Pensions Policy Institute

PPI

The new pensions landscape

'The new pensions landscape' is sponsored by the Association of British Insurers (ABI), the Chartered Insurance Institute (CII), the Department for Work and Pensions (DWP), the Pensions and Lifetime Savings Association (PLSA) and The People's Pension.

The PPI is grateful for the support of the following research series sponsors:

Sponsorship has been given to help fund the research and does not imply agreement with, or support for, the analysis or findings from the project.

A Research Report by Jackie Wells, Melissa Echalier, John Adams, Daniela Silcock, and Sarah Luheshi.

Published by the Pensions Policy Institute

ISBN 978-1-906284-47-3
www.pensionspolicyinstitute.org.uk

The new pensions landscape

Executive Summary

In 2003, the PPI published the *Pensions Landscape report* which found that pensioners' incomes had risen since 1998 but inequality had increased. Both the state and employers were looking to reduce their pension commitments, making future pension incomes uncertain.

The pensions landscape has changed significantly since 2003, largely as a result of reforms which arose from findings of the Pensions Commission's reports.

It is not yet clear how these reforms will work together, and what the overall impact on individuals is likely to be. The PPI has therefore undertaken research to look at the potential impact of all of these combined reforms.

The **new pensions landscape** brings together existing and new PPI research to consider the likely outcomes for individuals as a result of the suite of reforms. Broadly, pensioner incomes are growing although recently retired pensioners may have higher incomes than later generations. The new State Pension and the triple lock are the policies which have had the most significant effect on boosting incomes. However, there are still 1.6 million pensioners in poverty.

Future cohorts may have lower levels of pension income than those recently retired, although pensioners are better off on average than they have ever been

- The policy environment since 2003 has generally improved the incomes of today's pensioners with the new State Pension and the triple lock in particular, boosting incomes.
- Different policies have had a differential effect on the selected individuals modelled in this report according to their characteristics.
- Broadly, individuals modelled who were aged 50 to 54 in 2010 (and therefore 56 to 60 in 2016) have lower projected retirement incomes, and a narrower range of pension incomes than those aged 55 to 64 in 2010.[1] This is because older individuals are more likely to receive more income from Defined Benefit pensions on average and because, due to lower State Pension ages (SPa), they are modelled to receive their State Pension for longer.
- Incomes in the middle of the income distribution are projected to increase more than those at the top of the income distribution.
- Men will continue to have higher retirement incomes than women, but women have experienced greater increases than men due to the pension landscape changes that took place between 2010 and 2016.

[1] This is the case under both the baseline scenario which models retirement incomes had the pension landscape changes between 2003 and 2016 not taken place, and the final scenario which assumes that they have.

Both automatic enrolment and the triple lock could increase retirement incomes while increases to State Pension age (SPa) could reduce retirement incomes

- The immediate impact of policy reforms since 2003 on the working age population are most apparent in pension participation levels arising from automatic enrolment, and the changes to the State Pension which affect both age of receipt and level of income.
- For those nearer SPa the triple lock has the most immediate effect of raising the level of State Pension income. Younger individuals may see significant effects from automatic enrolment but will have less certainty about the timing and level of their State Pension than older individuals.
- Automatic enrolment has reversed a trend of decreasing membership in workplace pensions but some groups continue to have more limited access, including those on incomes below the £10,000 earnings threshold and the self-employed.
- Increases to the State Pension age (SPa) decrease individuals' lifetime pension incomes relative to the baseline as a result of them starting to receive their State Pension later. However, SPa increases were designed to keep pace with increases in life expectancy. Therefore, some individuals will not receive less State Pension overall relative to previous generations, if they also have average or higher life expectancy.

In 2046, both the triple lock and the 2011 SPa increases will have influenced the proportion of GDP spent on state pensions

- Between 2016 and 2046 the proportion of GDP spent on state pensions is projected to increase from **5.3%** to **7.2%**. As well as the policy changes, demographic shift accounts for some of this increase.
- Over this time period the triple lock is projected to increase spending on state pensions by **2.3%** GDP and the 2011 SPa increases are projected to decrease spending by **0.3%** GDP.

The pension landscape in place from 2003 to 2016 has resulted in significant changes to the direction of travel for pensions, with a move towards the reduction of inequalities

- The research has indicated that future cohorts risk having lower incomes than those individuals who have recently retired. Concerns around the adequacy of retirement incomes and the long-term avoidance of pensioner poverty remain.

While incomes will be lower for those closest to retirement than for recent retirees, automatic enrolment could reverse this trend

- While the number and proportion of employees contributing to a pension have increased as a result of pension reforms, it remains much less certain that future retirement incomes will be as high as they are for recent retirees.
- The cohort analysis conducted as part of this report suggests that there are clear prospects for average retirement incomes of pensioners to fall as the cohorts closest to SPa retire over the next 10 years. However, automatic

enrolment should make this less likely for younger cohorts, depending on contribution levels.

1.6 million pensioners are still living in poverty

- Despite the increased incidence of younger pensioners working and the triple lock, an estimated 1.6 million pensioner households continue to live in relative poverty, defined as having less than 60% of UK median household income[2]; this is more commonly single women and older couples.

The pensions landscape implies clear priorities for the direction of travel of policy

- In many respects, the policy reforms of the past 13 years appear to have addressed many of the concerns raised in the 2003 PPI report. This is in no small part due to the focus on the principles set down by the Pensions Commission which called for an understanding of what pension, the state, the individual and their employers respectively need to provide, as well as the development of incentives to save that are beneficial and will remain relatively stable over time. Continuing to focus on these principles, and in particular, ensuring that there is no reversal to the progress being made through automatic enrolment, will be important.

Many policies have not yet had time to embed

- This project shows that many policies could significantly affect retirement incomes. Over the next few years policy-makers may wish to look closely at individuals', employers' and industry's behaviour. In order to fully understand the impact of policies there will need to be further research, monitoring and evaluation.
- However, this research cannot be definitive due to the large amount of uncertainty surrounding the pensions landscape, in particular the way in which individuals respond to reforms.

[2] https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/poverty-definitions.pdf

Introduction

In 2003, the Pensions Policy Institute published a paper *The Pensions Landscape*[3] summarising the then condition of UK pensions and setting out the policy shift required to ensure that the landscape improved for future generations of pensioners. The PPI report pre-dated the reports of the Pensions Commission.

The Pensions Landscape 2003 report found that pensioners' income had risen but there was greater inequality of income between pensioners. Both the state and employers were looking to reduce their pension commitments, making future pension incomes uncertain.

The pensions landscape has changed significantly since 2003 with reforms including those arising from the Pensions Commission's reports.

Some of these policy changes were introduced in isolation, such as freedom and choice, though many were part of an overall policy agenda aimed at working longer, higher saving levels and maintaining the sustainability of the State Pension. However, it is not yet clear how these reforms will work together, and what the overall impact on individuals is likely to be. The PPI has therefore undertaken research to look at the potential impact of all of these combined reforms.

The **new pensions landscape** brings together existing and new PPI research to consider the likely outcomes for individuals as a result of the suite of reforms.

The first chapter of the report provides an overview of the policy reforms that have taken place between 2003 and 2016.

The second chapter considers elements of the wider pensions landscape that have changed during the same period of time.

The third chapter provides findings from new PPI modelling that projects the possible outcomes from these policy and landscape changes.

The fourth chapter considers the policy implications of these developments.

[3] PPI (2003)

Chapter one: policy reforms 2003-2016

This chapter provides a brief overview of the findings from the 2003 Pensions Landscape report. It then sets out the principal policy changes between the publication of the 2003 PPI report and mid-year 2016.

The Pensions Landscape 2003 found that pensioners' income had risen but there was greater inequality of income between pensioners

First published in 2003 and updated in 2004, the PPI report 'The Pensions Landscape'[4] was the organisation's first comprehensive analysis of the then current landscape and the prospects for pension provision in the UK. The report pre-dated[5] the first report and recommendations of the Pensions Commission[6].

The PPI analysis concluded that:

- Both the state and employers were looking to reduce their pension commitments, making future pension incomes uncertain.
- Pensioners' incomes had risen in recent years, but so had the gap between the richest and the poorest with private pension income making the difference between rich and poor pensioners in 2003; the richest fifth of single pensioners had gross annual incomes of £19,000 a year and the poorest gross £4,600 a year.
- However, a quarter of pensioners, typically older pensioners, women, people from ethnic minorities and those who had been self-employed, were in relative poverty.
- Both the state and employers were reducing their long-term pension commitment, with state benefits falling relative to earnings and the provision and membership of workplace pensions and contributions to personal pensions in decline.
- Pension saving behaviour seemed unlikely to deliver more private pension income in future while alternative forms of saving were not widespread.
- While the make-up of pensioners' incomes looked set to change, there were no signs that future pensioners would be better off than the pensioners of 2003.

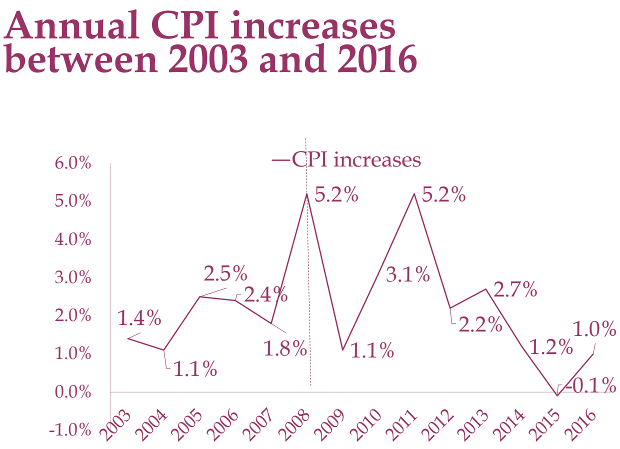
[4] PPI (2003)
[5] Pensions Commission (2004)
[6] Pensions Commission (2005)

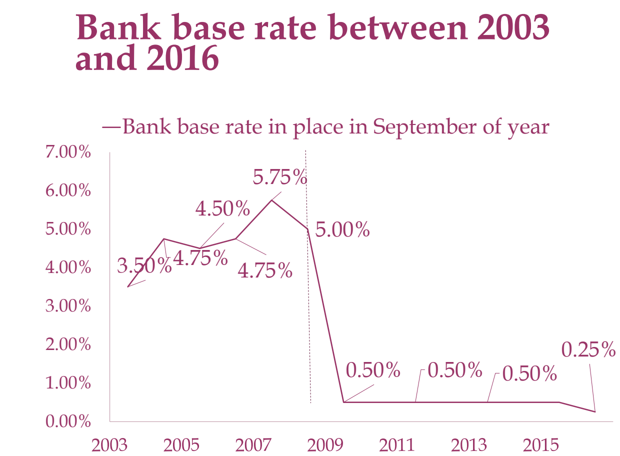
Box 1: The economic landscape[7]

Government, employer and consumer responses to pensions during the period have been shaped to some extent by the turbulent economic landscape, characterised by two distinct periods, before and after the global financial crisis:

2003-2007 characterised by (boom years)

- relatively **high** levels of **economic growth** with annual GDP growth of between **2.5%** and **4.3%**;
- **inflation** at between **1%** and **3%** per annum;
- **interest rates** rising from **3.75%** in 2003 to **5.75%** in 2007;
- an **employment rate** steady at around **73%**, **unemployment** steady at around **5%**;
- growth in **average earnings** rising gradually from **2.5%** per annum at the start of the period to **6.6%** just before the financial crisis.





[7] ONS and Bank of England statistics downloads

2008-2016 characterised by (bust years):
- two years of **falling GDP** as the global financial crisis affected the UK economy, followed by **6 years** of annual **GDP growth** of between **0.7%** and **2.9%**;
- two spikes in **inflation** to **5.2%** in 2008 and again in 2011, followed by a subsequent fall to close to **zero** in 2015 and 2016;
- Bank of England **base rate** of **0.5%** from January 2009 to August 2016, and **0.25%** since; along with policies of quantitative easing;
- a fall in rates of **employment** to **70%** by 2010 and a corresponding increase in **unemployment** to **8.5%**, recovering to pre-crisis levels by 2014/2015 with employment since exceeding those levels at **74%** in 2015 but accompanied by a rise in part-time working;
- much lower levels of **earnings growth** with median full-time earnings falling in real terms between 2009 and 2014, **rising** in real terms for the **first time** since the crisis in 2015.

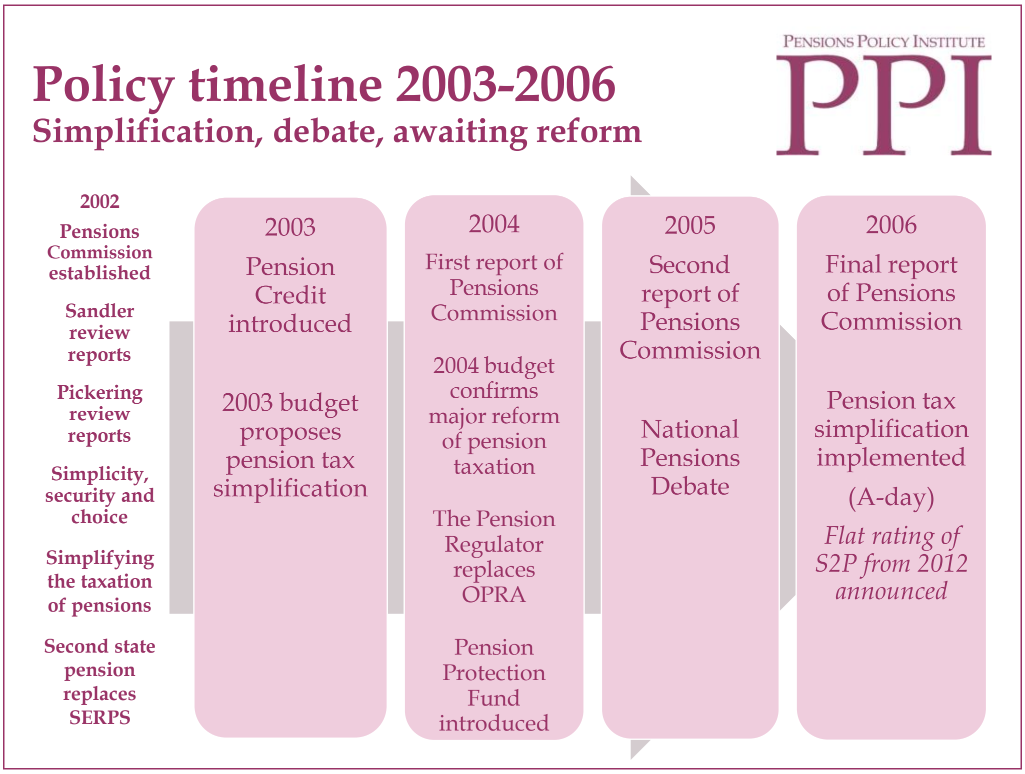
There have been many pension policy changes since 2003. However, this report focuses on the reforms that have had the greatest impact on individuals:
- The gradual implementation of many of the recommendations of the Pensions Commission in relation to state and private pensions;
- Public sector pension reforms that were partly informed by the Pension Commission's recommendations, including increases to schemes' Normal Pension Ages, mechanisms to share costs more equitably between members and employers and cost capping arrangements;
- A growing focus on governance, transparency and charges;
- Reforms to the pension tax system;
- Transformation of the choices available to Defined Contribution (DC) pension savers at age 55 and beyond;
- An emphasis on longer working lives with changes to the State Pension age (SPa), the removal of the Default Retirement Age and the Department for Work and Pensions' (DWP) fuller working lives initiative.

Policy landscape 2003-2009: simplification, sustainability and saving

Many of the post-2003 reforms arose from the recommendations of the Pensions Commission. Other reforms, such as the implementation of Annual and Lifetime Allowances and the introduction of the Pension Protection Fund were introduced prior to 2006 to address perceived economic deficiencies or inequalities.

Charts 1 and 2 summarise the policy reforms between 2003 and 2009, illustrating how the Pension Commission's findings fed into much of the subsequent policy reform.

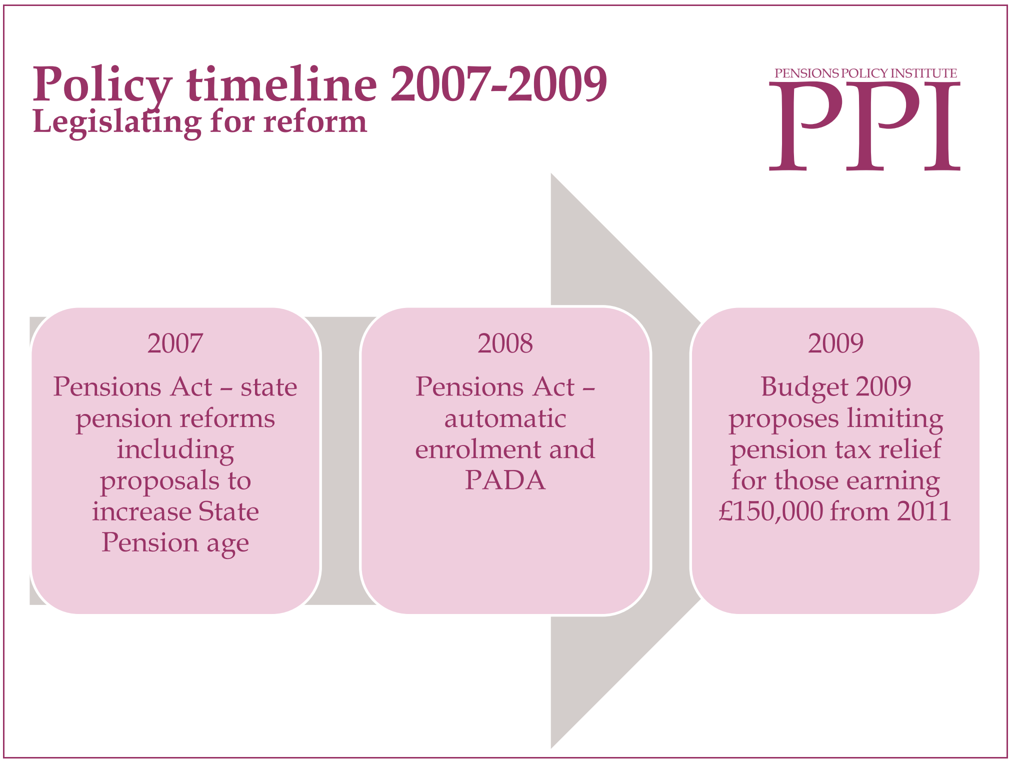
Chart 1[8]



After 2006, the major reform programme, based on the Pension Commission's findings[9] began to reshape the UK pensions landscape with changes to both state and private pensions (Chart 2).

[8] OPRA refers to Occupational Pensions Regulatory Authority
[9] Pensions Commission (2005)

Chart 2[10]



The Pensions Commission 2002-2006 concluded that the pension system was not fit for purpose and recommended new policies to address this

In 2002, the Labour Government established an independent commission to review the UK private pension system and long-term savings. The commission reported its findings and recommendations between 2004 and 2006. The commission concluded, based on comprehensive analysis of available data, that:[11]

> *"the current voluntary private funded system, combined with the current state system, is not fit for purpose looking forward."*

The commission recommended an integrated set of policies to create a new pension settlement (Box 2).

[10] PADA refers to Personal Accounts Delivery Authority

[11] Pensions Commission (2005)

Box 2: Pensions Commission's recommendations[12]

State system

- State system reform to deliver a more generous, more universal, less means-tested and simpler State Pension (including an increase in the SPa);

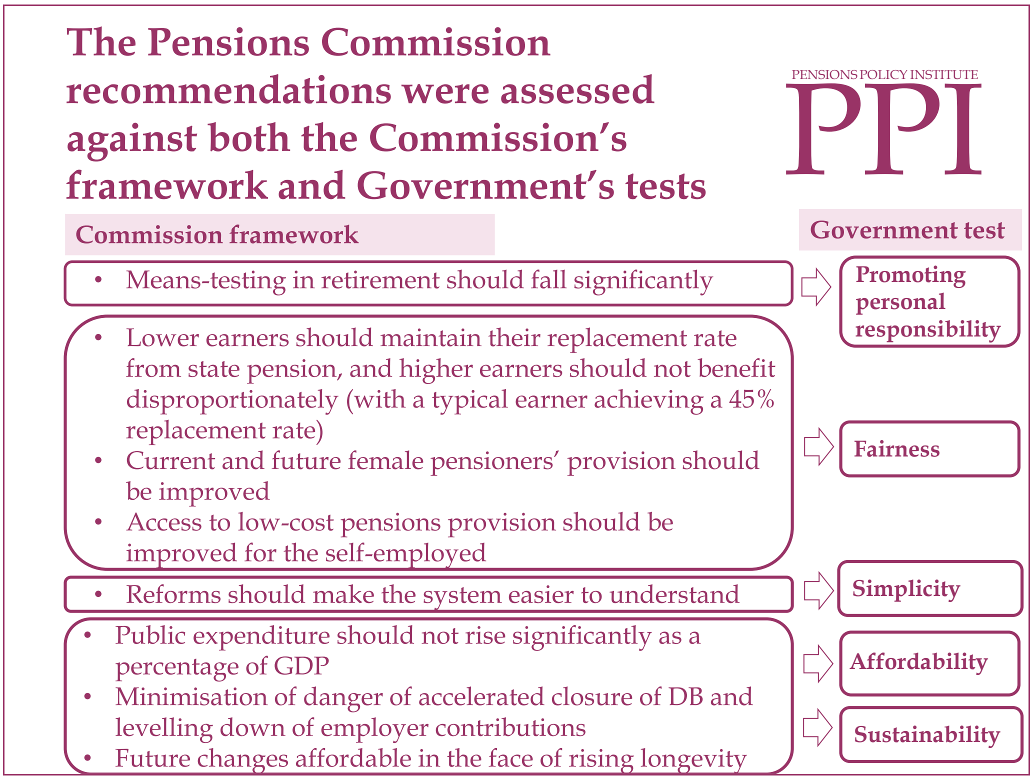
Private system

- Strong encouragement to individuals to save in pensions through the application of automatic enrolment;
- A modest minimum level of matching employer contributions to ensure that savings are clearly beneficial for all savers;
- Where there is no good employer-sponsored pension provision, a role for the state as an organiser of pension savings and bulk buyer of fund management. This is designed to ensure low costs and, as a result, higher pensions and better incentives to save, e.g. the creation of a National Employment Savings Trust (NEST).

The Commission set out a framework against which pension reforms should be assessed and the Government's response to the recommendations assessed the reforms against five tests (Chart 3), broadly accepting them.

