied to an increase in relief for basic rate taxpayers. In the example of a 25 per cent flat rate, the £4 billion gain for basic rate and non-taxpayers might be scrutinised for cost-effectiveness – like any tax expenditure should – quite separately from an £8 billion tax increase for higher and additional rate taxpayers. However, for reasons of political economy a single flat rate has been the focus of discussion. Significant resistance to such reform has primarily focused on two issues: unfairness and complexity.

In relation to the former, a flat rate below 40 per cent would reintroduce double-taxation for some savers. Specifically, higher rate taxpayers who remain in this position in retirement would find themselves penalised under a flat rate approach. With a single rate of 25 per cent for example, they would pay 20 per cent income tax at the contribution stage,[25] and then pay a marginal rate of 40 per cent upon receipt – effectively moving from 'EET' to 'TET'.

However as discussed in Section 2, very few individuals are likely to be affected. And this is already a feature of the system due to the presence of annual and lifetime allowances that place a limit on the amount of contributions that are 'E' rather than 'T'. The disadvantage is also significantly reduced by the continued presence of the tax-free lump sum and of employer NICs relief. From the perspective of progressivity, the practice of double-taxation for a minority is preferable to the current situation in which significant numbers of savers take advantage of lower marginal tax rates in retirement.[26]

A stronger argument against a single rate relates to the added administrative complexity it would be likely to introduce. This stems from the fact that a flat rate would mean that it would no longer be possible to leave all pension contributions untaxed. Indeed, the simplest approach for implementing such a system is likely to involve taxation of *all* pension contributions followed by claims for relief at source at the flat rate. For defined benefit schemes in particular, employers would need to estimate the value of 'deemed' contributions accruing to higher or additional rate taxpayers in order to pay some tax on those contributions. This is both difficult and runs the risk of reducing transparency for savers.

This added complexity, and the changed incentives facing different bands of taxpayers, would of course be likely to generate some behavioural change. As stated, our estimates take no account of this due to the extreme uncertainty surrounding the net effects. Nonetheless, this uncertainty itself forms another reason for taking a cautious approach to any such reform. In the next section we consider a still more radical option – shifting to a tax-exempt-exempt ('TEE') approach.

[25] For example, a £100 gross contribution would become £60 after tax. As a 25 per cent rate is equivalent to 33 per cent matching they would receive £20 in relief, leaving £20 of income tax paid.

[26] It might be possible to have a maximum tax rate on pension income but this would add considerable complexity.

i Box 4: Abolishing employee NICs on employee contributions

While not much discussed alongside the government's pension tax relief reform consultation, one alternative for increasing the generosity of the pension tax system for basic rate taxpayers would be to abolish or reduce employee NICs on employee contributions. These are currently taxed at 12 per cent for basic rate taxpayers and 2 per cent for higher earners.

Undertaken in isolation, such abolition would cost around £2 billion by 2018. Table 4 sets out how this extra cost would be felt by the same three example individuals discussed earlier in this section. It shows that the NICs move alone would boost the pension pot of the NLW worker by £1,900, the median worker by £4,800 and the higher earner £1,400.

If accompanied by a flat income tax rate of 20 per cent, the NICs abolition would raise over £7 billion net,i with the NLW and median workers better off than in the status quo and the higher earner significantly worse off (though the negative impact is a bit lower than the one recorded in Table 3 in the absence of the NICs move).

Abolition of employee NICs on employee contributions would also reduce the tax differences between employer and employee contributions. Individuals would then have no direct incentive to partake in salary sacrifice, though employers still would. (It would be possible to also provide employer NICs relief on employee contributions but this would be more complex and costly.) Employee contributions are set to become more important (particularly for low earners) as the auto-enrolment minimums increase from 1 per cent for both employer and employee to 3 per cent for the employer and 5 per cent for the employee.

While it would align the income tax and employee NICs treatment of pension contributions, it would mean that contributions were never taxed by employee NICs (as is already the case for employer contributions). It is possible that employee NICs could eventually be levied on pension receipt – delivering a consistent EET treatment for both employee NICs and income tax – but that does not appear to be on the agenda.

i This combination would mean a higher overall rate of relief for basic rate taxpayers – at 32 per cent – than for higher and additional rate taxpayers – at 22 per cent, but this is a function of the regressivity of NICs and would be true for employer contributions under any flat rate scheme.