[12] Pensions Commission (2005)

Chart 3



The Commission's report also pointed out the past inconsistencies in British pensions policy and called for future reforms to:

- Secure as much public and cross-party support as possible;
- Promote an understanding of what pension the state, the individual and their employers respectively need to provide;
- Develop confidence that incentives to save are beneficial and will remain relatively stable over time;
- Be informed by independent analysis of key trends in demography and pension provision; and
- Be regularly reviewed by a permanent Pensions Advisory Commission.

The Government implemented the Commission's recommendations

The Government broadly accepted the central recommendations of the Pensions Commission and put in place two pieces of pension legislation to effect the changes. Some changes to state pensions were already underway, including equalisation of men and women's pensions, planned changes to uprating and articulation of plans to move towards a flat-rate state second pension. However, the Pensions Act 2007 introduced the following:

- Gradual increases to the SPa for both women and men from age 65 to age 68 between 2024 and 2046;
- The ability to replace price inflation with earnings inflation as the link for increase to the basic State Pension;

A reduction in the:

- Number of qualifying years required for a full basic State Pension from 44 years for men and 39 years for women to 30 years for both from 2010;
- Changes to the ways in which individuals could build up entitlement to the basic State Pension;
- An acceleration in the move towards a flat-rate S2P.

Changes to private pension provision, namely the introduction of automatic enrolment were effected largely through the Pensions Act 2008

These included:

- Automatic enrolment of employees[13] (earning above a threshold) into a qualifying scheme selected by the employer[14] (and for the right of employees to opt out);
- Minimum levels of contributions by employers and total minimum contributions[15] (where the employee did not opt out).

Tax simplification (A-day)

Several contemporaneous tax changes were being planned by the Government as the Pensions Commission work progressed including:

- A single tax regime for all types of pension;
- The introduction of a Lifetime Allowance for pension savings, originally set at £1.5 million for the tax year 2006/2007, and above which additional tax charges would be levied (except for those with protection in place);
- The introduction of an Annual Allowance for tax relief on contributions (or deemed contributions for those in DB schemes), originally set at the higher of earnings or £215,000 (if earnings are higher than this amount) or £3,600 for someone with no earnings, above which an additional tax charge would be levied (unless unused allowances for the previous three years are carried forward);
- The standardisation of the tax-free lump sum at 25% of fund size;
- An increase in the minimum age at which benefits from a pension can usually be taken from 50 to 55;
- The introduction of an alternatively secured pension at age 75 for those who did not want to annuitise for religious reasons.

Between the years 2006 and 2010, the Lifetime Allowance rose to £1.8 million, while the Annual Allowance rose to £255,000.

The above does not cover exhaustively all changes that took place between 2003 and 2009.

[13] Employees aged 22 or over, below State Pension age and not already in a qualifying scheme
[14] Beginning with the largest employers and ending with the smallest or newest employees, this requirement is being phased in between 2012 and 2017
[15] Originally 3% of qualifying earnings by employers and 8% in total but subsequently changed to lower levels with the original levels being phased in by 2019

Summary 2003-2009

The reforms put in place between 2003 and 2009 were, for most of the period, delivered against a backdrop of strong economic growth and were designed to meet two core objectives:

- **encourage more savings** by individuals and employers into both pensions and other vehicles and, in particular, stimulate saving among lower income groups;
- make the **state pension system sustainable** while improving the value of the basic State Pension for those in receipt.

Policy landscape 2010-2016: simplification, sustainability and choice

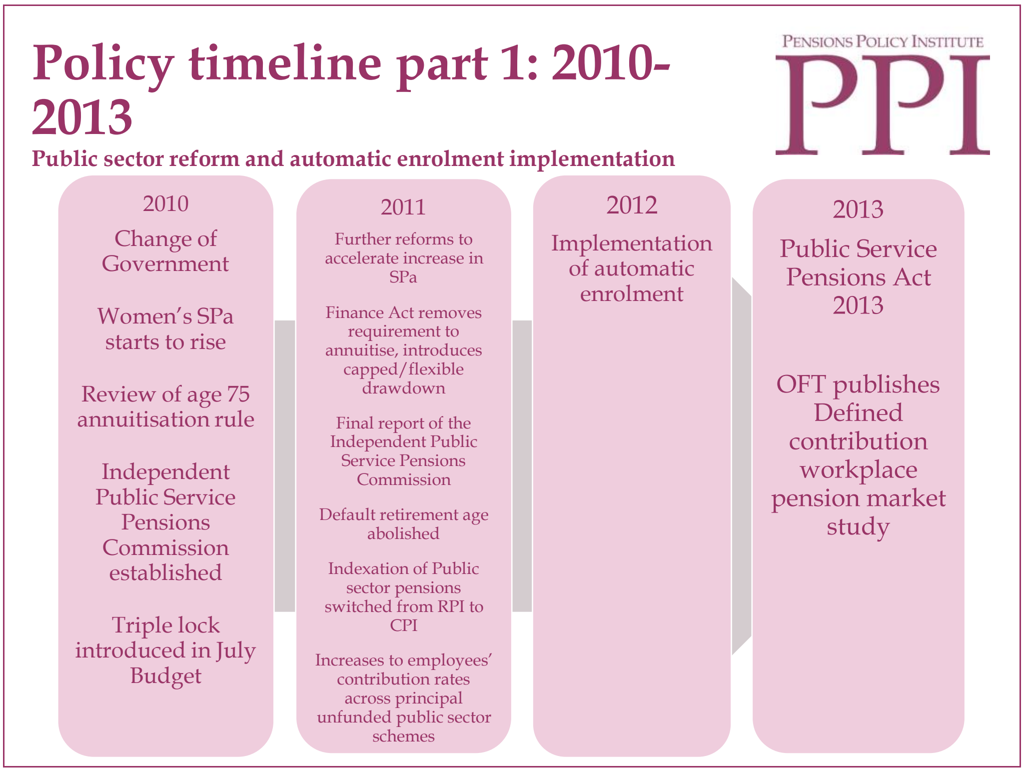
By 2010, the effects of the global financial crisis were being felt with shrinking economic growth, falling rates of employment, fluctuating inflation and a fall in real earnings levels. The year also brought a change in Government, with a coalition between the Conservatives and Liberal Democrats being formed. This Government was in turn replaced with a Conservative Government in 2015.

Between 2010 and 2016 some of the major reforms introduced or proposed by the Labour Government were implemented and extended.
These included (Chart 4):

- The implementation of automatic enrolment for the largest employers in 2012 and subsequent roll-out to smaller employers, although modifications were made to the roll-out;[16]
- Application of a triple lock to the basic State Pension, increasing it by either the Consumer Prices Index (CPI), earnings, or 2.5%, whichever is highest, over the course of both Parliaments;
- More fundamental reforms of public sector pensions on top of those implemented from 2005 to 2008.

[16] These included extending the start of the timetable for the smallest employers by a year to 2015

Chart 4[17]

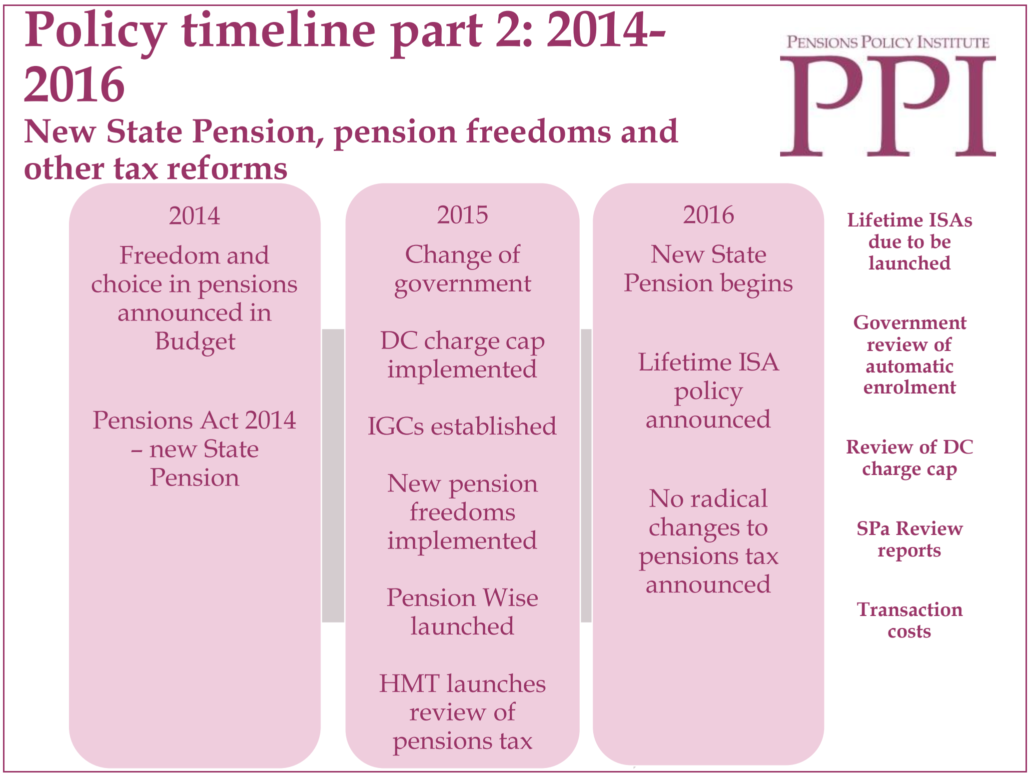


However, there were also changes to the policies of the previous Government, including (Chart 5):

- Limits on the tax relief available to pension savers;
- Acceleration of SPa increases;
- More fundamental reforms of public sector pensions;
- Removal of limits to how individuals can access their Defined Contribution (DC) pension funds after the age of 55.

[17] RPI refers to Retail Prices Index, CPI refers to Consumer Prices Index

Chart 5[18]



There were modest changes to the automatic enrolment programme

Modifications to the roll-out of automatic enrolment were announced in the Autumn Statement 2015. The increase of minimum required contribution from 2% to 5% due in October 2017 was rescheduled for April 2018 and the increase from 5% to 8% planned for October 2018 was postponed until April 2019 to align with the beginning of the tax year.

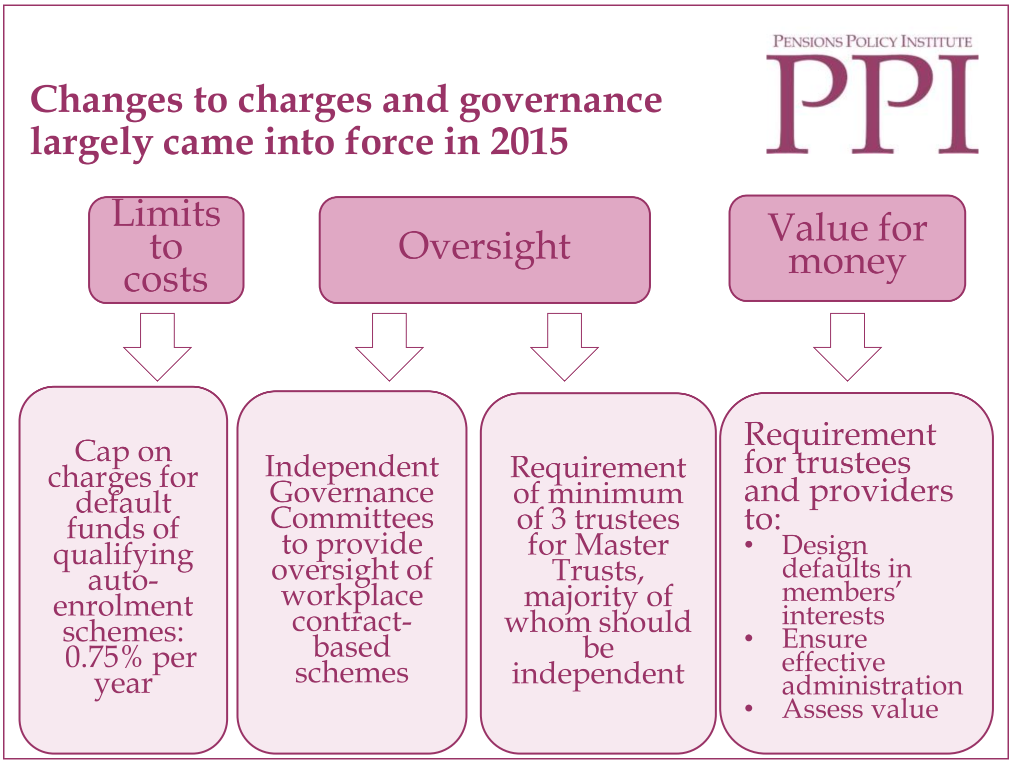
Further to the introduction of automatic enrolment, there was focus on the value and governance of pension schemes

The Office of Fair Trading (OFT) published findings[19] concluding that competition alone could not be relied upon to drive value for money for all savers in the DC workplace pension market. As a result, the Coalition Government focused on ensuring that quality standards were applied to DC pensions. In particular, the Government sought to ensure that individuals automatically enrolled gained access to schemes with low charges and good governance and that the industry moved towards greater transparency on other costs associated with running a pension scheme.

[18] IGCs refers to Independent Governance Committees
[19] Office of Fair Trading (2013)

After consultation, the Government published a command paper in 2015.[20] The main changes proposed related to charges and governance, were enacted through the Occupational Pension Schemes (Charges and Governance) Regulations 2015 and largely came into force in that year (Chart 6):

Chart 6



Additional proposals for tightening up on the disclosure of transaction costs remain the subject of a joint review by the Department for Work and Pensions (DWP) and Financial Conduct Authority (FCA).

Triple lock and a new State Pension

The new State Pension was introduced in 2016. In addition, one of the first acts of the Coalition Government was to introduce the triple lock to inflate the basic State Pension (bSP) from 2011 and the new State Pension (nSP) once it was introduced. Under the triple lock, the bSP or nSP is increased each April by the higher of the growth in average earnings, the Consumer Price Index (CPI), or 2.5%. The triple lock is currently guaranteed until the end of this Government.[21]

[20] DWP (2015a)
[21] Queen's speech (2015)

The key elements of the nSP are:
- A new, single-tier, State Pension of £155.65 per week (for the full new State Pension) was put in place for those retiring from April 2016 that replaced the basic State Pension (bSP) and the State Second Pension (S2P).
- To qualify for the full nSP an individual needs 35 years of National Insurance Contributions (NICs), with a minimum of ten years to qualify for any nSP.
- Individuals reaching SPa from April 2016 receive the higher of the nSP or their entitlement built up under the old system. Those with a starting amount in April 2016 are able to add to this until they reach the full amount of nSP or they reach SPa, whichever happens sooner.

Changes to public sector pensions were introduced over the course of the Labour and the coalition governments

A package of reforms of public sector pensions began during the previous Labour Government, initially with reform of the uniformed services but also applying to the NHS, Civil Service and Teachers' schemes.

Subsequently, the Coalition Government appointed Lord Hutton of Furness to chair the Independent Public Service Pensions Commission. The Commission's final report was published in March 2011. Lord Hutton presented the case for reform and stated the need for:[22]

> *"reforms that can balance the legitimate concerns of taxpayers about the present and future cost of pension commitments in the public sector as well as the wider need to ensure decent levels of retirement income for millions of people who have devoted their working lives in the service of the public"*

The Government accepted the broad thrust of the commission's recommendations and incorporated the changes in the Public Service Pensions Act 2013. The Act, while protecting pension rights accrued to date, facilitated the establishment of new pension schemes for public sector workers.[23] These changes applied to most public sector pension schemes.

Changes up to 2008 and subsequent to the Hutton report included:
- Changes to accrual rates from 1/80th to 1/60th
- Basing future rights on career average rather than final salary
- Increases to Normal Pension Ages

[22] Independent Public Service Pensions Commission (2011)

[23] The core design also included a clear rationale for increasing employee contributions, a principle that final salary rights already earned should be linked to final salary on leaving service, that future pension provision should be through a career average scheme, that there should be fairer sharing of the benefits of living longer though linking Normal Retirement Ages to SPa and there should be a fixed limit to employer pension contributions.

- Higher retirement ages for new entrants
- Increases in flexible arrangements and provision for survivors' pensions
- Increases in employees' contributions
- Caps on employer contributions, and cost-sharing arrangments
- Changing uprating from the Retail Prices Index to the Consumer Prices Index in 2011.

Steps were taken in 2010 to offer DC pension savers more choice

Over the course of the Coalition Government, the effective requirement to annuitise DC pension savings at retirement or at least by age 75 were initially relaxed (in 2011) and then removed completely (in 2015).

The move towards offering DC pension savers complete choice and flexibility over how they use their pension savings from age 55 began in 2010. The review confirmed that the purpose of tax-relieved pension saving is to provide an income in retirement, but made the following changes:[24]

- the abolition of the effective requirement to annuitise by age 75;
- the introduction of two new forms of drawdown; flexible income drawdown for those with a secure annual income in excess of £20,000[25] and capped drawdown for those without an adequate secure income.

Full-scale DC pension freedoms were proposed in 2014 and implemented in 2015

The 2014 budget included proposals for major reform of the options available to individuals with DC pensions at age 55 and beyond[26], facilitated by changes to the pension tax regime. Pension savers in DC pensions would be given the choice of:

- Full or partial withdrawals (Uncrystallised funds pension lump sum – UFPLS) with 25% of each withdrawal being tax free and the remainder taxed at their marginal rate of tax;
- New flexible access drawdown (FAD) where 25% can be taken tax-free at the start and the remaining fund is withdrawn on a regular or ad-hoc basis and withdrawals are subject to tax at the individual's marginal rate;
- Purchasing an annuity (with the option of taking 25% tax free before the purchase);
- Any combination of the above;

[24] Prior to 2011, after age 75, people with principled objections to annuitisation were permitted to enter an alternately accrued secured pension (ASP) arrangement. ASP was similar to USP but had a lower maximum drawdown limit (90% of the amount of an equivalent annuity) and a minimum drawdown limit of 55%, to ensure that pension savings were used to secure a retirement income. ASPs were never intended to be widely used as an alternative to annuitisation. Consequently, the pension tax rules effectively required most DC pension savers to purchase an annuity by age 75.

[25] The minimum income requirement (MIR) for flexible income drawdown was set at a figure of £20,000 per annum, which must provide a secure income for life, and includes state pensions, lifetime annuity or dependant's lifetime annuity, scheme pension or dependant's scheme pension, and overseas pension payment equivalent to a lifetime annuity or scheme pension.

[26] HM Treasury (2014)

- The treatment of pensions on death changed so that any beneficiary could receive a lump sum or income at the marginal rate rather than at 55% on death after age 75;
- The right to transfer from DB to DC was extended, but a new requirement to take advice on 'safeguarded benefits' was introduced alongside this policy.

The new freedoms are, in effect, not available to members of unfunded public service DB pensions as they cannot transfer their entitlement to other types of schemes.

In addition, the Government committed to a 'guidance guarantee' whereby those with DC funds would be provided with access to a free, at the point of use, independent guidance service funded by the industry. Further changes followed:

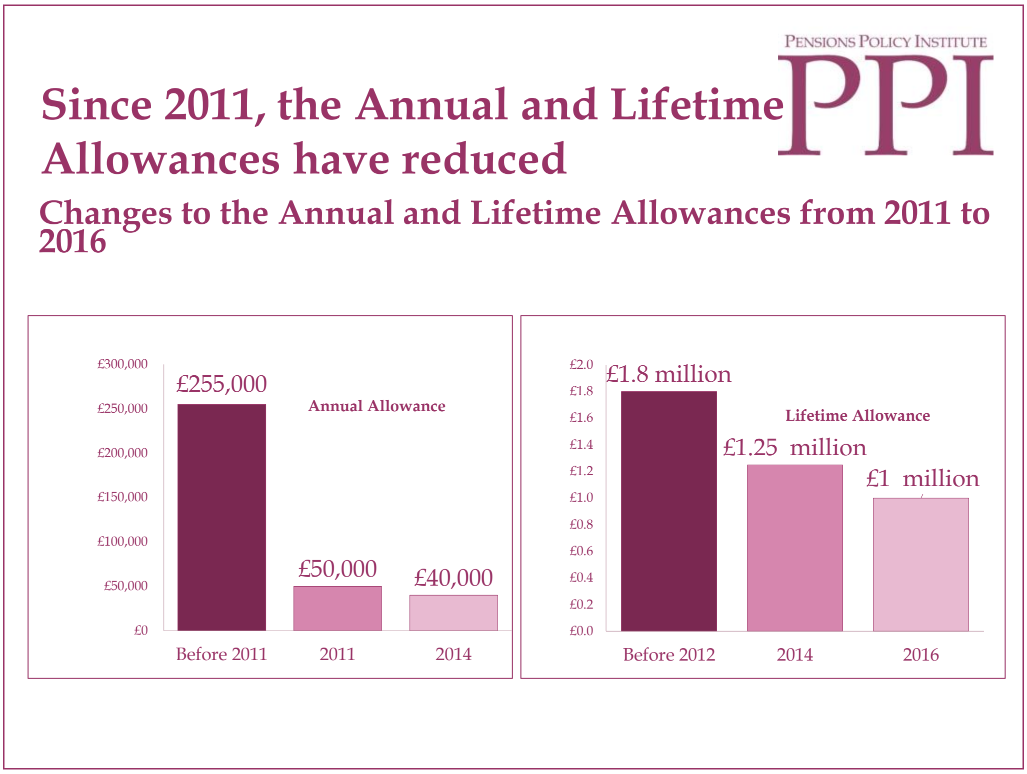
- The right to transfer private sector DB pensions into DC funds was extended, thereby giving those with DB pensions the ability to access the new pension freedoms,
- The Government consulted on allowing those with existing annuities the right to give up their regular income in return for a lump sum, thereby creating a secondary annuity market. However, these plans were halted in 2016,
- The Financial Conduct Authority (FCA) and The Pensions Regulator (TPR) put into place risk warnings for those seeking to access the new DC pension freedoms as a further line of defence against poorly informed decisions and scams. Publication by the Pensions Liberation Industry Group of a code of combatting pension schemes to help trustees deal with suspicious transfers.

Other tax reforms – limits to allowances

Since 2010, concern in both the Coalition and Conservative governments has grown about both the cost and distribution of pension tax relief. As a result, both the Lifetime and Annual Allowances[27] have been reduced on a number of occasions (Chart 7).

[27] These refer respectively to the amount that individuals can save into a pension without incurring a tax liability per year and over their lifetime

Chart 7



As well as the reduction to the Lifetime Allowance from 2016 the Government introduced a taper to the Annual Allowance for those with adjusted incomes, (including their own and employer's pension contributions), of over £150,000 from April 2016.

In 2015, the Government announced a major review exploring alternatives to the fundamental structure of pensions' taxation in the UK.[28] The consultation considered a number of radical reforms to the EET[29] system of pension taxation but the decision was made in the 2016 budget not to make any radical changes at that point in time but rather to introduce a new long-term savings vehicle, which allowed early access for house purchase, the Lifetime ISA.[30]

Fuller working lives and the State Pension age (SPa)

Enabling people to work longer is seen as an essential element of state and private pension sustainability. Therefore, the Government has introduced several policies aimed at increasing longer working. In January 2011, the Government announced that they would abolish the Default Retirement Age (DRA), a regime that had allowed employers to set an age at which they expected employees to retire and would issue a retirement notice.

[28] HM Treasury (2015)
[29] Exempt, exempt, taxed (EET) – a system where contributions are tax-free, grow free of tax but pensions in payment are taxed at the individual's then marginal rate of tax
[30] See PPI briefing note 82: Lifetime ISAs: the international evidence

The Pensions Act 2011 accelerated the equalisation of SPa by two years to reach age 65 by April 2018 (instead of April 2020) and the dates at which the State Pension age will increase to 66 and 67 were also brought forward to 2020 and 2028 respectively. In 2015, the Government appointed John Cridland to lead a review of the SPa 'in the immediate future and over the longer term' and the fairness and affordability of the current universal state SPa[31]. The review's remit does not include any changes planned prior to 2028. The review is due to report in early 2017. This will inform the Government review of SPa that will report to Parliament in May 2017. The interim report, that outlined some of the specific considerations for the review, was published in October 2016.

Alongside considerations around affordability and fairness of the State Pension, the Cridland review[32] is tasked with reviewing the universality of the State Pension in the light of the DWP's Fuller Working Lives initiative. Under this framework for action, launched in 2014[33], the Government is exploring ways in which individuals and businesses can support older workers, particularly those at risk of leaving the workforce before SPa due to health issues or caring responsibilities.

Summary of major policy changes 2010-2016

This period of policy reforms took place at a time of uncertain economic outlook. The reforms can be summarised as falling into two distinct groupings:

- Those that continued or enhanced the policies supported or initiated by the previous government such as the roll-out of automatic enrolment and the return to an earnings link for the State Pension. These policies were designed to enhance current pensioner incomes and to secure future pensioner incomes.
- Those policies that reversed or conflicted with policies or principles laid down by the previous government such as the reduction of tax allowances and the move away from viewing a pension as a vehicle for securing an income throughout retirement through the introduction of freedom and choice.

Forthcoming changes are planned for both state and private pensions

These include:

- **Automatic enrolment review in 2017:** The scope of the review is yet to be determined, but may consider the trigger point for automatic enrolment, contribution levels and the extent to which the costs and benefits to individuals and employers are appropriately balanced.[34]
- **Charge cap review in 2017:** This will consider whether the charge cap should be lowered from 0.75% and how transaction costs should be evaluated.[35]

[31] DWP (2015c)
[32] DWP (2015c)
[33] DWP (2014)
[34] DWP (2016a)
[35] https://www.fca.org.uk/news/press-releases/fca-publishes-proposals-transactions-cost-disclosure

- **Potential changes to reporting of transaction costs:** The FCA is currently consulting on new rules around transaction cost disclosure that would place a duty on asset managers to disclose transaction costs in aggregate to pension schemes that invest in their funds. In addition, this proposes that asset managers provide a breakdown of transaction costs into identifiable costs on request.[36]
- **Review of SPa in 2017:** This will consider changes in life expectancy along with wider changes in society to work towards ensuring that the State Pension is affordable, fair, and enables individuals to have fuller working lives.[37]
- **Pensions dashboard:** This is planned to enable individuals to see all of their pension pots in one place, with a prototype being planned for 2017.
- **Master Trust regulation:** Pensions Bill to give TPR new powers to regulate Master Trust schemes. This Bill also commits to cap early exit fees charge by trust-based schemes.
- **Plans for introduction of the Lifetime Individual Savings Account (LISA):** A new tax-advantaged savings account, available to individuals aged under 40, which can be used to save for a house purchase, for retirement or both.
- **Plans for a green paper on DB pensions:** This could consider whether consolidation could be achieved more widely to allow economics of scale and more investment in infrastructure.

[36] https://www.fca.org.uk/news/press-releases/fca-publishes-proposals-transactions-cost-disclosure
[37] https://www.ageing-better.org.uk/wp-content/uploads/2016/08/02-08-2016-Briefing-on-the-Independent-Review-of-State-Pension-Age.pdf

Chapter two: landscape changes 2003-2016

This chapter describes the changes in the pension landscape that took place between 2003 to 2016, partly as a result of reforms and partly as a result of other external factors, such as the economy, regulation and working patterns, and earlier reforms.

This chapter summarises these landscape changes in order to provide the context within which policy changes are operating.
It examines in particular how things have changed for:

- Current and new pensioners,
- Those still accumulating their pension benefits
- Employers
- Government finances

This section considers those individuals aged over SPa in the relevant time frame. Pensioner incomes grew prior to 2003, and between 2003 and 2016, but variation remains between different groups. Older people are more likely to be employed than in 2003 although many work part-time. Overall, participation in pensions has increased, although some groups continue to have lower participation because they are not eligible for automatic enrolment.

The remainder of this chapter explores the following:

- Income
- Employment
- Accessing income in retirement
- Pension participation
- Charges, costs and governance

In 2003 pensioners' income had risen in recent years but so had inequalities between pensioners

- Pensioners' incomes had risen in 2003, but so had the gap between the richest and the poorest. Private pension income accounted for much of the difference between rich and poor pensioners in 2003;
- A quarter of pensioners, typically older pensioners, women, people from ethnic minorities and those who had been self-employed, were in relative poverty.

Between 2003 and 2016 there were improvements in pensioner incomes and a halving of the proportion of pensioners in relative poverty

Between 2003 and 2016:

- Average pensioner unit incomes after housing costs rose by **33%** in real terms (Chart 8) because of increases in incomes from private pensions and employment;[38][39]
- Average gross incomes before housing costs rose in the period from **£415** per week (in 2014-15 prices terms) in 2003-04 to **£515** per week in 2014-15;[40]
- There was an increase in the proportion of those above State Pension age working, with the proportion of pension units with earnings increasing from **7%** to **13%** for all pensioner units[41] between 2002-03 and 2014-15;
- There was an increase in the average age of labour market exit. Since 2010 the gap between men and women's average age for ceasing work has narrowed from **1.9 years** to **1.6 years.**

These increases led to more than half of pensioner couples **(57%)** being in the top half of the income distribution of the whole population when measured by net income after housing costs. Single pensioners were less likely to be in the top half but the proportion rose from **34%** to **42%** over the period;[42]

- There was a **halving** of the proportion of pensioners in relative poverty (although this is in part a consequence of lower earnings growth among the working age population);
- Despite this, **1.6 million** pensioners (**14%** of pensioners) were estimated to be living in relative poverty[43] and **900,000 (8%)** suffering material deprivation in 2014/15.[44]

There are some additional factors behind these figures that may account for these developments, or influence interpretation of these:

[38] PPI analysis of Pensioner Income Series (June 2016)
[39] Pensioner units defined as single pensioners over SPa or pensioner couples where one or both are over SPa. Average gross pensioner unit incomes are unequivalised and could vary over time according to the mix of single and couple units, the SPa and a number of other factors
[40] DWP (2015b)
[41] DWP (2015a)
[42] PPI analysis of Pensioner Income Series (June 2016)
[43] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/532416/households-below-average-income-1994-1995-2014-2015.pdf
[44] Relative poverty is defined as living in a household with income below 60% of the median (after housing costs). A pensioner in considered to be in material deprivation if they live in a family that has a final score of 20 or more out of 100 when asked whether they have access to a list of 15 goods and services.

- These figures are based on incomes after housing costs and, therefore, the low level of housing costs of pensioners relative to working age people may contribute to the shift of pensioners to a higher position in the income distribution,
- There may be a cohort effect whereby older poorer pensioners are replaced by younger wealthier pensioners,
- A relatively high proportion of pensioner income is from disability benefits. As these are intended to compensate individuals for the extra costs of disability it could be argued that these amounts should not be included in pensioner incomes (or in working age incomes) as they do not represent disposable income.

Pensioners across the income ranges have experienced real increases in median incomes after housing costs but there is some variation between different groups

- All of the pensioner income quintiles have experienced real increases in median incomes (after housing costs) when measured between the years 2002-2005 and 2012-2015.[45]
- Those who have seen the largest increases are pensioner couples in the middle three income quintiles while the lowest increases have been experienced by single pensioners in the lowest two income quintiles.[46]
- Older pensioner units (those with a head of household aged 75 or over) experienced a slightly larger increase (**35%**) than younger pensioner units (**32%**) and the recently retired (**29%**).[47]

Income from all sources increased, with private pension income and earnings increasing the most

The rise in real gross incomes has been driven most by a rise in the average income from private pensions and earnings, which rose by **57%** and **46%** respectively over the period.

Real increases in average income from benefits also contributed to the overall increase; rising by **16%** in the period.

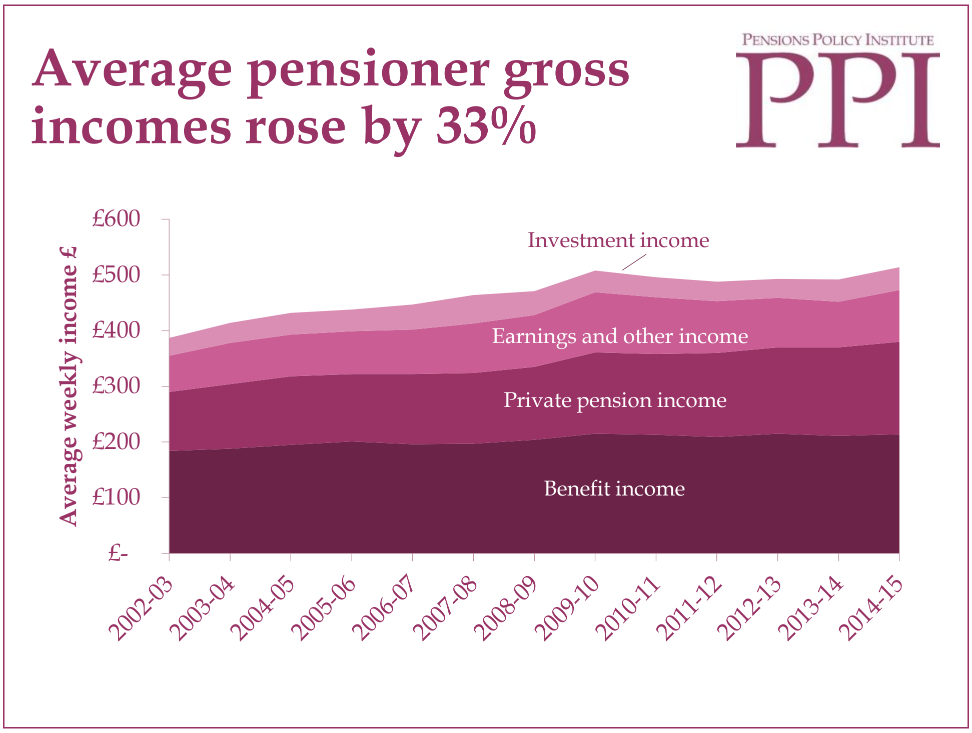
In spite of low interest rates for much of the period and, at times, poor returns from investments, average income from investments held by pensioners rose in real terms by **28%**, suggesting a significant rise in the amount saved by pensioners.

Private pensions now represent a greater share of average gross income for pensioner units than in 2003, rising from **27%** to **32%** of the average. By contrast benefit income, while still the biggest contributor to average incomes, fell from

[45] PPI analysis of Pensioner Income Series (June 2016)
[46] PPI analysis of Pensioner Income Series (June 2016)
[47] PPI analysis of Pensioner Income Series (June 2016)

48% of gross average income to **42%** over the period. Earnings, while rising steadily until 2010-11, fell back to **17%** in 2014-15 (Chart 8).[48]

Chart 8[49]

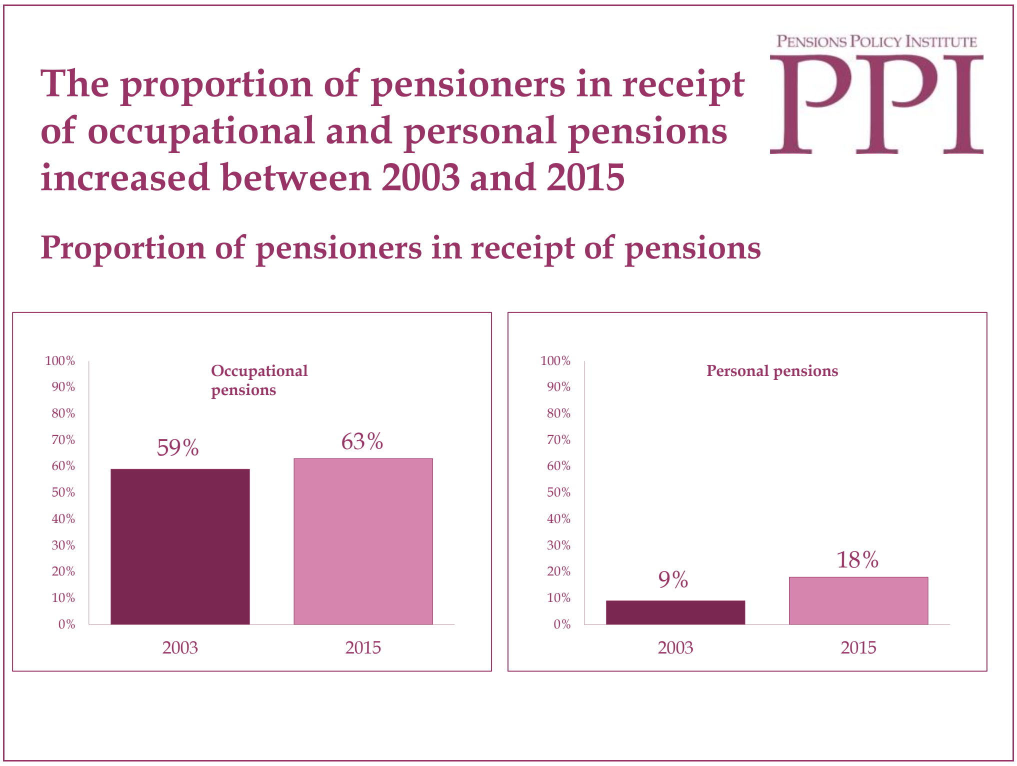


The proportion of pensioners in receipt of occupational and personal pensions increased between 2003 and 2015

72% of pensioner units are now in receipt of an income from private pensions of an average of **£230** per week, compared to **64%** and **£167** per week in 2002-03. This increase applies to both occupational and personal pensions (Chart 9).[50]

[48] PPI analysis of Pensioner Income Series (June 2016)
[49] PPI analysis of Pensioner Income Series (June 2016)
[50] DWP (2015b)

Chart 9[51]



Retirement and working patterns

During the period under review, several factors contributed to higher levels of economic activity among those approaching and beyond SPa (Box 3).

Box 3: Factors contributing to higher levels of economic activity

- Changes to women's SPa which began to have an effect in 2010 and will reach full equalisation in 2018 (before SPa for both genders increase to age 67 by 2020);
- Removal of the Default Retirement Age in 2011;
- Changes to Normal Retirement Ages in some pension schemes;

The following factors may also have had an impact

- Impact of the global financial crisis on the economy in general, interest rates and investment performance;
- Growing importance of older workers to employers due to demographic change; and
- Changing social attitudes to work among older people.

[51] DWP (2015b)

Employment levels have risen among older groups

Over the period 2002-03 to 2014-15 the proportion of pensioner units with income from earnings increased as follows:

- From **7%** to **13%** for all pensioner units,[52]
- From **3%** to **6%** among single pensioners'[53]
- From **13%** to **21%** among pensioner couples.[54]

Among pensioner couples, the proportion with income from earnings is highest among those with one partner above SPa and the other partner below **(66%)** and lowest where both partners are above SPa.

Since 2003, employment rates have risen in all age groups and most of all in the oldest age groups, although employment rates continue to reduce with age. These have increased as follows (Chart 10):

Men

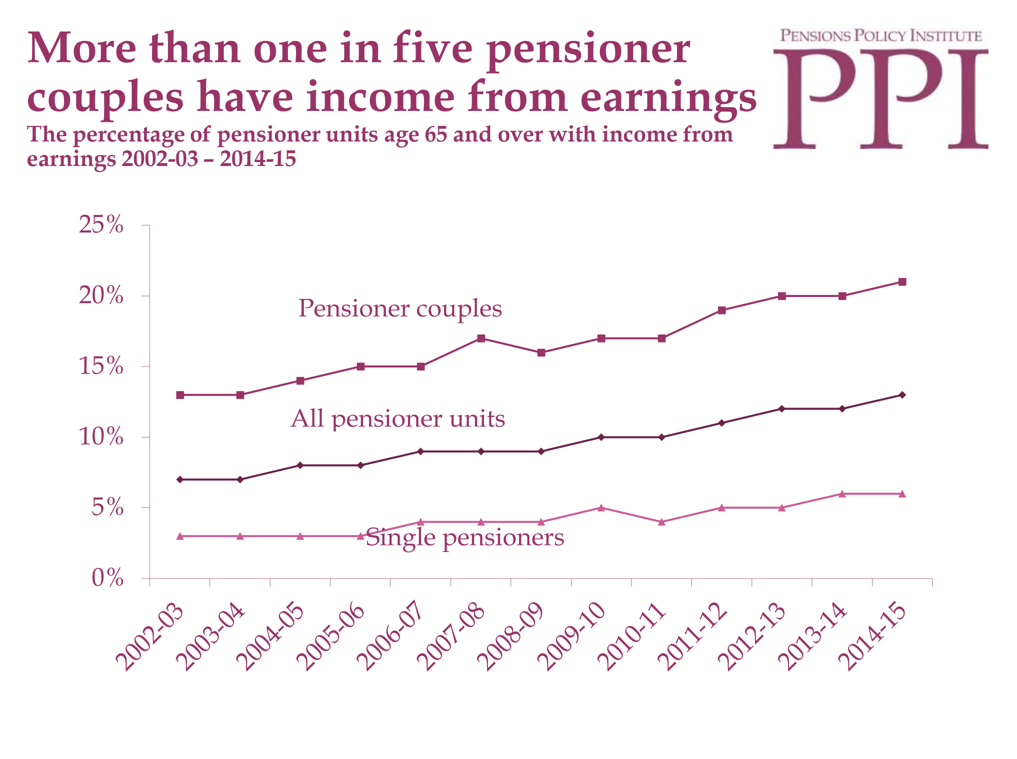
- Aged 50 or over, the employment rate has risen by just **3%** since 2003
- Aged 65-69, the rate has increased by **52%** to **26%** in 2015 and
- Aged 70 and over this has almost doubled to **13%**.

Women

- Aged 50 and over, the employment rate has risen by nearly **18%** since 2003
- Aged 65-69, the rate has increased by **71%** to **17%**
- Aged 70 and over this has increased by **155%** to **7%**.[55]

[52] DWP (2015a)
[53] DWP (2015a)
[54] DWP (2015a)
[55] PPI analysis of DWP Pensioner Income Series, June 2016, table 5.8

Chart 10[56]



Older individuals are more likely to be in part-time work than younger individuals

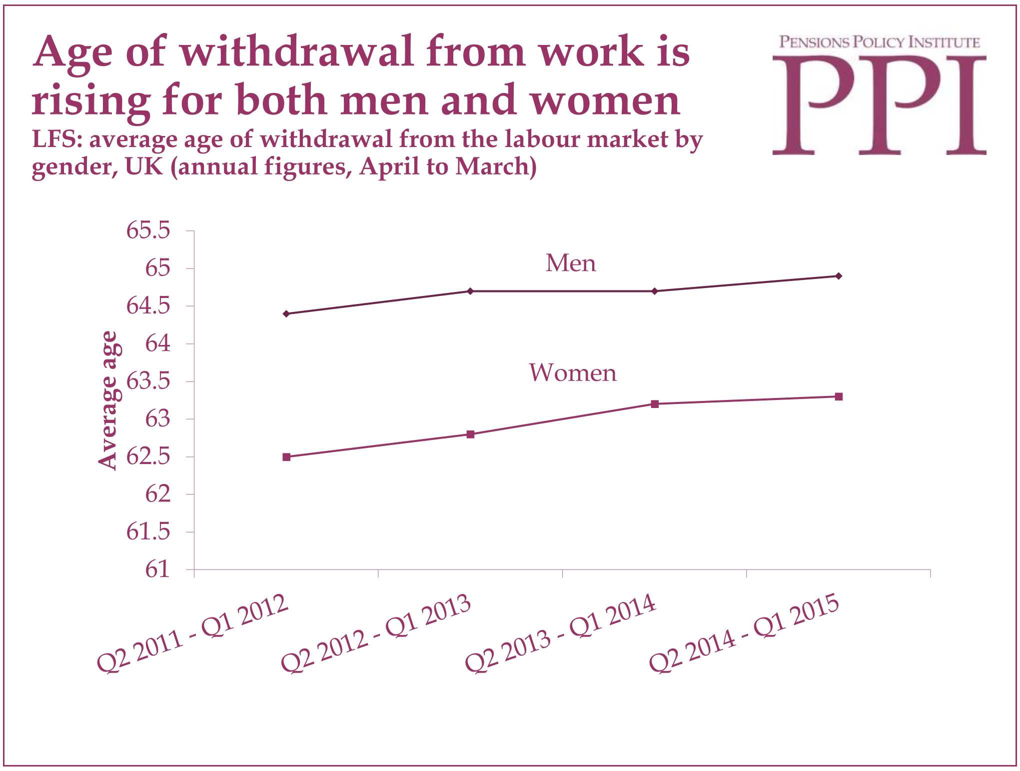
However, among those older individuals who are in employment there has also been a shift from part-time to full-time work; of those women aged 65 and over the proportion in part-time work has fallen from **89%** to **79%** between 2000 and 2015 (with the proportion in full-time work increasing from **11%** to **21%**).[57]

Since 2003, the average age for ceasing work has also risen for both women and men[58]

This is most noticeable for women since the gradual increase in women's SPa began in 2010. Since then the gap between men and women's average age for ceasing work has narrowed from **1.9 years** to **1.6 years** with the average age for women standing at **63.3** in 2015 (Chart 11). The effect is most marked among single women and among those renting their home.[59]

[56] PPI analysis of DWP Pensioner Income Series, June 2016, table 5.8
[57] ONS (2015)
[58] ONS (2006)
[59] IFS (2014)

Chart 11



Guidance and advice at retirement

An on-going issue for savers and those retiring during the years between the first landscape report and today has been the supply of advice.