Table 4: Net value of pension pot at retirement for current 30 year old employees with impact of abolishing employee NICs on employee contributions, with or without flat income tax relief (2016 earnings terms)

	Total net value of pension saving available after retirement				
	Current system	NICs abolition in isolation	NICs abolition + flat 20%	NICs abolition + flat 25%	NICs abolition + flat 30%
Full-time NLW earner					
Auto-enrolled; minimum employer and employee contributions	£22,100	+£1,900	+£1,900	+£3,500	+£5,300
Basic rate taxpayer before retirement		+9%	+9%	+16%	+24%
Not liable for tax after retirement					
Full-time median earner					
Auto-enrolled; average employer and employee contributions (9% combined)	£83,100	+£4,800	+£4,800	+£10,300	+£16,700
Basic rate taxpayer before retirement		+6%	+6%	+12%	+20%
Basic rate taxpayer after retirement					
Full-time higher earner (£60k)					
Auto-enrolled; average employer and employee contributions (9% combined)	£159,000	+£1,400	-£37,500	-£29,700	-£20,800
HIgher rate taxpayer before retirement		+1%	-24%	-19%	-13%
Basic rate taxpayer after retirement					

Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

Section 4

ISA-style pension reform

Even more radical than a flat rate of pension income tax relief would be to shift to a 'TEE' system, with up-front taxation and no taxation thereafter. Most likely the government would provide some form of capped matching in order to incentivise saving. As ever the details matter, but such an approach could both save the government money and make the system less regressive by both removing the tax-free lump sum and restricting opportunities for gaining tax relief (on contributions) at the higher rate but paying it (on receipts) at the basic rate.

While this reform is no longer expected to make an appearance at Budget 2016, the Chancellor has been clear about his preference for such change. That it appears to be off the agenda for now reflects both the significant losses that would be generated for higher income individuals and the wider risks it would pose to the pensions industry. There may also be a timing issue, with the European referendum making this a politically difficult time to take on a potentially controversial reform. In this section, we review the potential features of such a 'TEE' system and spend some time considering the fiscal implications, the distributional outcomes and the practical considerations that have ultimately won the day.

Taxing contributions but not receipts would mark a radical shift of approach

Announcing the pension reform consultation at last year's Summer Budget, the Chancellor said that he was open to "radical change", describing a new system in which pension contributions come from taxed income and receipts are tax free.[27] Such a 'TEE' system would bring pensions taxation into line with that of ISA saving, most bank accounts (from April 2016) and owner-occupied housing. It would also more closely correspond to the NICs treatment of employee pension contributions.

A pure 'TEE' approach would reduce pension outcomes overall for three reasons. First, significant numbers of savers pay a lower rate of tax on their pension incomes than they receive in tax relief: under 'TEE' this advantage is removed. What's more, this is not just a question of the marginal (or highest) rate a person pays but that in retirement even a higher rate taxpayer would have some of their pension receipt covered by the income tax personal allowance, and potentially the majority covered by the basic rate of tax. In contrast, their contributions might all receive up-front tax relief at the higher rate and under 'TEE' this relief would disappear. Thirdly, by making all tax receipts exempt from tax, the 25 per cent tax-free lump sum offer is negated with no corresponding equivalent in 'TEE'.

By way of continuing to make pensions more attractive than other forms of saving, the Chancellor therefore raised the prospect of providing some form of "top-up" or government matching on contributions.[28] For example, among non-taxpayers in retirement, the current tax relief approach effectively offers 'EEE': to ensure working-age basic rate taxpayers are no worse off under 'TEE' a matching rate of at least 25 per cent would be needed.

[27] HMT, *Chancellor George Osborne's Summer Budget 2015 speech*, 8 July 2015

[28] This could take many forms, but the analysis in this section assumes a flat matching rate for simplicity.

As discussed in Section 3, matching is arguably easier to communicate to savers than the current tax relief approach is – not least because the distinction between tax deferral and government subsidy would become more transparent. Where tax relief provides only a means of deferral for some savers (going further for those who face a lower marginal tax rate in retirement), a matched contribution under 'TEE' would be clearly marketed as a straight subsidy.

Most likely, reform would involve a new annual cap, with the choice of level having a significant impact on the generosity of the scheme and the distribution of gains.

To consider by way of example what level of annual pension saving might be sufficient to not warrant further public subsidy, we consider the case of a person on the threshold for paying higher rate income tax (currently £42,385) and making total employee and employer contributions of 8 per cent (in line with the minimum contribution targeted under auto-enrolment in the coming years). This corresponds with an annual pension contribution of £2,925.[29]

Under an alternative 'TEE' approach with 50 per cent matching (where each £1 contribution is topped-up by 50p – which is equivalent to 33 per cent tax relief), a similar £3,000 a year net contribution would comprise a £2,000 employer/employee contribution and a £1,000 government top-up. Where we include a cap in our modelling below, we therefore use £1,000 as an example.

This cap-and-match approach has parallels with the recently introduced Help to Buy ISA, where the government matches contributions with 25p per £1, up to a £600 public contribution per year (excluding an initial bonus). It is also similar to New Zealand's up-front pension tax system in which 50 per cent matching is capped at around $500 a year. It would of course raise the possibility that higher earners would save only to the limit of the cap – the 'sweet spot' – but this could be overcome by making the matching subsidy conditional on an individual meeting the auto-enrolment minimum contribution rates, for example.