The Retail Distribution Review (RDR) was launched by the Financial Services Authority in 2006. The resulting regulatory changes raised the minimum level of adviser qualifications, improved the transparency of charges and services, and removed commission payments to advisers and platforms from product providers. There were concerns about the impact of the RDR on the availability and cost of advice, particularly for those with small pension pots.

The issue became heightened once the decision on the new pension freedoms was announced in 2014, bringing with it an increased need for help and support for those approaching retirement.

In response to the gap in retirement guidance, the Government announced, in parallel to the pension freedoms, the establishment of a publicly-funded and dedicated resource in the form of Pension Wise. However, of those who have withdrawn some money from their DC pensions since April 2015, just over one in five have used Pension Wise.[60] The Government has since consulted on the

[60] Pensions and Lifetime Savings Association (2016c)

form of publicly-funded financial guidance and is currently reflecting on responses to the second consultation on the subject.[61]

Since the announcement of the pension freedoms and the joint HMT and FCA Financial Advice Market Review, the Government has announced two further initiatives to extend advice in the workplace:

- Plans to extend the tax-free allowance for employer funded pension advice from £150 to £500; and
- A consultation on the introduction of a £500 pension advice allowance whereby individuals can withdraw, without penalty, that amount from their DC pensions to fund advice.[62]

Both initiatives are expected to come into force in 2017 and are designed to extend access to advice for those approaching retirement.

Use of the pension freedoms

Since April 2015, those above age 55 with a DC pension have been able to access the new pension freedoms described in the previous chapter. Complete data on the extent to which individuals have taken advantage of the freedoms either at or before retirement are difficult to collate.

Although the data vary in their detailed conclusions, a number of common themes are present:

- Behaviour at or near retirement has become more fragmented as individuals no longer default to an annuity purchase;
- A significant number of those who took early advantage of the freedoms have chosen to cash in their entire pot (**52%** of those taking action between October and December 2015), although for some these funds may have represented only one part of their retirement income[63];
- The number of individuals keeping their funds invested and drawing down either a regular income or ad-hoc lump sums has increased significantly (**31%** of sales from October to December 2015);[64]
- Annuity sales have declined to around **20,000** per quarter (the sales of annuities peaked in 2009 at around **466,000**);[65]
- Shopping around is not the norm for either annuities or drawdown products. In addition, **less than half** sought formal advice before purchasing;[66]

[61] HM Treasury (2016a)
[62] HM Treasury (2016b)
[63] FCA (2016b)
[64] FCA (2016b) ibid
[65] PPI (2016c)
[66] FCA (2016a)

Supply of retirement income solutions

The introduction of the pension freedoms brought significant change for employers, pension schemes and providers.

Individual personal pension drawdown products were available to high value investors before the new pension freedoms. However, the vast majority of those reaching their normal retirement date with a DC fund elected to purchase an annuity after taking their tax-free lump sum.

While the system remains in flux, there have been significant developments since the announcement of the freedoms in 2014:

Availability of products

- There has been a reduction in the number of providers operating in the open market for annuities;[67]
- A number of new hybrid annuity and drawdown products have been launched;
- Most providers of individual drawdown products have reduced their minimum thresholds, thereby opening up the market for those with smaller funds;
- Most of the largest occupational schemes continue to offer only limited access to some pension freedoms, most commonly full cash withdrawal (full uncrystallised funds pension lump sum – UFPLS) leaving their members with the need to transfer to the retail market ;
- A small number of Master Trusts have developed the pension freedoms in an occupational pension scheme environment (in particular drawdown), some making transfers available from single employer occupational schemes that do not wish or are unable to offer the full range themselves;
- A consultation has been conducted to consider whether NEST should be allowed to develop decumulation solutions for its members;[68]

Retirement product costs

- Annuity rates have fallen, in part as a consequence of falling interest rates and bond yields;[69]

Consumer protections and quality

- There have been calls from some consumer bodies for a cap on drawdown charges with examples of charges in excess of **2%** pa cited;[70],[71]

[67] https://www.ftadviser.com/2016/06/21/pensions/annuities/prudential-pulls-out-of-open-annuity-market-72YnfWdQXGVnzH2ehdYyeL/article.html
[68] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/535369/nest-evolving-for-the-future-call-for-evidence.pdf
[69] http://www.sharingpensions.co.uk/annuity-rates-chart-latest.htm
[70] http://www.which.co.uk/news/2015/07/the-true-cost-of-pension-freedom-409249/
[71] https://www.fs-cp.org.uk/sites/default/files/cp_response_freedom_and_choice_in_pensions_final_20140611.pdf

- FCA has committed to cap pension exit charges at **1%** of funds;[72]

Defaults

- Most of the largest occupational schemes have reviewed their default fund in the light of the new freedoms, although one third still target an annuity and **15%** target cash;[73]

Individual outcomes

- The FCA has launched a review of retirement outcomes designed to explore the challenges facing consumers in the new world of pension freedoms, competition in the market and the trend away from taking regulated advice.[74]

Participation in pension saving has increased

The years since 2003 have seen an increase in the proportion of all employees as active members of a workplace pension, from just below **60%** to **64%** in 2015[75] (and almost certainly higher still in 2016).

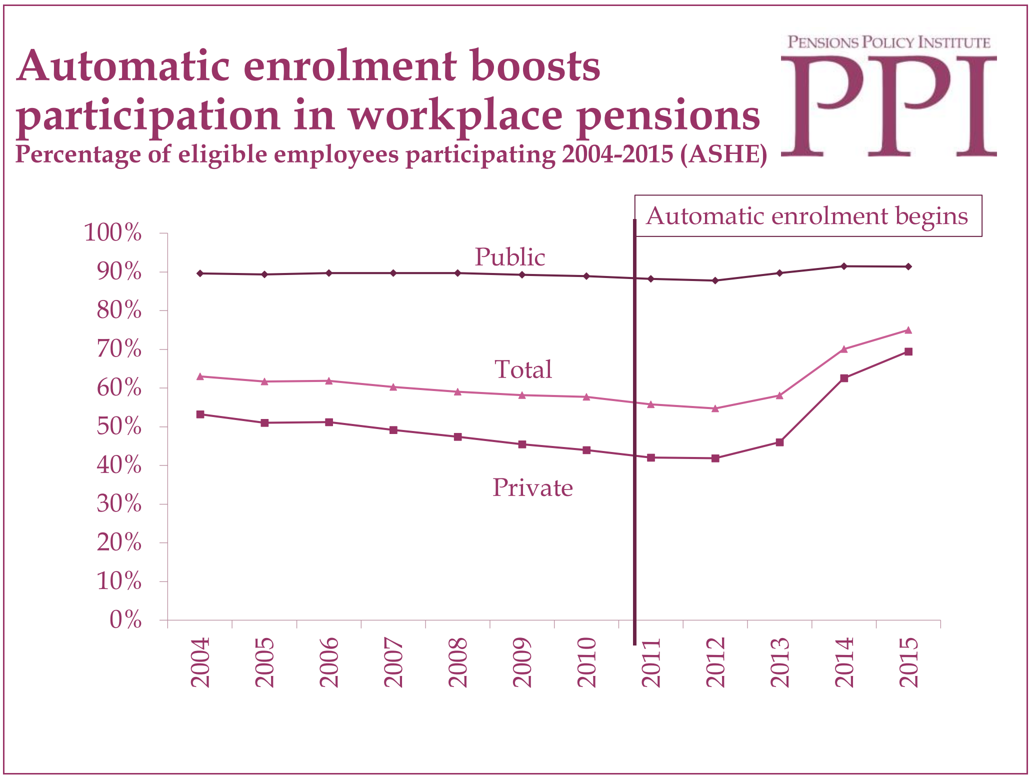
Moreover, since 2003, when more than two thirds of members participated in a DB scheme, the number of active DC members now exceeds the number of active DB members.

Before the introduction of automatic enrolment, the proportion of eligible private sector employees participating in pensions in 2004 stood at **53%** and fell to a low of **42%** in 2012.[76]

Since the start of automatic enrolment in October 2012, both the number of workers eligible for membership and the participation rate among the eligible has risen (Chart 13). The proportion of eligible workers participating in a scheme has since risen to **70%** in 2015 (an increase of **4.5 million** people over the 2012 number) and is likely to have risen further since more employers have implemented automatic enrolment.[77]

[72] https://www.fca.org.uk/news/press-releases/fca-proposes-cap-early-exit-charges
[73] The Pensions Regulator (2016b)
[74] Financial Conduct Authority (2016b)
[75] Office for National Statistics (2016)
[76] Eligible employees are those earning more than £10,000 (from April 2015) and aged between 22 and state pension age – check data include those already in pension schemes
[77] Office for National Statistics (2016)

Chart 12[78]

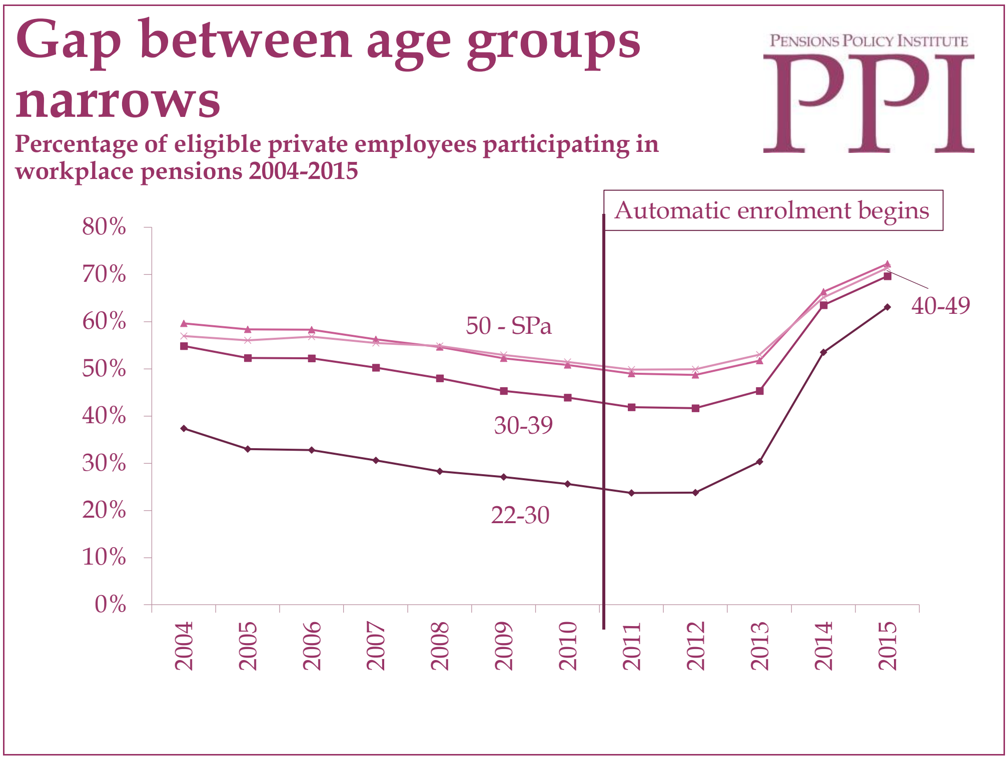


The participation rates in 2015 revealed that, for the first time, at **70%**, female employment rates in the private sector exceeded male rates (**70%** compared to **69%**). [79]

Moreover the gap in participation rates between younger and older employees in the private sector has narrowed substantially (Chart 13). In 2004, the participation rate of the youngest age group (22-29) lagged behind the peak participation age group (40-49) by **22%**. In 2015, the gap had narrowed to **9%**.

[78] ONS (2015)
[79] ONS (2015)

Chart 13[80]



Large number of ineligible workers remain

While automatic enrolment has increased the proportion of employees eligible for a workplace pension, there are two significant groups of workers who remain ineligible, although employees who are not eligible may opt in:

- 5.3 million employees[81]
- those aged under 22
- those aged over the SPa; and
- those earning below the trigger point for automatic enrolment (currently £10,000 pa from a single employer). This group includes some who have multiple part-time jobs and who may in total earn in excess of the trigger point.
- An estimated 4.78 million self-employed.[82]

Participation rates in pensions generally among employees who are ineligible for workplace pensions (many will be in the first two groups above) have been relatively stable during the period peaking at **21%** in 2006-2009. They subsequently fell to **16%** in 2013 and then rose slightly to **19%** in 2014.[83]

[80] ONS (2015)
[81] PPI (2016d)
[82] ONS (2016)
[83] ONS (2015a)

Among the self-employed, participation rates in pension saving have halved since 2004 and now stand at **16%**.[84]

There is a complex pattern of developments in contribution rates
While boosting the number with a pension, automatic enrolment has lowered both the total and average pension contributions. However, while DC employee contribution rates have decreased, DB contribution rates have increased (Box 4).

As automatic enrolment rates increase in 2018 and 2019 (to **5%** and **8%** respectively) the average contribution rates should also rise.

Box 4: Evidence around changes to contribution rates

In 2002-2003, average total contribution rates to occupational DC schemes (of which there were around 1 million members[85]) were in the region of **10%** of pensionable pay.[86]

There is a consensus that there has been a decline in the average contribution rate:

- Contributions rates have dropped to an average contribution rate of around **5%** in 2014[87],[88]

The typical (median) member of a workplace pension scheme contributes differing amounts according to the type of pension scheme they are in:

- Active members of DB pension schemes have seen contribution rates rise as the overall cost of DB benefits rises
- In the public sector the mean employee contribution was approximately **6%**[89] in 2010 increasing to around **9%**[90] in 2015
- In the private sector, the median has risen from **5.3%** to **6.5%** over the same period
- Contribution rates to occupational DC schemes have decreased from **3.1%** to **1%** (the current automatic enrolment minimum).
- Contribution rates to group personal pensions have decreased from **3%** to **2.4%**.

By 2014, total contributions had risen but were not yet at 2005 levels
Between 2005 and 2014, average private sector contributions fell from **78%** of the public sector average to **59%.**

[84] ONS (2015a)
[85] ONS (2014)
[86] PPI (2003)
[87] ONS (2014)
[88] OPSS (2014)
[89] Independent Public Service Pensions Commission (2010)
[90] House of Commons Library (2012)

However, it has recently been estimated that automatic enrolment has increased the average total contribution rate by **1.05%** of earnings, with employer contributions being increased by **0.6%** and employee contributions by 0.5%.[91]

Consideration of total pension contributions paints an equally mixed picture. In 2005, total pension contributions, as estimated by the DWP[92] (and based on 'normal' contribution rates from ASHE data), stood at **£83 billion**. By 2012 this had fallen to **£73.7 billion**, a function of falling membership levels, lower allowances, and the closure of DB schemes and their replacement with DC schemes with lower contributions. By 2014, total contributions were higher but still not at their 2005 levels at **£80.3billion**.

Costs, charges and good governance

The period since the 2003 landscape report has seen the Government and regulators focus on the impact of charges on retirement outcomes for DC savers. The focus became even more marked with the introduction of automatic enrolment, where savers do not typically choose their pension scheme.

In 2015, a charge cap of **0.75%** per annum[93] on the default fund for automatic enrolment schemes was introduced as well as new governance arrangements for Master Trusts and the introduction of Independent Governance Committees (IGCs) for contract-based workplace pensions.

In 2015[94] the majority of, but not all (**88% of trust-based** and **76% of contract-based**), savers in DC schemes that qualified for automatic enrolment had been subject to charges of at or below the charge cap. Those with higher charges will have seen their charges fall since April 2015.

However, members of non-qualifying schemes were more likely to be subject to charges higher than the cap, which does not apply to:

- **74%** of members in non-qualifying contract-based arrangements paid charges higher than the cap and one in ten faced charges higher than **1%** per annum.[95]
- Around **half** of the members of non-qualifying master trusts and other non-qualifying trust-based schemes paid charges above the cap.[96]

There is some evidence of a trend among occupational DC schemes away from employers funding all or part of the administration and investment costs of

[91] Institute for Fiscal Studies (2016)
[92] DWP (2015d), table 2.1
[93] Or an equivalent combination of contribution, fixed administration and annual management charges as set out in regulations.
[94] DWP (2015e)
[95] DWP (2015e)
[96] DWP (2015e)

running the scheme and for these to be passed on to members, the impact of which is being mitigated in part by the imposition of the charge cap.[97]

The introduction of the pension freedoms in 2015 brought a renewed focus on exit charges for DC pension savers. This in turn has led to changes in regulation with the FCA and DWP committing to capping early exit charges on DC pension schemes on both contract based and occupational schemes.[98]

Steps have been taken to protect DB pension scheme members

The Financial Assistance Scheme and then the Pension Protection Fund (PPF) were established to step in to afford members of such schemes protection from loss. Several hundred schemes have transferred to the PPF since its introduction in 2006. Almost a **quarter of a million** members will now have their pensions paid by the PPF instead of their previous employer's scheme, although the level of pension and subsequent increases may not be as much as the original scheme was due to pay.

Most employers have experienced changes to the cost of and way in which they provide pensions

The two most significant issues facing employers have been:

- the uncertain and rising cost of providing DB pensions which has led to the closure of many DB schemes in the private sector to new members or future accrual;
- the impact of automatic enrolment on employers with and without existing pension provision.

The cost of DB provision has increased

Changes in the accounting standards applied to DB pension schemes in the form of FRS17 and FRS102 combined with periods of poor investment returns and sustained low interest rates have led to changes in the value of assets, liabilities and therefore pension fund funding levels.

The cost of DB pension scheme contributions by employers has risen from around **£25 billion** in 2003 to just over **£35 billion** in 2013, in spite of the closure of most schemes to future liabilities.[99] By 2015, **35%** of these payments are estimated to be attributed to deficit recovery rather than normal contributions. At the same time, deficits have risen rather than fallen with the combined deficit of DB schemes rising from **£22.6 billion** to over **£400 billion**[100] in 2015 (or **£800 billion** on a full buy-out basis).

[97] PLSA (2016b) Costs, capital and charges
[98] FCA CP 15/16 Capping early exit pension charges
[99] PLSA (2016a)
[100] Calculated on a s179 basis

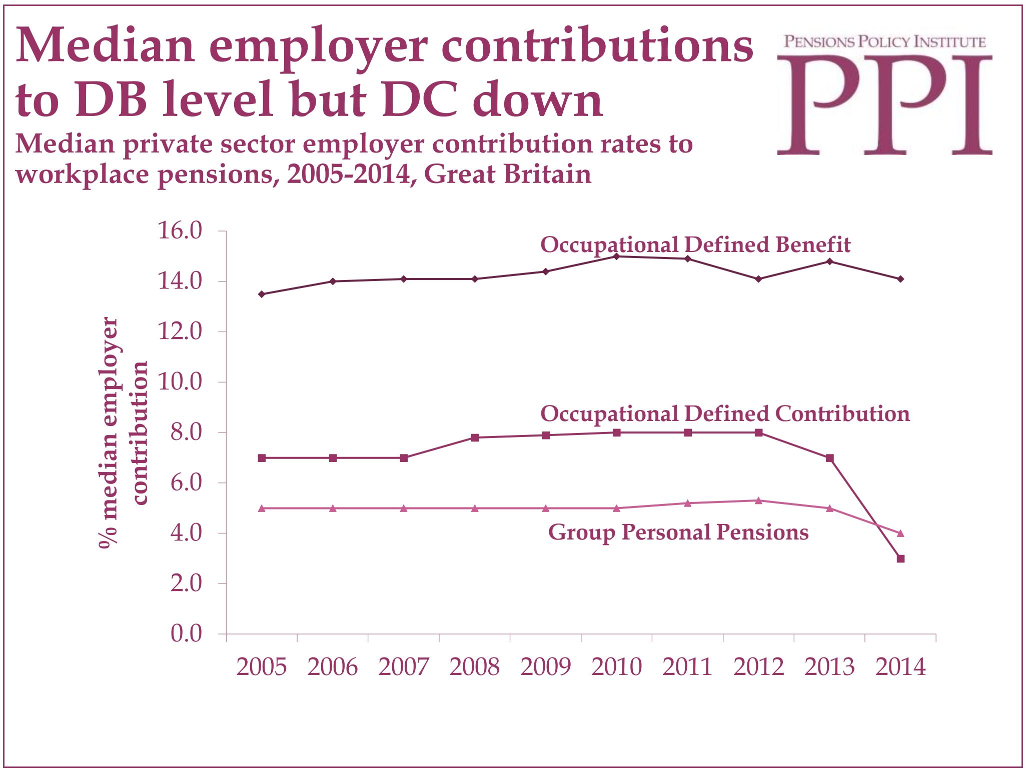
Automatic enrolment introduces new employer responsibilities and costs

The introduction of automatic enrolment and the obligation on employers to establish a pension arrangement, enrol staff and contribute to pensions has boosted pension participation levels in the UK. However, for employers it has introduced new costs, both implementation costs as well as on-going contribution costs. This has been particularly new for smaller employers, many of whom did not operate a pension scheme prior to this policy change.

Total pension contributions have increased but average employer DC contributions have fallen

The impact of automatic enrolment, coupled with increasing DB pension costs has led to an increase in total employer pension contributions over the period. However, average employer pension contributions have, for the short term at least, fallen as large numbers of new savers attracting minimum levels of DC contributions bring down the average (Chart 14). This may be because many small and medium-sized employers are offering workplace pensions for the first time at minimum contribution rates, lowering the average contribution rate.

Chart 14[101]



[101] ONS (2014)

Supply of pensions has changed

Since 2003, there has been a marked change in the supply of workplace pensions, most notably:

- A decline in the number and proportion of open DB schemes in the private sector, from **43%** of private sector schemes being open to new members and future accruals in 2006 to just **13%** in 2015;[102]
- The growth in the number of Master Trusts available to employers as an alternative to single employer occupational schemes or GPPs, with Master Trust membership reaching approximately **3 million** in 2016;[103]
- an increase in the number of GPPs and DC occupational pension schemes but a contraction in the number of providers of Group Personal Pensions.