A high match and modest cap has several distributional benefits

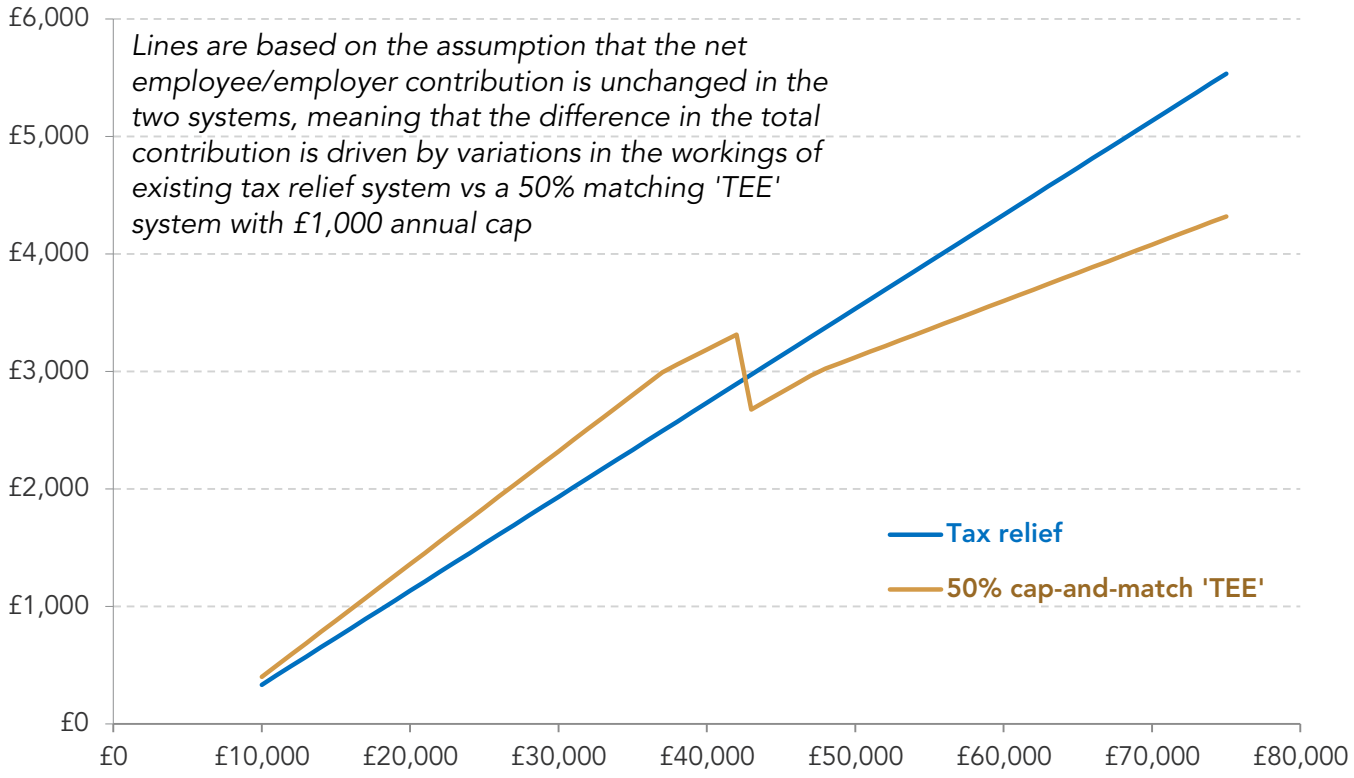
'TEE' need not follow the precise specification set out above of course. However, it seems probable that any reform would contain the matching and cap elements we have discussed and that these would be set at levels designed to reduce both the regressivity and overall cost of incentivising pension saving. Therefore it is worth considering the implications of such a system, if only for illustrative purposes.

Figure 10 shows how annual pension contributions might compare to the status quo at different salary points. It is based on the assumption that take-home pay is unaffected. That is, the 'net' employee/employer contribution is unchanged and the difference between the current 'tax relief' approach and our 'cap-and-match' version of 'TEE' comes down to variations in the level of public support in the two systems.

[29] Contributions are payable on earnings above a lower qualifying level of £5,824 in 2015-16, meaning the calculation here is (£42,385-£5,824)*8% = £2,925.

Figure 10: Illustrative annual pension contributions under alternative approaches

Illustrative annual pension contribution (after accounting for tax relief/government top-up), by salary



Notes: The 'tax relief' baseline is based on 8 per cent employee/employer contributions. In order to establish a 'cap-and-match' schedule, we must calculate the equivalent 'net' employee/employer contribution associated with each point in the 'gross' tax relief schedule. To do so, we remove the appropriate level of tax relief from the gross contribution. For ease of comparison, NICs are not included. Once the net contribution is established, we create the gross cap-and-match schedule by applying a 50 per cent mark-up subject to a £1,000 limit.

Source: RF modelling

Of course, this cannot be said to truly capture the 'generosity' of the two approaches. After all, some of the contribution contained within the tax relief approach relates to deferred taxation (and is therefore ultimately returned to the government); whereas the cap-and-match line more directly measures the effect of government subsidy. To put it another way, the future income associated with the contributions detailed by the blue line will (in some instances) be subject to tax, while the future income associated with the gold line will be tax-free.

In addition to accounting for the removal of the advantage associated with falling marginal tax rates in retirement, a fuller distributional assessment must also incorporate the removal of the tax-free lump sum. As discussed in Section 2, both of these elements of the status quo favour higher earners.

In Table 5, we return to the three example individuals we considered in the previous section. It highlights the difficulty of introducing 'TEE' without a matching contribution, with all three individuals experiencing sharp falls in their pension pots. More specifically:

» The NLW earner loses with a 20 per cent match because their income is such that they actually face an effective 'EEE' in the current system. It is only when the 'TEE' match reaches 25 per cent that this person breaks even. They do better as the size of the match increases and are unaffected by the introduction of a cap because they do not breach this limit. Taking the 50

[30] The discontinuity in the line for the TEE schedule is due to the fall in net pension contribution that occurs when a higher salary moves pension contributions from the basic rate to the higher rate, while maintaining the same 8 per cent gross contribution.

per cent match with a cap discussed above, the value of their pension pot is estimated to be one-fifth (20 per cent) higher than in the current system.

» The median earner secures a slightly increased pension pot even with 20 per cent matching, because they are no longer subject to tax in retirement under 'TEE'. Again they do better as the matching rate is raised, but they are very slightly affected by the subsequent introduction of a cap. Nevertheless, their pot would be around one-quarter (26 per cent) higher under a cap-and-match scheme at 50 per cent.

» The higher earner records very sizeable reductions in the value of their pension pot, reflecting both the removal of the significant advantages they gain in the current system and the fact that they save more than the other two individuals. Their loss is eroded as the size of the match rises, but is only removed altogether once it hits 50 per cent. Imposing a £1,000 cap would alter this outcome however, leaving their pot 12 per cent lower than the current system.

Table 5: Net value of pension pot at retirement for current 30 year old employees under current and 'TEE' schemes (2016 earnings terms)

		Total net value of pension saving available after retirement					
	Current system	'TEE' no match	'TEE' 20% match	'TEE' 25% match	'TEE' 30% match	'TEE' 50% match	'TEE' 50% match and £1k cap
Full-time **NLW** earner							
Auto-enrolled; **minimum** employer and employee contributions	£22,100	-£4,400	-£900	+£0	+£900	+£4,400	+£4,400
Basic rate taxpayer before retirement		-20%	-4%	+0%	+4%	+20%	+20%
Not liable for tax after retirement							
Full-time **median** earner							
Auto-enrolled; **average** employer and employee contributions (9% combined)	£83,100	-£11,100	+£3,300	+£6,900	+£10,500	+£24,900	+£21,400
Basic rate taxpayer before retirement		-13%	+4%	+8%	+13%	+30%	+26%
Basic rate taxpayer after retirement							
Full-time **higher** earner (£60k)							
Auto-enrolled; **average** employer and employee contributions (9% combined)	£159,000	-£52,500	-£31,200	-£25,900	-£20,600	+£700	-£19,700
Higher rate taxpayer before retirement		-33%	-20%	-16%	-13%	+0%	-12%
Basic rate taxpayer after retirement							

Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

And it could be introduced in a way that delivers fiscal gains

Measuring the fiscal impact of a matched 'TEE' system requires distinguishing between issues of timing and generosity.

By taxing today's contributions rather than tomorrow's receipts, the move would obviously boost the public finances in the short-term but reduce them in the longer-term. This is clearly a simple function of timing, though choices over how to allocate the money raised in the short-term will have important fiscal and distributional implications.

As discussed above however, there is a clear potential to derive additional *permanent* fiscal gains. These flow from the ending of the lifetime smoothing option (removing the advantage some savers get from receiving relief at a higher rate in their working life than they ultimately pay on their pension income in retirement) and from the fact that some of the subsidy provided by the current system flows from the 25 per cent tax-free lump sum which will no longer be available.

The actual scale of the savings made will of course depend both on the size of the match provided by government and by the level of the cap placed on this. But modelling the cap is difficult given the lack of granular projected on pension contributions. It's also likely that the introduction of a cap would result in significant behavioural change.

As a very simple thought experiment, we can consider the sums involved in giving all pension savers £1,000 a year. In effect, this is the maximum annual government subsidy available under a matched 'TEE' scheme capped at this level. With the number of savers expected to reach 22 million once auto-enrolment roll-out is complete in 2018, this is equivalent to around £22 billion a year. This is broadly in line with the net in-year cost of income tax relief in the existing system as described in Section 2 (it was just over £21 billion in 2014-15). However, not all savers would reach the £1,000 cap under a 'TEE' matching scheme so the actual cost of such a subsidy would be considerably smaller. A scheme which in one way or another gave an average of £500 a year per saver would cost £11 billion in 2018.[31]

It should be reiterated that these are rough illustrations (and do not explore the potential impacts of a 'TEE' scheme forgoing the revenue on investment returns, as discussed in Box 5). Nevertheless, it illustrates the potential opportunity for fiscal savings – as well as a generous matching scheme – that might be available under a 'TEE' approach.

i Box 5: Super-normal returns and 'TEE'

As noted in Section 2, the current 'EET' system ensures that any super-normal returns on pension investments are taxed, by means of taxing the associated income in retirement. In a pure 'TEE' system, these returns would not be taxed – no matter how high. This is the case for most ISA and (from April 2016) bank account saving but there exceptionally high returns are largely not possible and there are limits on tax-free saving.