Different factors have affected the level of government spending on pensions

Government both receives revenue from pensioners and provides in the form of pensioner benefits. It also provides tax relief (and tax deferral) on pension contributions from those of working age. Government finances relating to pensions have been affected by a number of factors over the period 2003-2016 including:

- The number of people at or above SPa rising from **11.43 million** in February 2003 to **13.07 million** in February 2016[104], approximately **98%** of whom are in receipt of at least some State Pension;
- The increase in the number of pensioners in receipt of private pensions with tax receipts from pensioners rising accordingly;
- The effect of basic State Pension rises in excess of prices and earnings in several years as a result of the triple lock during the period in question;
- An initial decline but later increase in the number of individuals saving towards a pension and therefore attracting pension tax relief;
- The rising costs of DB pension contributions and the deferred nature of tax on such contributions;
- Changes to Annual and Lifetime Allowances described above;
- The new pension freedoms, that can affect tax receipts by the Government where individuals access their pension savings.

State pension expenditure increased between 2002 and 2015

In 2015-16, total benefit expenditure on pensioners was projected to reach **£118 billion**[105], and represented **68%** of all DWP benefit expenditure. This had risen from **£86 billion** (in 2016-17 prices) and **57%** of benefit expenditure in 2002-03. As a percentage of GDP, spending on pensioners increased from **5.2%** in 2002-03 to **6.2%** in 2015-16.

[102] The Pensions Regulator and Pension Protection Fund (2015)
[103] The Pensions Regulator (2016a)
[104] DWP quarterly benefit summary February 2016, pension age client group
[105] DWP Budget 2016, table 1a, 2015/16 forecast results

The total benefits spend on pensioners rose by **37%** in real terms over the period compared to a rise of **20%** in benefit expenditure on people of working age.[106]

Of the total spend on pensioners, the state pension initially fell slightly in importance but, from 2008-09 began to steadily rise in importance. By 2015-16 state pensions represented **77%** of benefit spend on pensioners, in large part due to the effect of the triple lock applied to the basic State Pension but not to other pensioner benefits.

In 2015-16, **£90.6 billion** was paid out in state pensions, increasing from **40%** of total benefit spend to **52%**.[107] This represented an increase of **50%** in real terms since 2002-03. Over the same period, expenditure changes in the other main pensioner benefits were:

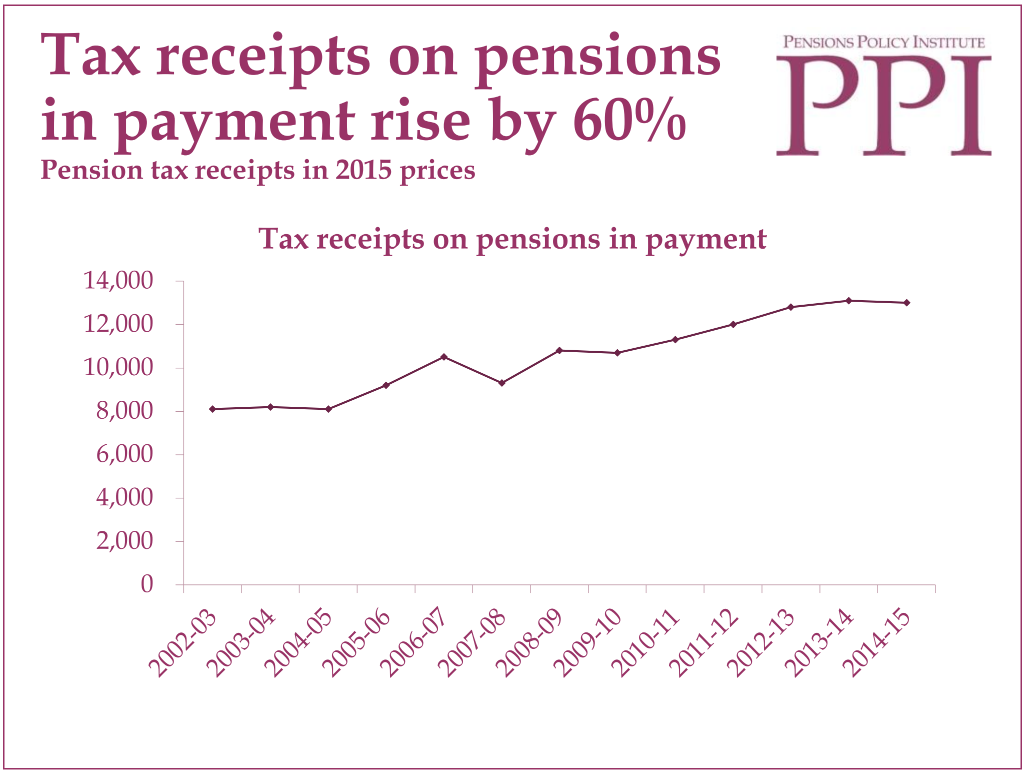
- Attendance Allowance rose by **28%** in real terms;
- Disability Living Allowance rose by **63%**;
- Housing benefit rose slightly by **2%**;
- Pension credit (which replaced income support in 2003/04) rose slightly by **3%**.

Tax paid on pensions in payment increased between 2002 and 2015

Between 2002-03 and 2014-15, tax receipts on pensions rose by **60%** (in 2015 price terms) to **£13 billion**, a consequence of more pensioners being in receipt of private pension income and higher average pensions in payment) lifting more pensioners above tax-free allowances (Chart 15).

[106] DWP quarterly benefit summary February 2016, pension age client group
[107] DWP (2016b)

Chart 15[108]



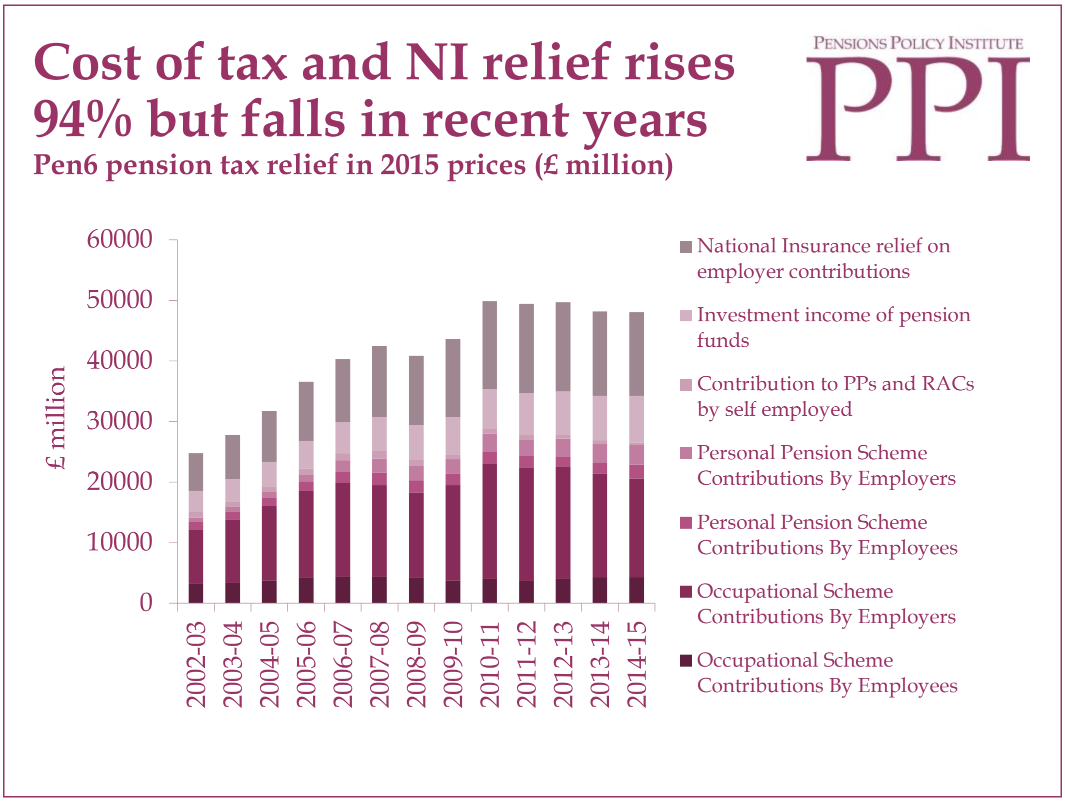
2015-16 seems likely to be seen as a somewhat exceptional year in terms of tax receipts on pension payments. With some people cashing in their DC pensions as a result of the pension freedoms (see above), the Government has estimated that tax receipts arising specifically from the pension freedoms are likely to be **£900 million** in 2015-16[109] (potentially boosting tax revenue from pensioners by **7%** of the 2014-15 figure). Some of this figure will have been brought forward from future years and some will be higher than would have been the case due to the withdrawals taking people into higher tax bands than would have been the case had they withdrawn more gradually.

The cost of pension tax relief increased from 2003, peaked in 2010-11 and has subsequently fallen slightly

In the early years following 2003, the cost of tax and NI relief on pension contributions rose steeply as pension contributions themselves started to rise (see above). However, since peaking (in 2015 price terms) in 2010-2011, the cost has fallen slightly, in part due to reduced Annual and Lifetime Allowances. Over the whole period, the total cost rose by **94%** (Chart 16).[110]

[108] HMRC (2016)
[109] HM Treasury (2016)
[110] Her Majesty's Revenue and Customs (2016)

Chart 16[111]



In 2014-15, the cost of public sector pensions in payment was 2.1% Gross Domestic Product (GDP)[112]

However, this proportion is projected to decrease. This is explored further in Chapter three of this report.

[111] HMRC (2016)
[112] Office for Budget Responsibility (2015)

Chapter three: future impact of pension reforms

This chapter examines the incremental effect of the policy changes outlined in previous chapters on:

- Future pensioners, both a range of individuals and the next cohort to reach State Pension age (SPa);
- Current and future governments (and taxpayers) in terms of the cost of state pensions, pension tax relief and tax revenues from pensions in payment.

Summary of findings for hypothetical individuals

- The 2006 changes to personal allowances for pensions affect only the very high earners and contributors
- 2010 changes to state pensions primarily affect younger median and high earners who are not contracted-out, typically decreasing their retirement incomes
- The triple lock outweighs reductions to lifetime pension income caused by increases to State Pension age (SPa)
- Automatic enrolment (original and delayed) boosts pensions for all eligible individuals without pension provision in the baseline
- Public sector pension reforms reduce retirement income for workers modelled in this report (reflecting the cost saving nature of the changes), but other public sector workers with flatter earnings trajectories may benefit from these
- The charge cap particularly improves retirement incomes for the higher earners in older DC schemes
- Higher earners lose out from the 2015 changes to tax allowances
- Pension freedoms introduce both choice and new risks to the management of retirement income
- Most of the hypothetical individuals modelled experience a decrease in retirement income, before factoring in the impact of the triple lock, relative to the baseline, due to the 2011 increases to SPa
- The introduction of the new State Pension yields both winners and losers with the modelled younger workers previously contracted-out modelled gaining and the younger workers not previously contracted-out typically losing out

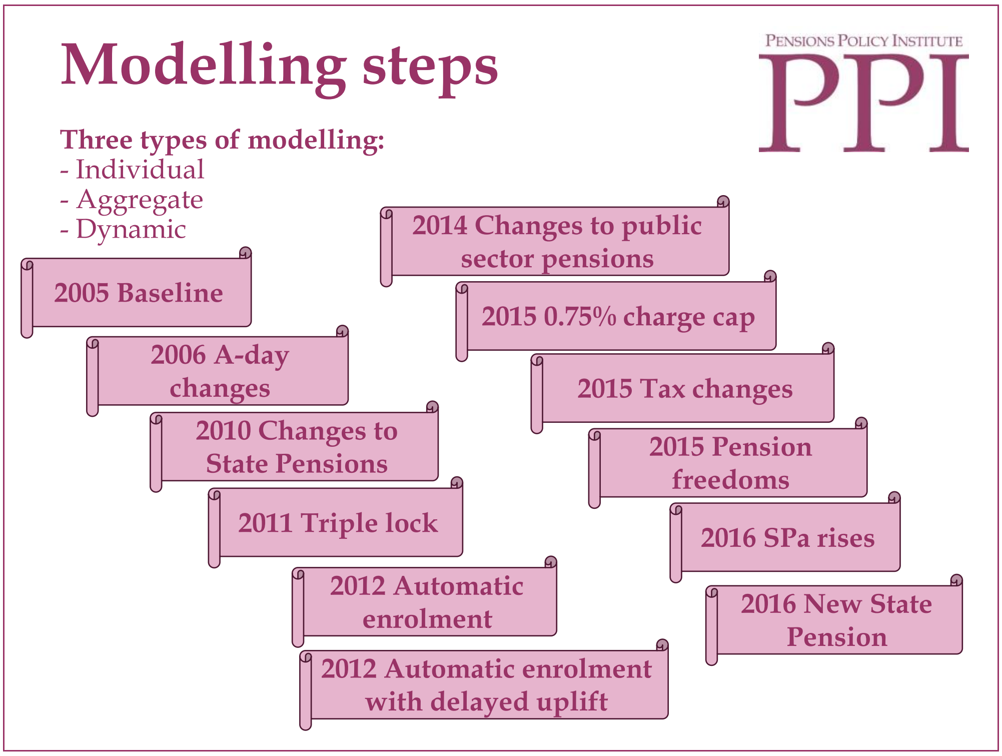
Most of the individuals modelled benefit from the cumulative effect of pension reforms. Those individuals who do not are the older public sector workers who lose out from the public sector pension reforms but do not have sufficient years of remaining working life to build up a full new State Pension. The older private sector worker modelled in this report also loses out from the ending of Savings Credit.[113]

[113]Some other individuals included here lose out from the ending of Savings Credit, but it has only been highlighted in the case of individual 15 in this section

Order of modelling

The next section demonstrates the incremental effect of each of the following policy changes. The starting point is a baseline scenario that assumes that none of the subsequent policy changes had taken place. The order of policy is shown in Chart 17 below.

Chart 17[114]



The baseline scenario involves the following assumptions:

State pension rules:

- Individuals need 39 years (women) and 44 years (men) NI contributions to get full credit towards their basic State Pension
- That the second State Pension will be flat rate by 2030
- That the SPa will be equalised at 65 in 2020 but further changes are not yet implemented
- The State Pension is uprated by the Retail Prices Index (RPI)
- Automatic enrolment is not implemented
- The 0.75% charge cap is not in place and the stakeholder cap applies
- Everyone purchases an annuity with their DC pension and there are no transfers out of DB

[114] The 2014 changes to public sector pensions also include the public sector reforms from 2006-08, the 2011 switch in indexation from RPI to CPI, and increase in employee contribution rates.

- Public sector pensions are based on final salary, are linked RPI and the public sector schemes' normal retirement age is 60 for men and women

Subsequent scenarios add one policy change at a time and project the calculations forward assuming that no further changes are made.

Three types of modelling approaches have been used to measure the impact on individuals (Box 5). Further information is in Annex A.

Box 5: PPI modelling approaches

Individual modelling
Hypothetical individuals have been selected in order to illustrate the way in which the changes may cumulatively affect different individuals. These results are for illustrative purposes and are not intended to be representative of the population.

Dynamic modelling
This takes longitudinal data for the group of individuals in England aged between 50 and SPa in 2010, makes assumptions about their future behaviour and makes deterministic projections about their future retirement incomes to measure how the changes may affect this group. This modelling takes into account the distribution of individuals with different attributes within the population aged over 50 and makes projections for the population with these attributes.

Aggregate modelling
This projects the changes to long-term government expenditure further to the changes to the pensions landscape.

Impact on different categories of individual

The modelling measures the total pension income for 25 hypothetical individuals with the following different attributes (Chart 18):

- ages
- genders
- work and retirement patterns
- public or private sector pensions
- Defined Benefit (DB), Defined Contribution (DC), both or no private pension in the baseline scenario

Total pension income refers to the income that individuals receive between SPa and age 90 from state and private pensions, Pension Credit, the Christmas bonus and the winter fuel payment. This measure is used to illustrate the impact of different SPas. An annual income measure would not fully illustrate the impact of all of the pensions landscape changes. However, an annual measure has also been included for the purpose of comparison. In this report annual income has been calculated by dividing total retirement income by the number of years between SPa and age 90. In the case of those who retire before SPa, the private pension income that the individual is assumed to access before SPa is excluded from this calculation.

The individuals used in this analysis have been selected to show the impact of the policy changes.

Chart 18

Hypothetical individuals

PENSIONS POLICY INSTITUTE PPI

	Male			Female		
	Age 35	Age 45	Age 60	Age 35	Age 45	Age 62
Low income private sector	1. No private pension (baseline)	2. No private pension (baseline)	3. DB pension (early retirement)	13. No private pension (baseline) erratic earning history	14. No private pension (baseline) early retirement	15. No private pension (baseline)
Median income public sector	4. DB pension	5. DB pension erratic earning history	6. DB pension (retires at age 60)	16. DB pension	17. DB pension	18. DB pension
Median income private sector	7. DC pension	8. DB and DC pension	9. DC pension	19. No private pension (baseline)	20. No private pension (baseline)	21. DC pension
High income private sector	10. DC pension	11. DB and DC pension	12. DB pension (early retirement)	22. DC pension	23. DC pension	24. DB and DC pension
Very high income private sector					25. DC pension, high contributions	

The modelling results highlight the different impact of policy changes on different types of hypothetical individual. The hypothetical individuals do not represent a cross-section of the population. The individuals modelled in this report are aged 35 and over. Younger individuals who are automatically enrolled at age 22 would benefit to a greater extent from automatic enrolment, but may also have a higher SPa.

The charts in this section display the total retirement income, including state and private pensions, that an individual would have received if none of the reforms subsequent to 2005 had been implemented. For each subsequent reform, the charts show the resulting increase or a decrease to total retirement income available between SPa and age 90. In reality some people will live for longer and some will live for a shorter time.

The baseline assumes that individuals use their Defined Contribution pension fund to purchase an annuity after taking a 25% tax-free lump sum. The individuals are then assumed to use 50% of their pension fund to purchase an annuity applying the the '4% rule' to the remainder of the pension fund, after the tax-free lump sum. The '4% rule' is where an individual withdraws this amount of their DC pension pot and, in subsequent years, the same amount indexed by inflation.

The impact of different ways of accessing retirement income is investigated in the section considering the impact of the DC pension freedoms.

These calculations assume steady investment returns of 3% in the drawdown product. However, where an individual chooses to draw down their income rather than purchasing an annuity, they may run out of money. Previous PPI research found 17% of pension pots run out before the age of 90 where the individual withdraws 4% of their original pot, uprated in future years by the Consumer Price Index (CPI).[115]

The impact of the changes have been considered at the individual rather than the household level to reflect the shift towards benefits such as the new State Pension being assessed on a similar basis. Further modelling would need to be conducted in order to reflect the impact of changes at the household level.

The remainder of this chapter measures the impact of these reforms in the order of implementation. This illustrates the impact of the changes to the pension landscape on a selection of the 25 individuals because they are likely to be most affected by specific policy changes. All of the charts show the individual's total retirement income from SPa until age 90 in 2016 earnings terms.

2006 changes to personal allowances

The 2006 changes to personal allowances for pensions affect only the very high earners and contributors

Box 6: 2006 changes to personal allowance for pensions

- Removal of restrictions to pension contributions so that individuals can save 100% of their earnings up to a maximum of £215,000
- Introduction of Lifetime Allowance of £1.5 million rising to £1.8 million

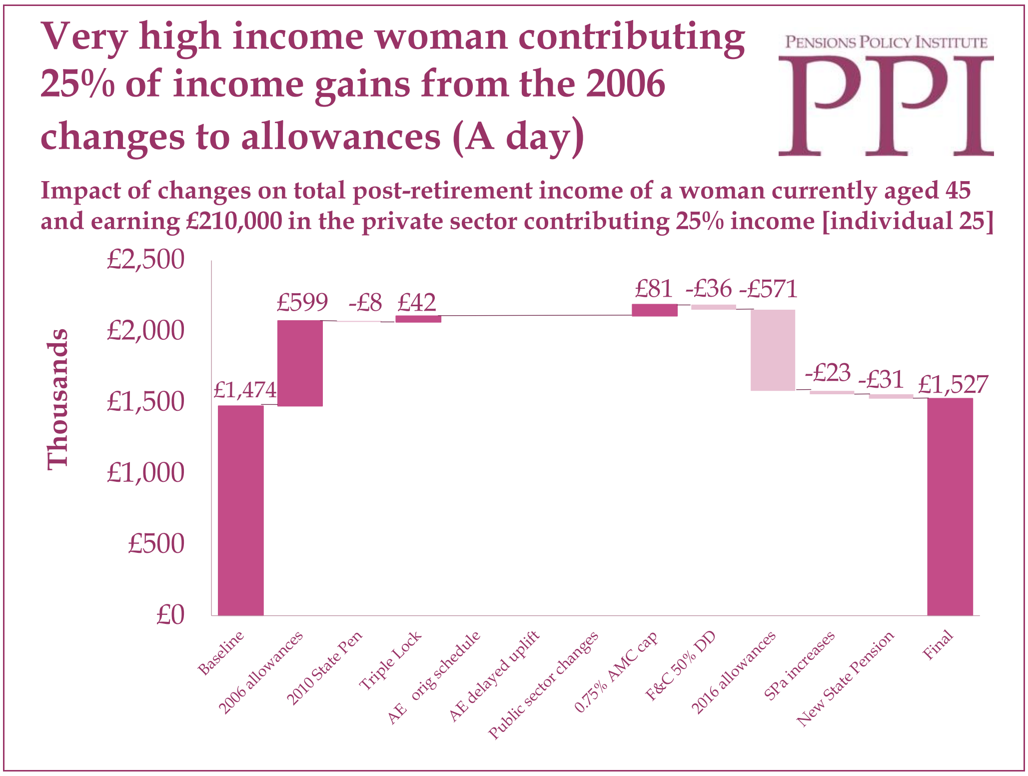
A-day reforms to the Annual and Lifetime allowance only affect the high earning female in a DC scheme who makes very high contributions.

[115] PPI (2015)

The higher earning woman who makes contributions of 25% salary gains from the 2006 changes to personal allowances

Under the baseline scenario, her combined state and private pension would have generated **£1.474 million** from retirement at age 67 to age 90 in 2016 earnings terms (Chart 19).

Chart 19[116][117]



However, her income is boosted considerably by the tax allowance changes and again slightly by:

- the triple lock (an uplift of **£42,000**); and
- the 0.75% charge cap (**£81,000**)

Most of these gains are then wiped out by the introduction of much lower Annual and Lifetime Allowances. This is explained further in the section of this chapter that explores the 2015 changes to the Annual and Lifetime Allowances.

Her projected final total income is **£1.527 million** and projected annual income is **£44,300**.