On the other hand, in a 'TEE' system the government has the advantage of receiving taxes up-front. But in most models this trade off costs the government money because it is assumed that the returns on pension fund investment are higher (at 5.7 per cent per year) than the government's own cost of borrowing. The real future level of this "equity premium" is a key unknown.i

With most capital taxation, it would be unwise to entirely exempt returns from taxation. Those who are very lucky should be taxed just as those who work very hard are; similarly, incentives to disguise earned income as investment returns should be minimised. With pensions this seems less of a worry. Investments are highly diversified, meaning most people receive similar gains and there are fewer opportunities for abuse. However, the same element of chance is present at a *cohort* level. Some generations will retire on the backs of particularly good investment growth, while others may be hit by downturns. In a 'TEE' system, there would be less sharing of risk than under 'EET'.

It would of course be possible to tax the returns by creating a 'TTE' system as is used in New Zealand, though this would complicate the comparison of pensions to other savings. This report does not explore the optimal way to tax returns, particularly given the interactions with any subsidy from any matching under 'TEE'. Nonetheless we note that a case could be made for such an approach, or at least that more restrictions might need to be placed on pensions savings under a 'TEE' scheme in order that those with high capital income could not avoid all tax.

i A Armstrong, An economic analysis of the existing taxation of pensioners (EET) versus an alternative regime (TEE), NIESR

[31] For comparison see M Johnson, *The 2016 Budget: Pensions*, CPS, February 2016 which suggested that an incentive scheme be designed to fit within an annual spending envelope of no more than £12 billion.

But transitioning to 'TEE' would raise significant practical complications

As with the flat rate of tax relief option discussed in Section 3, shifting to ISA-style pensions would raise a number of practical considerations. Indeed, by representing a more radical change of direction, 'TEE' would introduce even more uncertainty.

First there is the question of how savers would be transitioned onto 'TEE'. It would be inappropriate and staggeringly expensive to simply stop taxing pension receipts with immediate effect. Existing pension pots would, primarily at least, need to continue to operate under the current 'EET' approach. This means that any new 'TEE' system would likely need to operate in tandem with the existing regime, producing significant complexity in the system. Pension funds would need to record which contributions were to be taxed in retirement and which weren't (raising the same barrier for defined benefit pension schemes that we discussed in the last section), and it would take until after 2100 for everyone with some 'EET' pension saving to have died.

Alternative approaches might be possible – such as the use of one-off taxes to move some or all existing savers from 'EET' to 'TEE' (wherein they'd pay no more tax in future). But calculating a fair exchange is not straightforward, depending as it does on the tax rates the affected individuals would pay in retirement. There is a high likelihood of individuals and cohorts receiving arbitrary windfalls or losses. New Zealand's experience – described in Box 6 – provides a warning of the potential pitfalls.

i Box 6: Pension reform in New Zealand

As part of a wider move to try and simplify their tax system, New Zealand moved from an 'EET' tax system (with a 25 per cent tax-free lump sum as in the UK) to what was effectively a 'TTE' model (but with some investment income being taxed at a preferential rate) between 1988 and 1990.

The transition was immediate, resulting in the closure of some occupational funds and the transfer of some defined benefit schemes into defined contribution ones. There was widespread misunderstanding about what the changes meant for disposable incomes and anger from some savers who felt they were losing out. New and existing retirees were granted access to tax-free drawdown, but faced having their accrued benefits reduced to reflect the new regime. Yet in practice many schemes maintained the value of existing funds, meaning those on the highest marginal tax rates and with the largest pension funds received often sizeable windfall gains.[i]

The new regime produced a collapse in pension saving in New Zealand over the following years, with occupational pension coverage dropping from around 23 per cent of the employed workforce in 1990 to just 15 per cent in 2006. [ii] Conversely, speculation in housing – which remained tax advantaged – increased.

There were repeated calls for change over the next 15 years, largely tied to arguments about higher savings and investment rates in Australia. In response to that pressure, rather than moving away from the 'TTE' regime, the government introduced a form of auto-enrolment in 2007, combined with a generous but capped form of matching. This sat alongside a relatively generous state pension baseline.

Evaluation of this new 'KiwiSaver' suggests that it was effective at getting people saving for the first time: half of the population below the age of 65 are members of the scheme.[iii] But (as per wider matched saving evidence) people in many cases only save up to the point at which the match is exhausted. So the result is an increase from low levels of the numbers saving but still very low aggregate savings.

Kiwisaver savings can be accessed early in some – but not all – circumstances, such as in order to provide a deposit on a first home or if the account holder is seriously ill or facing "significant financial hardship".[iv] The generosity of the scheme has been cut over time, with the $1,000 'kick-start' bonus available when initially opening the KiwiSaver (but not available to those wishing to take out money early to buy their first home or because of hardship) being scrapped in 2015 and the annual cap on the 50 per cent matching of roughly $1,040 being halved to just $520 from 2011.

i S St John, "KiwiSaver and the Tax Treatment of Retirement Saving in NZ", New Zealand Economic Papers, 41 (2), 2007, 251-268

ii S Collard & N Moore, Review of international pension reform, DWP, 2010

ii G Rashbrooke reported in ABI, Strengthening the incentive to save: a consultation on pensions tax relief. Consultation response from the Association of British Insurers, September 2015

iv Kiwisaver website

Grandfathering the policy on a cohort basis (rather than on the basic of existing pots) might offer another alternative, with all those above a certain age (say, 30) remaining on an 'EET' basis while those below that age would move to 'TEE' (perhaps accompanied by a one-off tax on their existing savings). Again though this adds complexity. In addition, it would inevitably raise questions about which group was better off and how employers might react. A cohort approach would even lend itself to a reduction in higher rate relief for those still on an EET basis, meaning that both reforms explored in this paper would be introduced.

The pensions industry has pointed out that these potential new complexities would come on top of a raft of changes to pensions and pay that are already requiring significant employer attention, including the introduction of the National Living Wage, auto-enrolment roll-out and the tapering of the annual allowance. Box 7 discusses the potential effect of 'TEE' on minimum auto-enrolment contribution rates.

i Box 7: The impact of reform on minimum auto-enrolment rates

As shown in Section 2, by 2019-20 the minimum pension contribution rates within auto-enrolment are expected to be 3 per cent for employers and 5 per cent for employees. This includes the value of income tax relief. But where the generosity of tax relief is increased or reduced under any future reform, there is an open question about whether this should lead to higher or lower auto-enrolment minimums, or whether it should simply make them less or more stretching.

For example, the auto-enrolment minimum of 5 per cent among basic rate taxpayers includes 1 per cent from income tax relief. If a 33 per cent flat rate (or 50 per cent matching contribution) were introduced, that minimum might be increased to 6 per cent without requiring any increased contribution from the employee themselves.

Note also that should the auto-enrolment minimums be increased further in future, as many have suggested, this would increase the cost of the reforms discussed in this report and of progressive changes in particular.

As noted above, reform would also be likely to produce significant behavioural change. Research by the ABI suggested that pension saving might also be undermined by concerns among savers that future governments might reverse the promise of tax exemption in retirement.[32] At the very least, a much less generous treatment of pension savings for higher earners (who are best placed to make significant savings) brings with it a clear risk of a reduction in the overall level of money being put aside in this way.

This in turn could produce macroeconomic effects, with lower aggregate saving having a potential impact on investment (though clearly global savings rates would also be important here[33]). Perhaps more straightforwardly, reduced pension saving among higher earners might be expected to result in additional funds being put into the UK housing market instead, driving up house prices and adding to the already growing divide between homeowners and renters.[34]

[32] Only 19 per cent of respondents said they trusted government to leave their pension savings untouched. ABI, *Strengthening the incentive to save: a consultation on pensions tax relief. Consultation response from the Association of British Insurers*, September 2015

[33] See M Whittaker, *Renewed Interest: the role of monetary policy in crisis and beyond*, Resolution Foundation, January 2016 for a longer discussion of global savings and investment rates.

[34] See for example, A Armstrong, *An economic analysis of the existing taxation of pensioners (EET) versus an alternative regime (TEE)*, NIESR.

Variations on the approach could involve removing NICs relief on employer contributions too

As noted above, 'TEE' for income tax would align it with the treatment of NICs on employee contributions to pensions. However, uncapped 'EEE' treatment would remain in place for employer and employee NICs on employer contributions. Removing this exemption would be very unpopular among firms: research by Aviva suggests that four-fifths (82 per cent) of businesses say that maintaining the relief is "very important".[35] However, the sums involved are significant (around £14 billion a year) and therefore could come up for debate at some point, particularly if this is considered to be one means of funding a generous match on contributions.

Returning once more to the three example individuals used throughout this report, Table 6 sets out the illustrative effect of simultaneously moving towards 'TEE' and removing the NICs relief on employer contributions. This would create a consistent 'TEE' approach for both income tax and NICs, and both employers and employees. Relative to the findings in Table 5, it shows that the value of each individual's pension pot would be reduced somewhat (assuming that tax increases are passed on to employees), with the effect being most sizeable for the low and middle earners. Nevertheless, relative to the status quo, a 50 per cent match and £1,000 cap would still provide a sizeable boost to the savings pots of the NLW and median earners. And in this instance the fiscal savings would be greater.