[116] PPI Individual Model

[117] In this and the following charts F & C 50% drawdown refers to the freedom and choice policy, with it being assumed that individuals use 50% of their fund to purchase an annuity and apply the 4% rule to the remainder, after withdrawing the 25% tax-free lump sum

In practice, subsequent changes to allowance will also have affected some high earners in both public and private sector DB schemes but who are not modelled in this project.

2010 changes to state pensions

Of the individuals modelled, 2010 changes to State Pensions primarily affected those younger median and high earners who have not been contracted-out

Box 7: 2010 changes to State Pensions

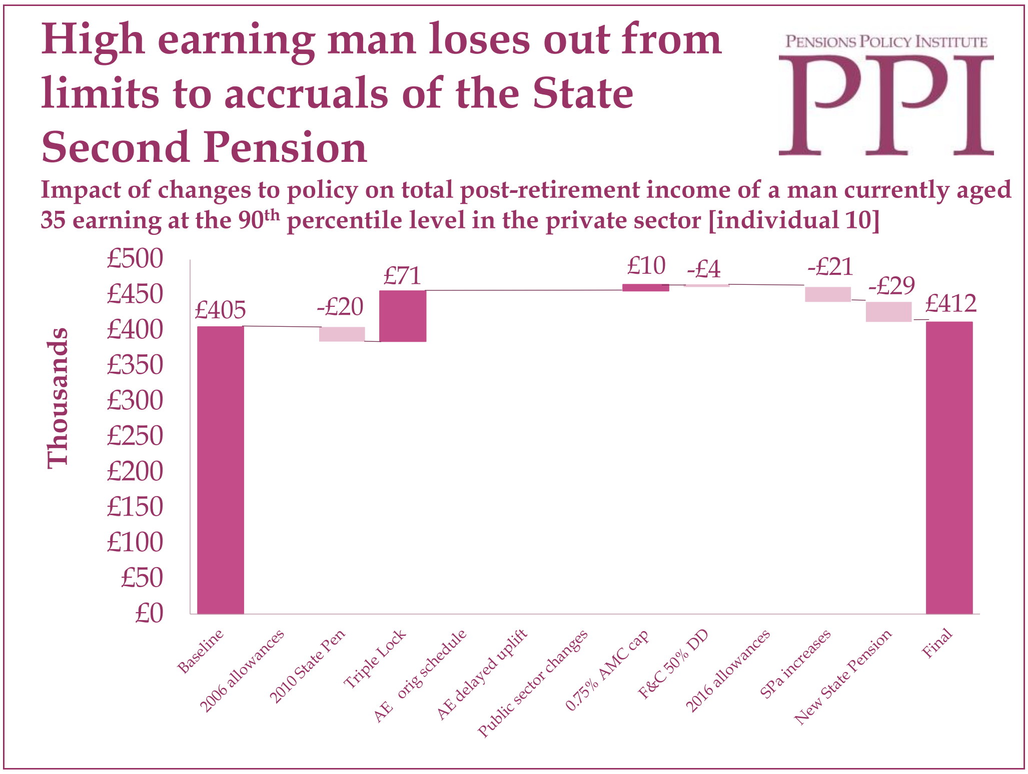
- Reduction in number of qualifying years needed to receive a full basic State Pension to 30 years
- Linking annual cost of living increase in basic State Pension to earnings rather than prices
- Changing contribution conditions for basic State Pension so that it is easier to build up entitlements
- Limits to the amount of State Second Pension that individuals can accrue

Of the hypothetical individuals modelled:

- Median and higher income men and women who have not been contracted-out are more likely to lose out as a result of the reduction in accrual rates for S2P.
- Individuals earning lower incomes do not lose out because they do not accrue sufficient amounts of State Second Pension to be affected by new limits. Individuals who have been contracted out of the State Second Pension are not affected.

The high earning man age 35 loses out from limits to accruals of the State Second Pension

Chart 20[118]



- The high earning man aged 35 (Chart 21) has a total retirement income (in 2016 earnings terms) of **£405,000**. However, this is reduced by **£20,000** by the changes that came in as a result of the 2010 changes to state pensions. This is due to new limits to accruals for the State Second Pension.
- In common with many of the younger individuals, the introduction of the triple lock provides a very significant boost to his income (**£71,000**). However, he loses out by **£21,000** from increases to SPa.

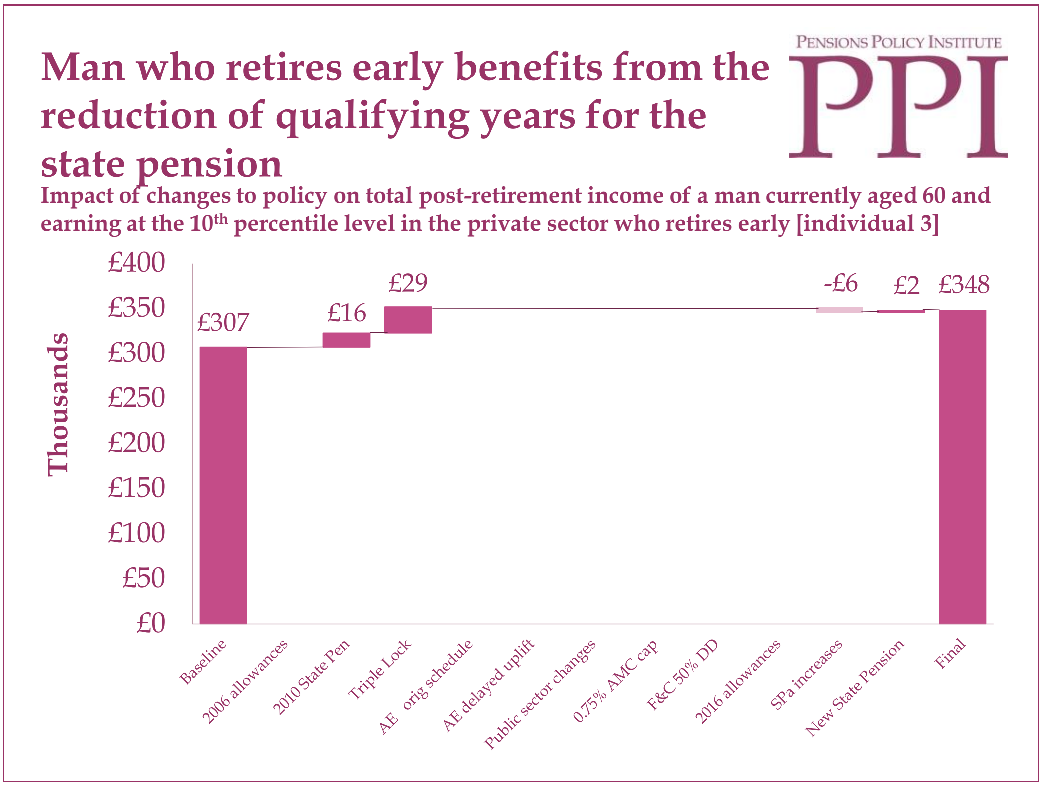
His projected final total income is **£412,000** and projected annual income is **£15,100**.

For the most part, the hypothetical younger individuals modelled are affected to a greater extent by the 2010 changes to state pensions. However, individuals who retire early may also benefit from the reduction in qualifying years for the state pension regardless of their ages in 2016.

118 PPI Individual Model

The man, age 60, who retires early benefits from the reduction of qualifying years for the state pension

Chart 21[119]



The man aged 60 who retires early benefits by **£16,000** (Chart 21) from the reduction of qualifying years for the State Pension. The later increases to the SPa reduce his retirement income by **£6,000**. Overall, the changes between 2003 and 2016 lead to an increase in his total retirement income from **£307,000** to **£348,000**.

[119] PPI Individual Model

Triple lock

The triple lock outweighs reductions caused by later SPa rises for the individuals modelled

Box 8: Triple lock (introduced in 2010, implemented in 2011)

Basic State Pension to be uprated by higher of:
- Earnings
- CPI
- 2.5%

With the exception of the high earners, by far the most important change in policy in the modelling has been the introduction of the triple lock. The modelling suggest that, were this in place, it could boost incomes by more than any reductions brought about by changes to the SPa, even for those women most affected by the 2011 SPa rises.

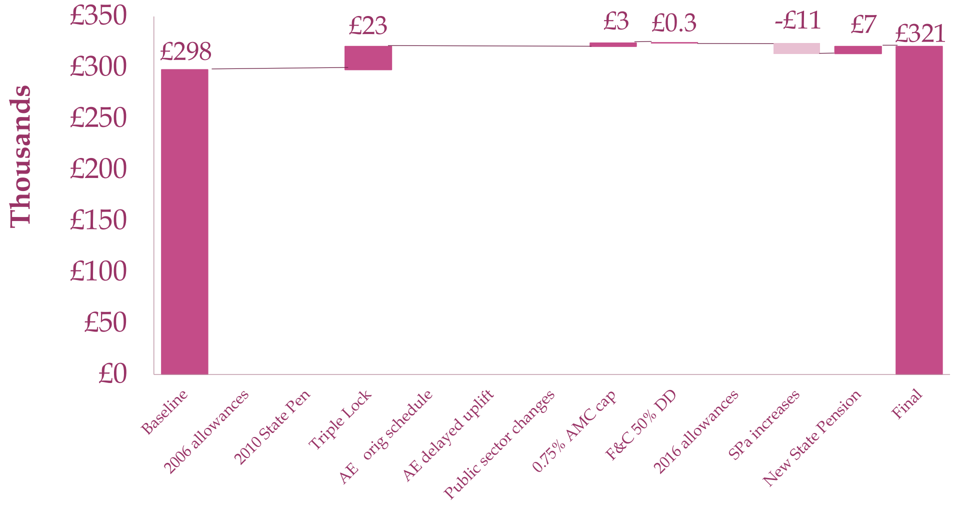
Because the model assumes that the triple lock is maintained throughout the period modelled, the greatest beneficiaries are the young who benefit from the effects of compound indexation before and during their retirement. However, older individuals continue to benefit through their retirement.

For the women aged 62 the impact of the triple lock outweighs changes to her SPa

Chart 22[120]

For the woman aged 62, the impact of the triple lock outweighs changes to her State Pension age (SPa)

Impact of changes to policy on total post-retirement income of a woman earning at the median level in the private sector [individual 21]



- A median earning female in the private sector currently aged 62 and contributing to a DC pension (Chart 22) gains **£23,000** over her retirement through the application of the triple lock (if it is maintained).
- Once the new State Pension is introduced she benefits by a further **£7,000**. This additional benefit relates to the fact that, under the new State Pension, a greater amount of her State Pension is uprated by the triple lock. This compares to the previous system under which only her basic State Pension was uprated by the triple lock, with the remainder being uprated by the Consumer Prices Index (CPI).
- However, the changes to the SPa introduced in 2011 reduce her income in retirement by **£11,000** by increasing her SPa by one year (to age 65) with a maximum of eight years' warning.
- This individual gains **£3,000** of retirement income from a reduction in the charges on her DC pension from 2015.

Her projected final total income is **£321,000** and projected annual income is **£11,000**.

[120] PPI Individual Model

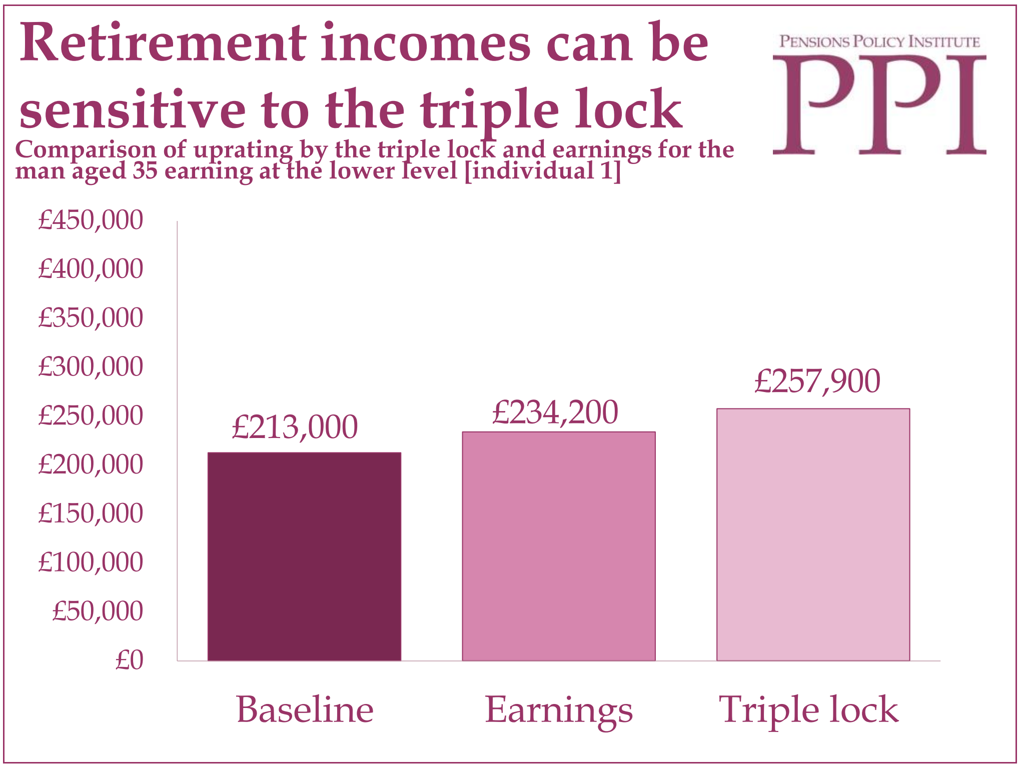
Retirement incomes can be sensitive to the triple lock

Retirement incomes can be sensitive to the triple lock, particularly for the younger individuals modelled. This analysis is conducted to isolate the impact of the triple lock. Under the baseline, the State Pension is uprated by the Retail Prices Index (RPI). The triple lock represents a change to uprating.

Where the man aged 35 has his State Pension uprated by the triple lock rather than RPI, his total retirement income is **£257,900** (Chart 23). This figure represents changes up to the introduction of triple lock in 2010, but does not take into account subsequent changes. This compares to a total retirement income of **£213,000** where his income is uprated by RPI only.

While the State Pension is uprated by the triple lock, it is only required by legislation to be uprated by earnings. If the State Pension was uprated by earnings then it would not increase in value as quickly but would cost the Government less.

Chart 23[121]

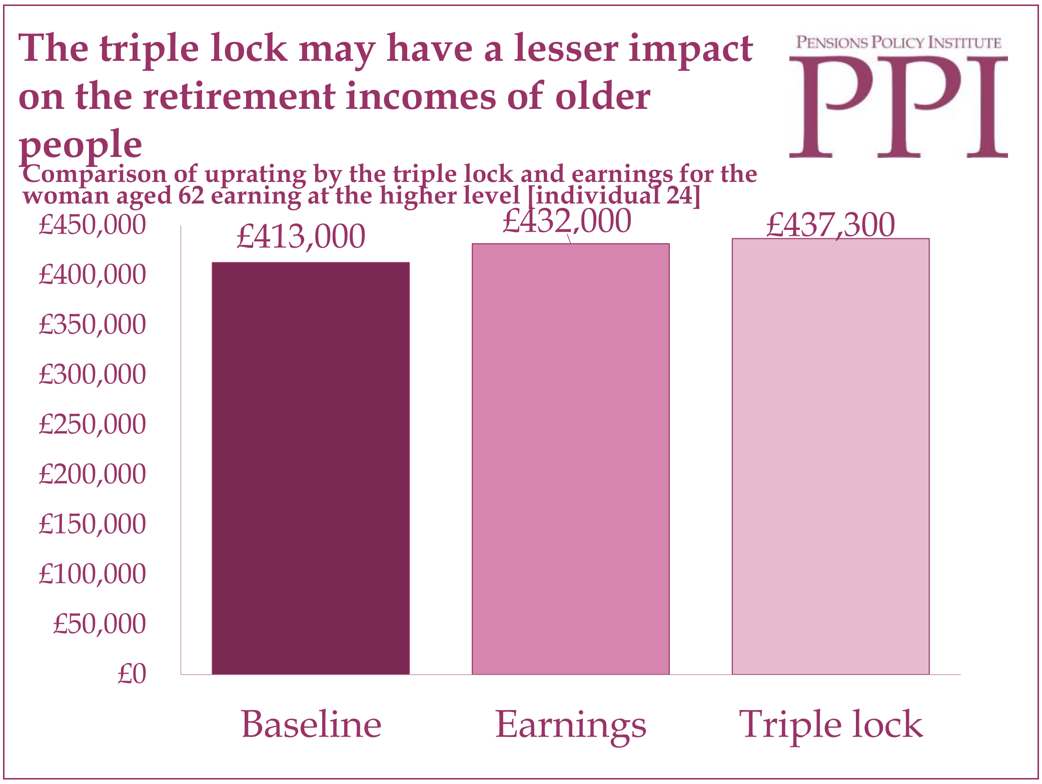


The woman aged 62 is affected to a lesser extent by the triple lock because she has less time for the compound effect of indexation under the triple lock to accrue.

[121] PPI Individual Model

Where her State Pension is uprated by the triple lock rather than earnings, her total retirement income is **£437,300** (Chart 24). This compares to a total retirement income of **£432,000** where her income is uprated by earnings only. Again, both of these figures represent changes up to the introduction of triple lock in 2010, but do not take into account subsequent changes.

Chart 24[122]



[122] PPI Individual Model

Automatic enrolment

Automatic enrolment boosts pensions for the hypothetical low and median earners

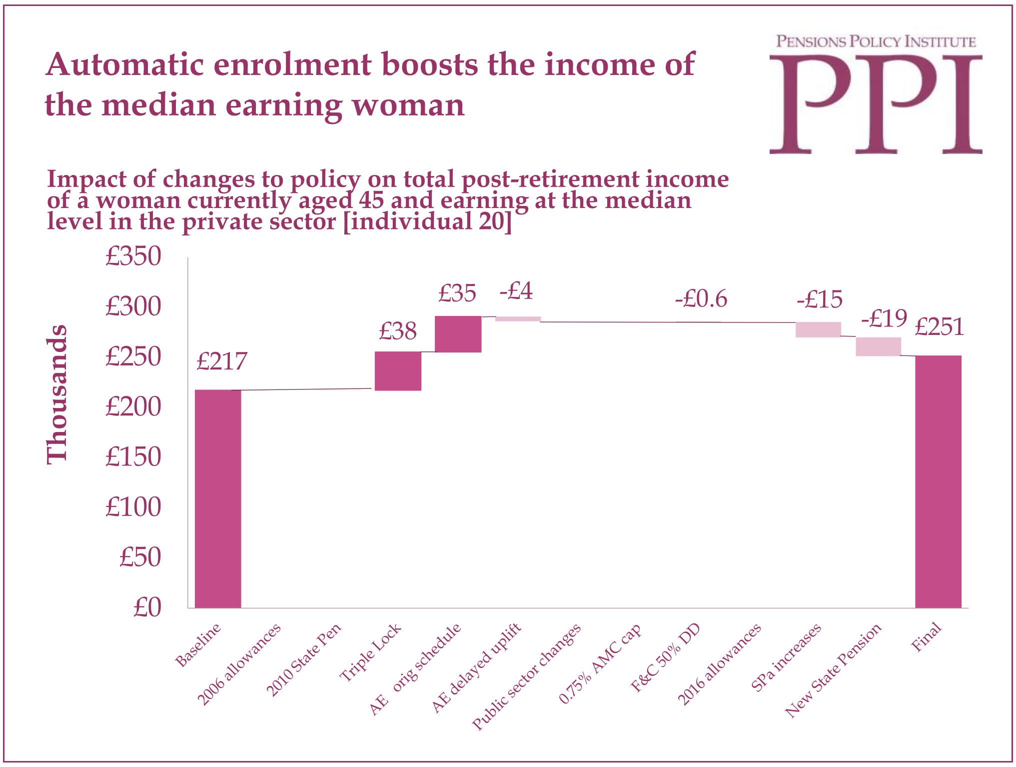
Box 9: Automatic enrolment

- All qualifying employees to be automatically enrolled from October 2012, on a staged (large employers first) and phased basis (in the first instance employees contribute 3% of their salary up to 8% of their qualifying earnings).
- Completion of phasing delayed from October 2018 to April 2019 to align with the start of the tax year and changes to personal allowances.

Since automatic enrolment minimum contributions are calculated on a band of qualifying earnings, the higher an individual earns (up to the limit) the more they will contribute through automatic enrolment, and therefore the median earner will gain more from automatic enrolment in absolute terms. The individuals modelled in this report are aged 35 and over. Younger individuals who are automatically enrolled aged 22 will benefit to a greater extent from automatic enrolment.

The median earning woman age 45 gains from automatic enrolment

Chart 25[123]



For the median earning female with no pension under the baseline model (Chart 25), automatic enrolment boosts her retirement income of **£217,000** by **£34,000** (once the delay in the uplift of contributions is factored in).

Her projected final total income is **£251,000** and projected annual income is **£10,100**.

[123] PPI Individual Model

Public sector pension changes

Public sector changes reduce retirement income for public sector workers modelled in this report, but other public sector workers may benefit from these reforms

Box 10: Changes to public sector pension schemes

- Moves to career-average schemes
- Increases to employee contributions
- Changes in accrual rates
- Increases to normal pension ages
- Changes introduced from 2014 onwards
- Change in indexation to RPI to CPI

The hypothetical individuals working in the public lose out from the changes to public sector pensions. However, the males and younger workers lose more from these changes than females and older workers for the following reasons:

- Males' salaries have different trajectories to female salaries with greater peaks and they may, therefore, lose out to a greater extent from career averaging;
- Older workers benefit to a greater extent from their accruals to date which are unaffected by the changes.

As the public sector reforms save money overall, many public sector workers receive a lower public sector pension under the reforms. Previous PPI research projected that proposed reforms to the NHS, Teachers, Local Government and Civil Service pension schemes would reduce the average value of the benefit offered across all scheme members by more than a third.[124] However, the impact of the triple lock and the new State Pension may offset this for younger workers with public sector pensions.