Table 6: Net value of pension pot at retirement for current 30 year old employees under current and 'TEE' schemes with employer NICs relief scrapped (2016 earnings terms)

	Total net value of pension saving available after retirement						
	Current system	'TEE' no match + no NICs relief	'TEE' 20% match + no NICs relief	'TEE' 25% match + no NICs relief	'TEE' 30% match + no NICs relief	'TEE' 50% match + no NICs relief	'TEE' 50% match + £1k cap + no NICs relief
Full-time **NLW** earner Auto-enrolled; **minimum** employer and employee contributions **Basic rate** taxpayer before retirement **Not liable** for tax after retirement	£22,100	-£5,900	-£2,700	-£1,900	-£1,100	+£2,100	+£2,100
	change	-27%	-12%	-9%	-5%	+10%	+10%
Full-time **median** earner Auto-enrolled; **average** employer and employee contributions (9% combined) **Basic rate** taxpayer before retirement **Basic rate** taxpayer after retirement	£83,100	-£20,100	-£7,600	-£4,400	-£1,300	+£11,300	+£10,900
	change	-24%	-9%	-5%	-2%	+14%	+13%
Full-time **higher** earner (£60k) Auto-enrolled; **average** employer and employee contributions (9% combined) **Higher rate** taxpayer before retirement **Basic rate** taxpayer after retirement	£159,000	-£60,700	-£41,000	-£36,100	-£31,200	-£11,600	-£27,800
	change	-38%	-26%	-23%	-20%	-7%	-17%

Source: PPI modelling for RF. See Annexes 1 and 2 for more details of this modelling.

'TEE' might also lend itself to more flexible pensions (or their abolition)

A move to 'TEE' would by itself be very radical. But it's possible that it could be accompanied by an equally radical reform to pensions themselves. Paralleling ISAs for example, people might be allowed to dip into their pension pots at any age (rather than only from age 55). As with the KiwiSaver in New Zealand (see Box 6), access could be restricted to certain uses (such as when facing financial hardship).

[35] Aviva, "Pension ISAs will reduce saving levels", press notice, 2 October 2015

In a recent speech, the Prime Minister said that:

> *"We'll also to do more to help people save – and help build families' financial resilience. Those with no savings at all have no buffer – no shock absorber – for when unexpected events hit. I can announce today that we intend to bring forward a 'help to save' scheme to encourage those on low incomes to build up a rainy day fund and full details of this scheme will be announced at the Budget."*[36]

Flexibility certainly has its merits. It could, for example, reduce the disincentive to lock money away in a pension pot among those who believe that they will need access to a savings buffer in the medium term. With auto-enrolment extending pension saving to many more people on lower incomes, this could become of greater importance. And more flexibility means correspondingly less need for tax incentives, with the system instead concentrating on boosting savings among those with the least wealth and on lowest incomes.

To overcome the risk of myopia, whereby significant numbers approach retirement having already consumed a large part of their pensions pot, the government's matching offer could be part-conditional on delaying access. For example, a 50 per cent match could be recast as a 25/25 offer: each £1 of saving would be matched by an immediate 25p of government contribution, with a further 25p being credited if the money remains in the pot until age 55. Alternatively, limits could be placed on the proportion of the pot that can be accessed ahead of retirement.

As ever the details would matter immensely, but it is clear that the introduction of significant flexibility has the potential to effectively remove pensions as a product. That is, the increased liquidity associated with flexibility would undermine the ability of the industry to invest funds in long-term vehicles. The effect of such a radical overhaul would of course be unknowable, but it would almost certainly meet strong opposition from the pensions industry.

Any move towards greater flexibility of access to the pension pot will also throw up questions in relation to benefit receipt. Currently, pension contributions are not counted as income for the purpose of means-testing tax credits. This gives tax credit recipients a substantial incentive to increase their employee pension contribution at the expense of take-home pay (if they can afford to do so). A £1 (pre-tax) pension contribution will lead to a 41p increase in tax credit receipt. And the incentive will rise further under Universal Credit, with a £1 (post-tax) contribution leading to a 65p increase in support.

Conversely, the Resolution Foundation's review of Universal Credit concluded that the harsher treatment of other forms of saving (such as ISAs) when undertaking means-testing for those in-work greatly reduces the incentive to save through conventional means.[37] Clearly any move towards shifting pension saving towards the ISA model would therefore come with potential disincentive effects.

In the short-term, moving towards such a radical change of direction on pension savings – or indeed any of the reforms discussed in the last two sections – appears to be off the agenda. However, this debate is likely to resurface over the course of the parliament, as we discuss in the next concluding section.

[36] Prime Minister's speech on life chances, 11 January 2016

[37] D Finch, *Making the most of UC: Final report of the Resolution Foundation review of Universal Credit*, June 2015

Section 5

Conclusions

There are many good reasons for wanting to consider approaches to reforming the current system of pension tax relief. The current model is expensive and highly regressive, yet too many people still enter retirement with inadequate incomes. To the extent that progress has been made in this area in recent years, it has largely been driven by the introduction of auto-enrolment. Existing financial incentives appear to be poorly tailored to the needs of lower income individuals in particular.

Both of the main options for reform that have been discussed in advance of the Budget – moving either to a single rate of tax relief or shifting towards a 'TEE' system with a capped matching contribution from government – have the potential to save the government money, make the system less regressive and better target incentives on those with the greatest need. Yet the reforms appear to be off the agenda. For now.