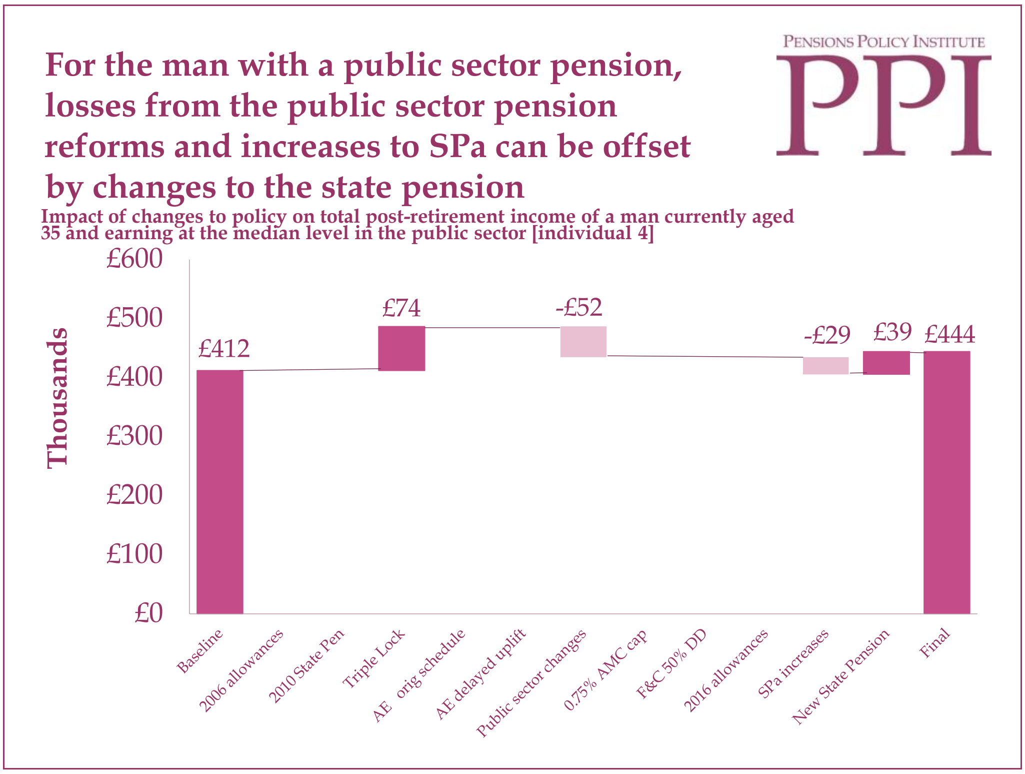
The individuals modelled in this report have earnings that are assumed to increase with average earnings and also allow for salary progression. For these reasons, they would have received a greater pension under the previous system (based on their final salary) than they receive under the current system (based on their average salary). However, individuals with a flatter salary progression would benefit from the reforms due to the more generous accrual rate. For example, it was calculated that the proposed public sector reforms would lead to an increase in the pension benefit of an NHS scheme member with slow salary progression from **11%** to **15%** of salary.[125]

[124] PPI (2013)
[125] PPI (2013)

For the man age 35, losses from the public sector pension reforms and increases to SPa can be offset by changes to the State Pension

The median earning man aged 35, with a public sector scheme, loses **£52,000** from changes to public sector pensions (Chart 26). However, the fact that he is young means that changes to the State Pension offset his losses from public sector reforms.

Chart 26[126]



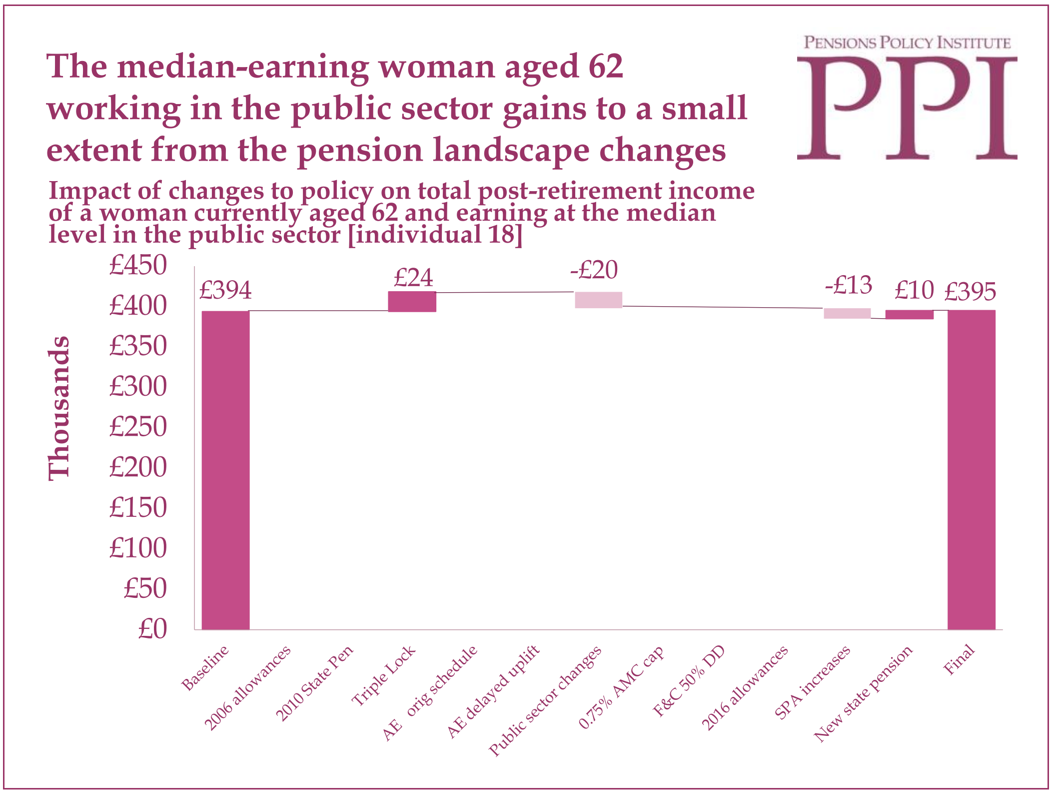
- He has a long period of time for benefits from the triple-lock, totalling **£75,000**, to accrue.
- He benefits from the new State Pension because he was contracted out under the previous state pension system. This means that at April 2016 he is treated as having accrued fewer state pension rights than a similar individual who has been contracted-in. The new State Pension rules and his age mean that he is subsequently able and has sufficient remaining years of working life to accrue the full rate of the new State Pension between April 2016 and his SPa.

His projected final total income is **£444,000** and projected annual income is **£17,200**.

[126] PPI Individual Model

The median-earning woman aged 62 loses from the public sector changes but gains to a small extent from the pension landscape changes

Chart 27[127]



- The female age 62 working in the public sector does not lose out to the same extent from the reforms to public sector pensions because she is close to retirement when the reforms were introduced (Chart 27).
- She does not benefit to the same extent as the younger man from the triple lock (gain of **£24,000**) because she has less time for the compound indexation from the triple-lock to accrue.
- She does not benefit to the same extent from the new State Pension because she does not have sufficient remaining years of working life to accrue the new full State Pension.
- She loses **£13,000** from the increases to SPa. Despite this, the impact of changes to state pensions outweighs the impact of the increase to her SPa. While her baseline total retirement income is **£394,000**, her final total retirement income is **£395,000**. Her projected final annual income is **£13,700**.

[127] PPI Individual Model

Charge cap

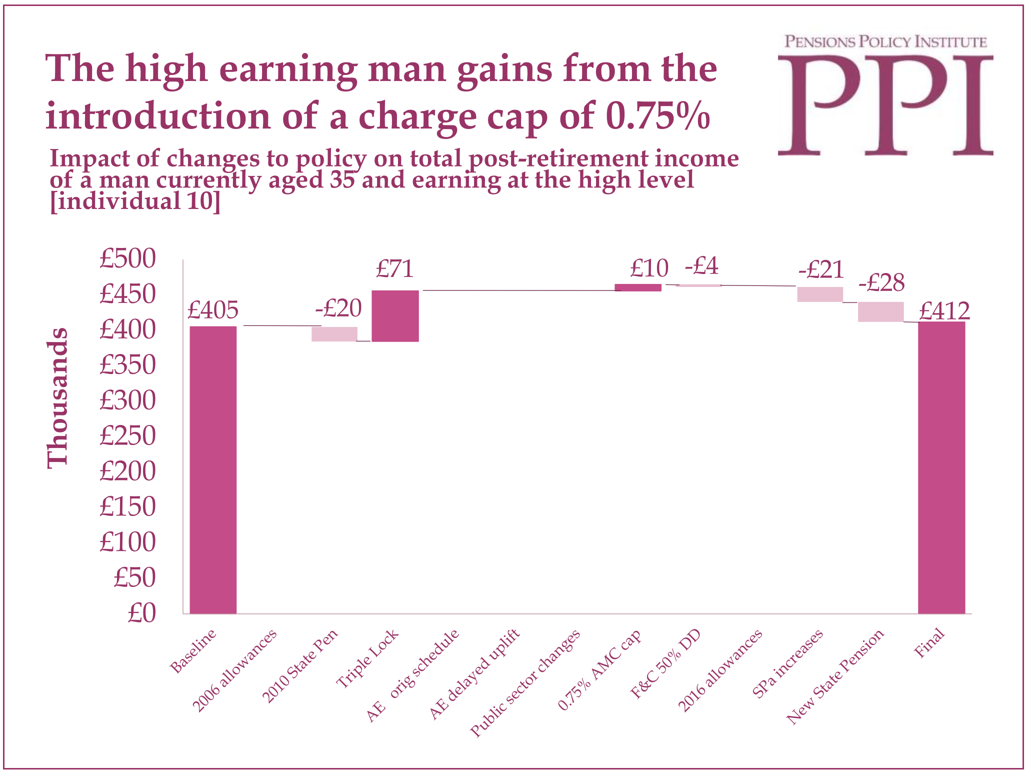
The charge cap particularly improves retirement incomes for the higher earner who is in an older DC scheme

Box 11: 0.75% charge cap

- Charge cap of 0.75% for default funds in qualifying schemes for automatic enrolment (2015)

The high earning man aged 35 gains from the introduction of a charge cap of 0.75%

Chart 28[128]



The high earning man (Chart 28) gains **£10,000** from the introduction of the charge cap (the modelling assumes that his pension fund had an Annual Management Charge (AMC) of 1% before the introduction of the charge cap). He gains more than the other individuals modelled because he is assumed to accrue a relatively large pension fund on which the charge is levied and because

[128] PPI Individual Model

he is young and therefore has a long period of time over which he pays lower charges than in the baseline.

His projected final total income is **£412,000** and projected annual income is **£15,100**.

The charge cap does not affect automatically enrolled people because it is assumed that the charges for funds used for automatic enrolment are lower than 0.75%.

2016 tax allowances

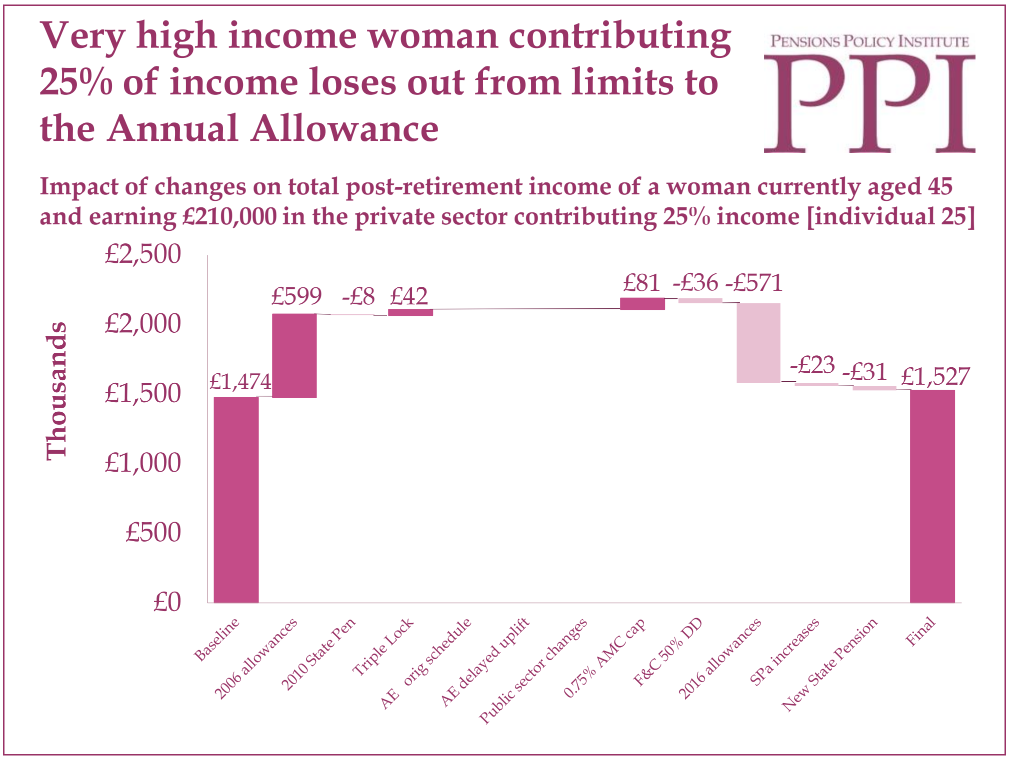
2016 changes to tax allowances affect higher earners

Box 12: 2016 changes to tax allowances

- Restriction of tax relief for those individuals who earn over £150,000.
- Annual Allowance tapers from £30,000 to £10,000 as salary rises from £150,000. Those individuals earning over £210,000 have an Annual Allowance of £10,000.

The high earning woman making pension contributions of 25% of her salary loses out from limits to the Annual Allowance

Chart 29[129]



The very high earning female loses **£571,000** from the 2015 changes to tax allowances (Chart 29). The modelling assumes that, as she earns, £210,000 per year her Annual Allowance is reduced to **£10,000** and she, therefore, limits her annual pension contributions to this amount.

[129] PPI Individual Model

Her projected final total income is **£1.527 million** and projected annual income is **£44,300**.

Pension freedoms

Pension freedoms introduce choice but new risks to the management of retirement income

Box 13: Pension freedoms

- Removal of restrictions to how individuals can access their DC pensions (2015)

The modelling examines what would happen to retirement income under four different alternatives to buying an annuity with a DC pot:[130]

- Taking all of the DC pot as cash and spending it.
- Applying the 4% rule through drawdown to 75% of the fund, and buying an annuity with the remaining 25%;
- Applying the 4% rule through drawdown to 50% of the fund, and buying an annuity with the remaining 50%;
- Applying the 4% rule through drawdown to 25% of the fund, and buying an annuity with the remaining 75%.

This is intended to represent a range of possible behaviours.

Where drawdown has been modelled, the pension pot remaining at age 90 has been **excluded from** the retirement income, although this may be an intended retirement goal.

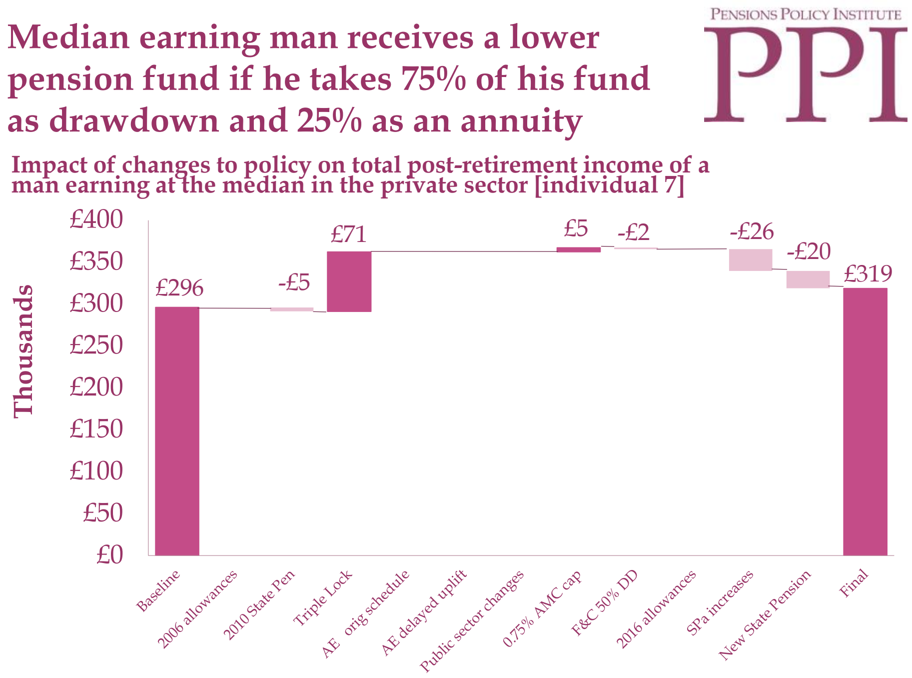
The effect of the freedoms is most marked among those with DC pension contributions above the automatic enrolment minimum and with higher earnings. This reflects the fact that they have built up bigger pension pots.

Those people with DB pensions only are not affected by freedom and choice unless they transfer their DB pension into a DC scheme. However, individuals with unfunded public sector pensions are not able to transfer these into a DC scheme.

[130] The modelling assumes that any DB pots continue to be taken as an income from the DB scheme.

The man earning at the median level receives a lower value pension fund but more cash at age 90 if he takes 75% of his pension fund as drawdown and 25% as an annuity

Chart 30[131]



Freedom and choice options – impact on value before subsequent changes such as SPa increases and the new State Pension	
Cash	£217,000
75% drawdown, 25% annuity	£316,000
50% drawdown, 50% annuity	£318,700
25% drawdown, 75% annuity	£321,400
100% annuity	£324,100

Based on the modelling assumptions, the hypothetical man aged 35 earning at the median level (Chart 30) could have a lower income if he takes more as drawdown and less as an annuity. Broadly, this is because, where he uses drawdown, he may end his life with money remaining in his pension fund. This is not included as retirement income in this analysis.

[131] PPI Individual Model

- Should he take the whole as cash and spend it, his retirement income (from pensions) would be **£217,000**.
- His income is higher if he takes more as an annuity and less as drawdown. He would receive **£316,000** if he chooses to apply the 4% rule to 75% of his pension fund through drawdown and use the remaining 25% to purchase an annuity. He would have **£9,600** remaining in his pension pot at age 90.
- If he uses 50% to purchase an annuity and applies the 4% rule to the remainder of his pension fund, after the tax-free lump sum, he would have an income of **£318,700**. This equates to a projected final annual income of **£12,400**. He also has **£6,400** remaining in his pension pot at age 90.
- He would receive **£321,400** if he applies the 4% rule to 25% of his pension fund through drawdown and use the remaining 75% to purchase an annuity. He would have **£3,200** remaining in his pension at age 90.

Some individuals could have money remaining in their pension pot at the end of their lives, which is not considered to be retirement income in this analysis. Where individuals end life with a large remaining pension pot this may signal that they have under-consumed and could have used up more of their pension pot. This highlights the risk of people drawing down their pensions too slowly, and having a lower standard of living than necessary over the course of their retirement. There is also a risk of people drawing down their pensions too quickly and running out of money, potentially falling back on state means-tested benefits subsequent to this.

Total retirement income is only one measure of the effectiveness of different approaches to retirement income management. The extent to which the retirement income approach meets an individual's needs over the course of their retirement is also important.

These outcomes depend on the approach that he takes to the management of retirement income and demonstrate the level of uncertainty and flexibility linked to freedom and choice.

State Pension age increases

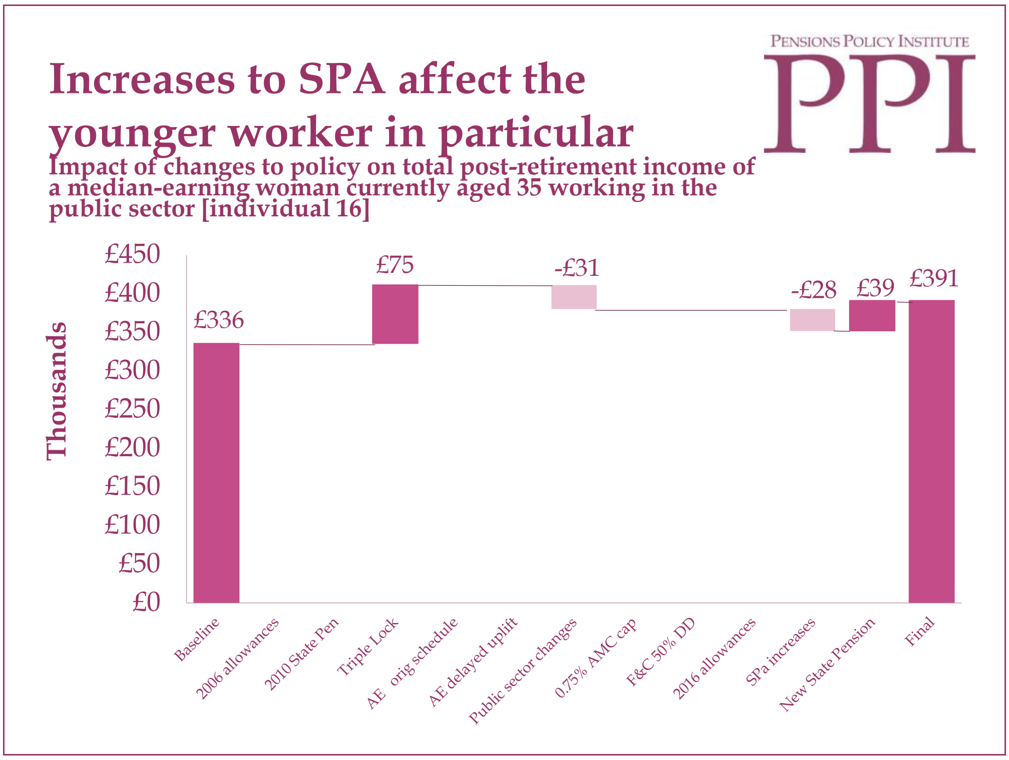
Most of the hypothetical individuals modelled experience a decrease in retirement income relative to the baseline, due to the 2011 increases to State Pension age

Box 14: 2011 increases to State Pension age

- Bringing forward of increases to women's SPa from 2020 to 2018
- Increasing SPa for both men and women to reach 66 by October 2020
- Increases to start from 2018.

The woman age 35 is affected by increases to SPa

Chart 31[132]



The median-earning woman working in the public sector, aged 35, loses **£28,000** from the changes to SPa (Chart 31). She also loses **£31,000** from the changes to public sector pensions. However, the triple lock and new State Pension mean that she benefits from the cumulative effect of the changes.

[132] PPI Individual Model

Her projected final total income is **£391,000** and projected annual income is **£15,400**.

Individuals typically lose out from the increases to SPa, in comparison with the baseline, as they start to receive their State Pension later. However, SPa increases were designed to keep pace with increases to life expectancies. Therefore, individuals may not receive less State Pension overall relative to previous generations if they have also have longer life expectancies.