Given the range of unknowns associated with any move – and especially with the radical move towards 'TEE' favoured by the Chancellor – this outcome is perhaps unsurprising. But it appears that timing has played a key role in this decision too. In part this reflects the fact that the pensions industry is already dealing with significant change – in relation to auto-enrolment and the new pension 'freedoms' introduced from April 2015 for example.

But in part it is political too. Given the potential for the biggest losses under 'TEE' to be felt by those with middle and higher incomes, any reform along these lines would be likely to create some controversy within the government. With the European referendum already opening up debate within the Conservative party, the Chancellor appears to have decided to avoid opening up another potential point of contention.

Yet these timing issues might be expected to diminish over the coming years, raising the prospect of reform later in the parliament. Given the scale of the sums involved and the clear weaknesses in the current approach, further debate would be welcome. We are clear that any eventual reform should deal with the inequity that is inherent in the provision of tax relief and we believe there is scope to make fiscal savings along the way. But we are equally clear that reform would bring significant practical risks with it and must therefore be approached carefully. While the post-Summer Budget consultation has raised a range of issues for consideration, we hope that any future decision builds on a second, more detailed consultation – with the government setting out a very clear articulation of the approach it wishes to debate.

Annex 1: Pensions Policy Institute individual calculations

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

Example savers

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

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

Figures in the body of this report are for the impact in retirement for individuals currently age 30. It is assumed that they are continuously in employment, with a retirement age that rises to 69 by 2048.

Modelling pension contributions

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

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

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

The net value of pension pot at retirement

The individual results present a hypothetical net-of-tax pension value at retirement, expressed in current (2016) earnings terms. What this means is that the potential income resulting from the pension fund is projected (allowing for a 25 per cent tax free lump sum where appropriate), along with the tax that would be payable on that income. The stream of net income is then collapsed back into a single figure. This can be considered as representative of the fund available to the individual, after taking into account that some of their pension fund will be subject to tax. This figure is called the 'net value of pension pot at retirement' in the analysis. In calculating their tax bill, it is assumed that the full state pension is received and that there is no other source of income besides this and the private pension.

Assumptions

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

Annex 2: The Pensions Policy Institute Aggregate Model

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

Overview of Aggregate Modelling of Private Pensions

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

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

Initial Conditions

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

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

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

Movement of individuals between schemes due to decline in DB schemes

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

Movement of individuals between schemes post automatic enrolment

From 2012, employees in the private sector without workplace DC provision are placed in a scheme to represent automatic enrolment, which is split further into master-trust schemes and other DC schemes, assuming 57 per cent are automatically enrolled into master-trusts and the remaining into other DC schemes. Individuals are enrolled in proportion to the likely number of employees becoming eligible each year due to staging of their employers. Similarly, during the staging period, employees in existing DC schemes who become eligible for automatic enrolment either remain in the existing scheme or are moved to a new automatic enrolment workplace DC scheme (again split into master-trusts and other DC schemes in the same proportions as mentioned above). It is assumed that 80 per cent of existing members remain in their current scheme, and 20 per cent

are expected to move to the new automatic enrolment scheme. New members to DC schemes who have an employer with an existing scheme either join the new automatic enrolment scheme (80 per cent) or join an existing DC scheme (20 per cent).

Overall, after 2012 the private sector workforce is assumed to contribute to either private sector DB pension schemes, DC schemes which were existing prior to automatic enrolment, DC which were set up for automatic enrolment, or schemes set up for those that are eligible for automatic enrolment that did not contribute before the implementation of automatic enrolment. It is assumed that 14 per cent[38] of the workforce change jobs from year to year, which causes individuals to shift from existing DC schemes into new DC automatic enrolment schemes over time.

Contributions

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

When automatically enrolled, individuals and their employers are assumed to contribute at the minimum levels required under automatic enrolment legislation (phased in from a combined contribution of 2 per cent of band salary in 2012, rising to 8 per cent of band salary in 2019 in accordance with existing regulations) unless otherwise stated.

General assumptions

Fund charges are assumed to be 0.75 per cent for existing workplace DC schemes,[39] and 0.5 per cent for other DC/master-trust schemes set up for automatic enrolment.[40]

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

[38] Average annual workforce churn. DWP *Making automatic enrolment work: A review for the Department of Work and Pensions*

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

[40] Equivalent annual management charge for multi-employer/Mastertrust schemes such as Legal and General's Worksave, NEST and The People's Pension.

Resolution Foundation

Resolution Foundation is an independent research and policy organisation. Our goal is to improve the lives of people with low to middle incomes by delivering change in areas where they are currently disadvantaged. We do this by:

- *undertaking research and economic analysis to understand the challenges facing people on a low to middle income;*
- *developing practical and effective policy proposals; and*
- *engaging with policy makers and stakeholders to influence decision-making and bring about change.*

For more information on this report, contact:

Adam Corlett
Economic Analyst
adam.corlett@resolutionfoundation.org
020 3372 2983