New State Pension

Some of the hypothetical individuals modelled benefit from the new State Pension while others lose out

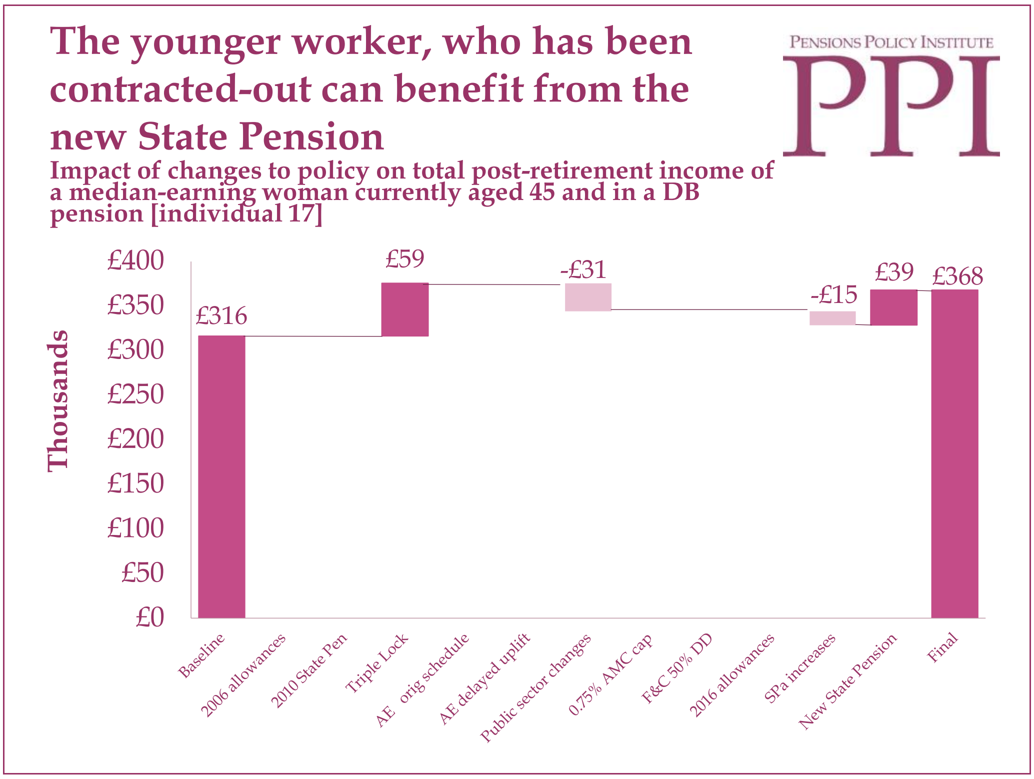
Box 15: New State Pension

- Flat-rate pension based on 35 qualifying years
- Ending of the additional State Pension
- Ending Savings Credit
- Starting in 2016

Some of the individuals modelled benefit from the new State Pension while others lose out. Younger individuals who were previously contracted-out of the State Pension may gain from this. This is because from April 2016 these individuals are treated as having accrued fewer state pension rights than similar individuals who have been contracted-in. However, the new State Pension rules and their age mean that they are subsequently able and have sufficient remaining years of working life to accrue the full rate of the new State Pension between April 2016 and SPa.

The woman aged 45 who has been contracted-out can benefit from the new State Pension

Chart 32[133]



The public sector worker aged 45 (Chart 32) loses **£31,000** from the public sector pension reforms. However, she subsequently gains **£39,000** from the new State Pension because she is able to accrue rights to the full new State Pension of £155.65 per week, uprated throughout her retirement, between April 2016 and her SPa. This compares with the previous system under which she would only have £119.30 per week, uprated throughout her retirement, if she remained contracted-out for her entire working life.

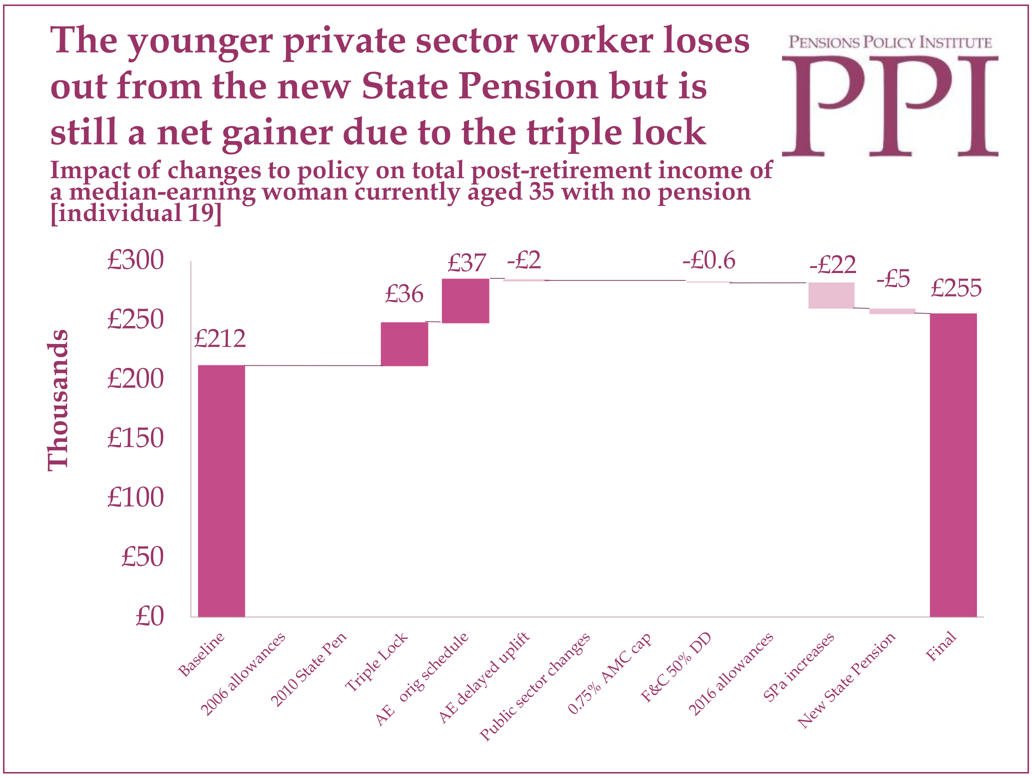
Her projected final total income is **£368,000** and projected annual income is **£14,100**.

In contrast younger workers who have not been previously contracted out may lose out from the new State Pension. This is because, if the previous system had remained in place, they would have accrued an amount of additional State Pension making their State Pension amount over the new State Pension level.

[133] PPI Individual Model

The private sector worker age 35 loses out from the new State Pension but is still a net gainer due to the triple lock

Chart 33[134]



The median-earning woman aged 35 with no pension in the baseline loses **£5,000** from the introduction of the new State Pension (Chart 33). However, she remains a net gainer as a result of automatic enrolment and the triple-lock.

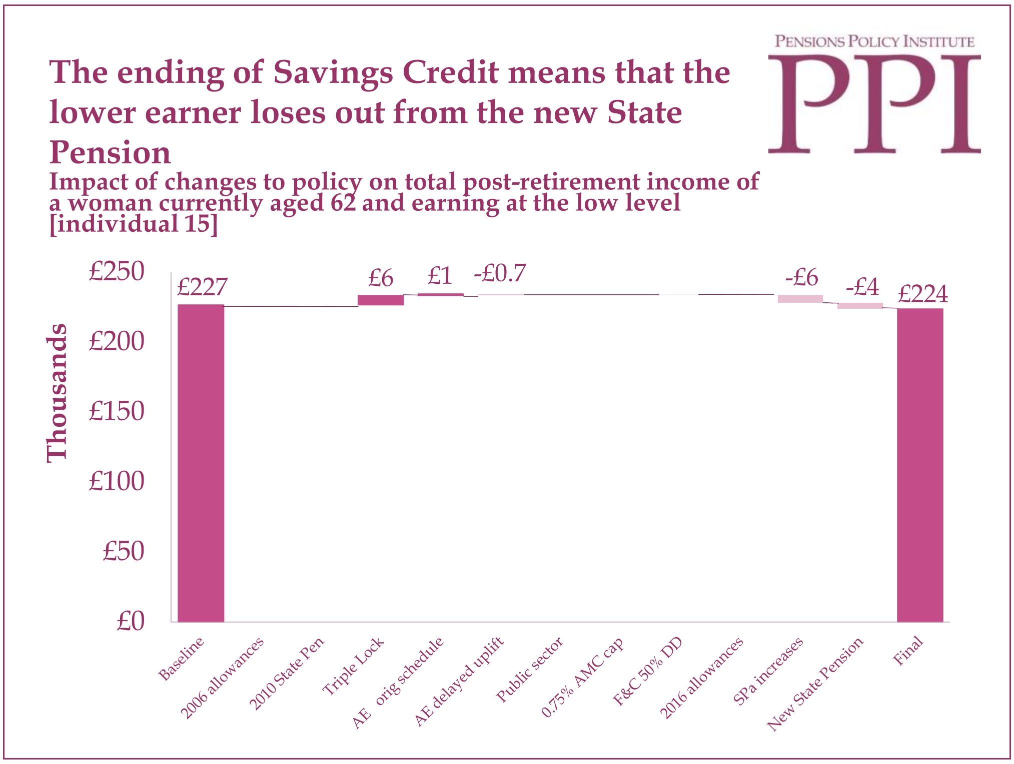
Her projected final total income is **£255,000** and projected annual income is **£10,600**.

In the past, individuals with low income or retirement savings received Savings Credit. However, this is no longer available to people who reach SPa after 2016 and, therefore, some individuals with low amounts of private pension savings may lose out from this.

[134] PPI Individual Model

The lower earner loses out from the new State Pension

Chart 34[135]



The woman aged 62 with a low income (Chart 34) loses **£4,000** due to the ending of Savings Credit. Overall, she loses out from the cumulative impact of the policy reforms between 2003 and 2016 so that she is projected to have a total retirement income of **£224,000** after the implementation of the reforms compared to **£227,000** under the baseline scenario. This is, to some extent, because her age means that she only accumulates a very small private pension under automatic enrolment

Her projected final total income is **£224,000** and projected annual income is **£8,600**.

Most of the individuals modelled benefit from the cumulative effect of pension reforms

The triple lock outweighs reductions caused by increases to SPa for all individuals modelled.

Those individuals who do not benefit are the older public sector workers who lose out from the public sector pension reforms but do not have sufficient years

[135] PPI Individual Model

of remaining working life to build up a full new State Pension.[136] The older private sector worker modelled in this report also loses out from the ending of Savings Credit.

Estimating the distribution of outcomes from the pension landscape changes

The PPI Dynamic Model projects retirement incomes for individuals taken from the English Longitudinal Study of Ageing (ELSA) wave 5 (2010-2011) dataset.

Using information from ELSA to inform the base year position (2010), the model projects retirement income in future years for individuals aged between 50 and SPa, assuming that their behaviour does not change (e.g. the employee contribution rate is assumed to remain constant unless they are automatically enrolled). It models the impact of the following developments on individuals' retirement incomes:

- Triple lock
- Automatic enrolment as originally planned
- Delay to the phasing of automatic enrolment contributions
- Charge cap for default funds of qualifying automatic enrolment scheme of 0.75% per annum
- 2011 increases to SPa
- New State Pension

This modelling assumes that individuals use their private pension savings to purchase a single life level annuity at SPa and that they live until age 90.

The analysis is based on the following assumptions:

- Total pension income refers to private pension and state pension income
- It is assumed that all individuals reaching SPa from April 2016 onwards receive the full new State Pension.
- Total income is net of tax.
- Under the baseline, individuals use their DC private pensions to purchase an annuity.
- Individuals live until age 90.
- Under freedom and choice that individuals use half of their DC pension fund after withdrawing their tax-free lump sum to purchase an annuity and the remainder is drawdown.
- Individuals' status in 2010 continues until SPa (e.g. if they are working in 2010, it is assumed that they continue to work until their SPa).

These results are representative for those individuals aged between 50 and SPa in the base year, 2010 (except for life expectancy which will vary).

[136] However, GMP indexation is not taken into account in this report

As the analysis assumes that individuals live until age 90 this may over or under-estimate the amount of income that an individual receives.

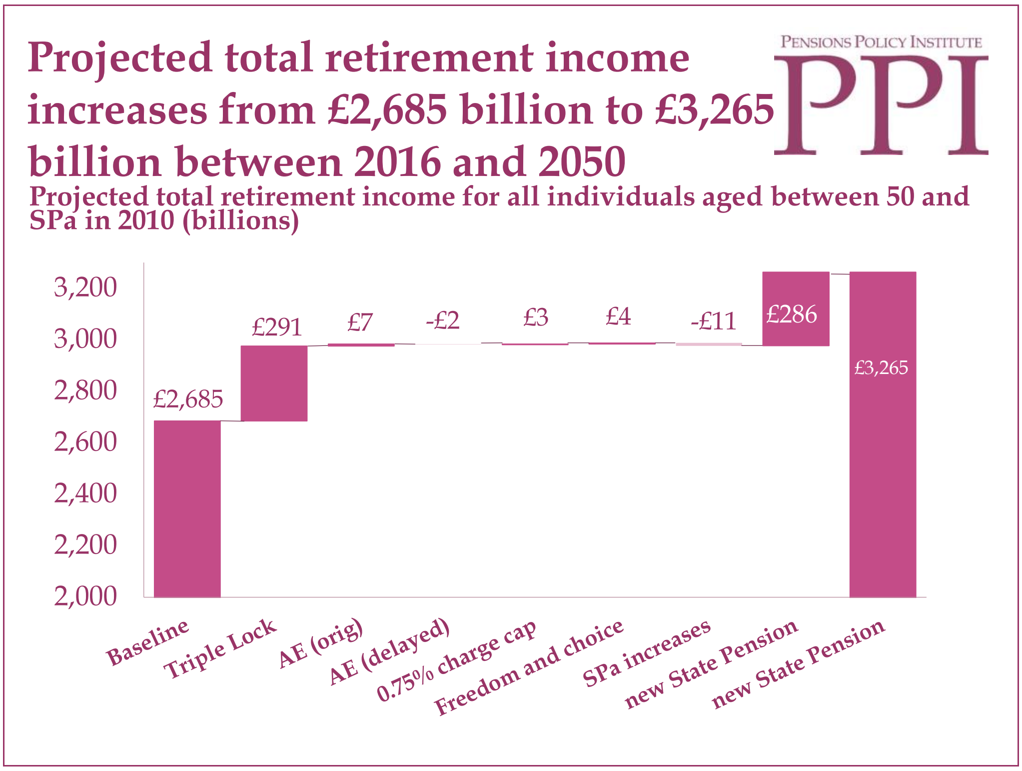
This modelling does not take into account the 2006 and 2016 changes to the pensions tax allowances. However, as these changes most likely had an impact on individuals with large pension pots and the distributions in this report are for individuals with no higher than the 90th percentile value of total retirement income, this is unlikely to affect the distributions shown here.

Projected total retirement income increases as a result of the pension landscape changes introduced between 2010 and 2016

- Total pension income for the cohort as a whole is projected to increase from **£2,685 billion** to **£3,263 billion** between 2016 and 2046 (Chart 35).
- The triple lock makes the biggest contribution to this increase followed by the new State Pension. The 2011 increases to SPa lead to a decrease of **£11 billion** in projected total pension income.

Only those individuals who were aged 50 to 64 in 2010, and therefore reaching SPa in the relatively near future are included in the analysis. Therefore this analysis does not capture the full impact of automatic enrolment on the retirement income of individuals aged under 50 in 2010. These individuals could build up significantly higher private pension saving than the individuals included in this section of the report.

Chart 35[137]



The figures included here show the distribution of total pension incomes subsequent to each policy change. An individual at a particular point in the distribution will not necessarily be at the same point in the distribution after the subsequent policy is introduced (e.g. an individual who is at the 10th decile point of the distribution at the baseline will not necessarily be at the 10th decile point after the introduction of the triple lock). For this reason, findings reflect shifts in the overall distribution rather than shifts in outcomes for specific individuals.
Only those individuals who were aged 50 to 64 in 2010, and therefore reaching SPa in the relatively near future are included in the analysis. As those who women who were aged 60 and over had already reached SPa by 2010, the group aged 60-64 includes men only.

This analysis does not capture the impact of automatic enrolment on the retirement income of individuals aged under 50 in 2010. People under 50 will build up significantly higher private pension saving than the individuals included in this section of the report.

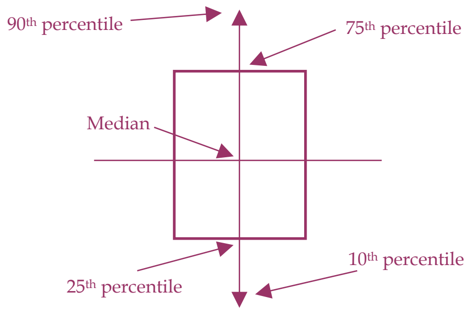
Broadly, those with lower starting incomes benefit to a greater extent from the cumulative impact of the reforms. Women and those aged 50 to 54 in 2010 (who

[137] PPI Dynamic Model

reach SPa between 2022 and 2026) benefit to the greatest degree from the reforms.

Box plots

The next chart is a box plot. Box plots allow graphic representation of a distribution of outcomes. The rectangle represents the 25th to 75th percentiles of the distribution while the end of the vertical line represent the 10th and 90th percentiles. The horizontal line through the box represents the median.



Incomes in the middle of the income distribution increase to the greatest degree

Incomes for the middle of the income distribution increase to a greater degree than the incomes for the 75^{th} and 90^{th} percentile points (Chart 36 and Table 1). These increases for the points in the middle of the distribution in both absolute and percentage terms. While the median point has increased by **£58,900 (37%)** the 90^{th} percentile point has increased by **£43,100 (10%)**. The introduction of the new State Pension in particular has boosted incomes for the 10^{th}, 25^{th} and median points in the range of retirement incomes.

While SPa increases lead to decreases in total pension income for lower and median earners, they lead to small increases in income for higher earners. This is because they are assumed to work and to contribute to their private pensions for a longer period than under the baseline, accumulating a larger private pension. As they are assumed to make higher pension contributions than lower earners, this increase in their private pension funds more than compensates for any projected loss of income due to SPa increases.

Chart 36[138]

The changes between 2010 and 2016 have increased incomes most for those in the middle of the income distribution

Distribution of post-retirement incomes for entire sample (aged 50 to 64 in 2010)

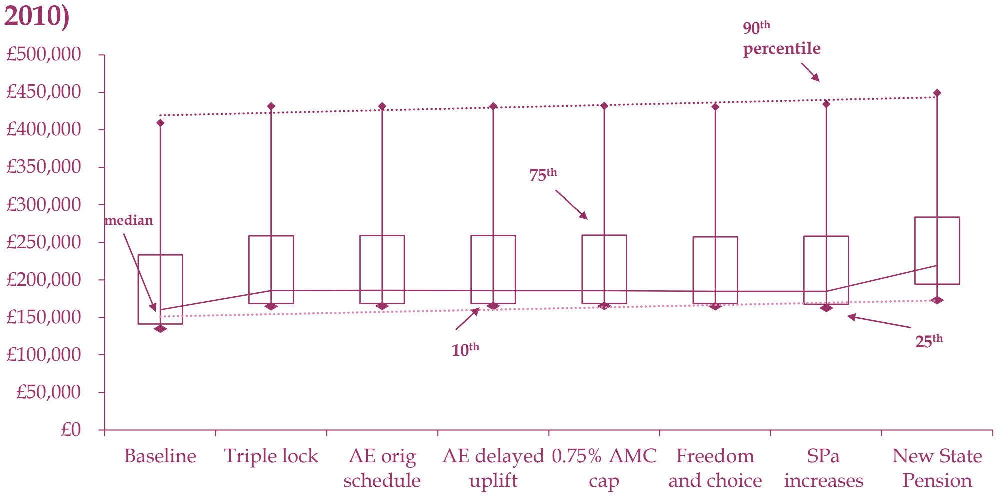


Table 1: Distribution of retirement incomes for all individuals aged between 50 and SPa in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£134,700	£141,200	£160,300	£233,300	£409,300
Triple lock	£164,600	£168,600	£185,500	£258,800	£431,700
AE (orig)	£165,300	£168,600	£185,900	£259,300	£431,700
AE (delayed)	£165,300	£168,600	£185,700	£259,300	£431,700
0.75% cap	£165,300	£168,600	£185,700	£259,800	£431,900
Freedom and choice	£164,600	£168,600	£184,800	£257,500	£430,800
SPa increases	£162,400	£167,500	£184,600	£258,400	£434,400
nSP (final)	£173,000	£194,500	£219,200	£283,700	£449,000
Absolute increase due to changes	**£38,300**	**£53,300**	**£58,900**	**£50,400**	**£39,700**
Percentage change from baseline	**28%**	**38%**	**37%**	**22%**	**10%**

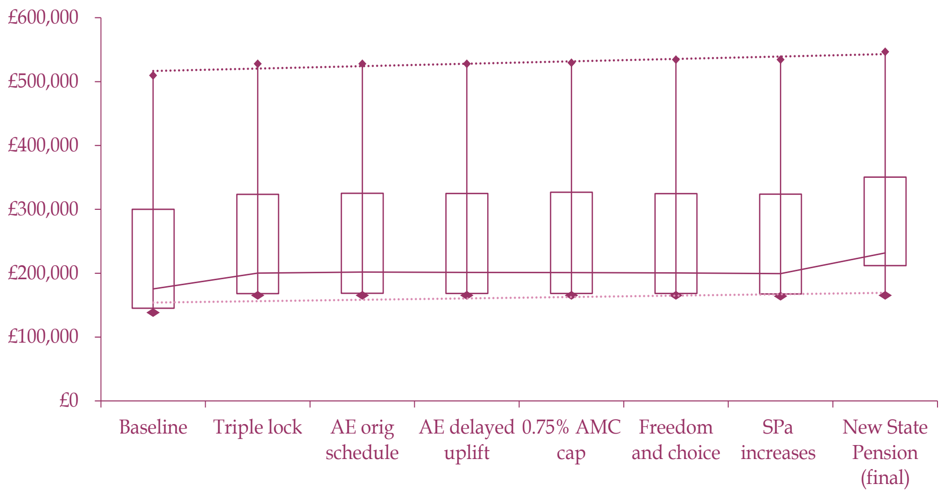
[138] PPI Dynamic Model

Men continue to have higher retirement incomes than women, but women have experienced greater increases due to the pension landscape changes that took place between 2010 and 2016

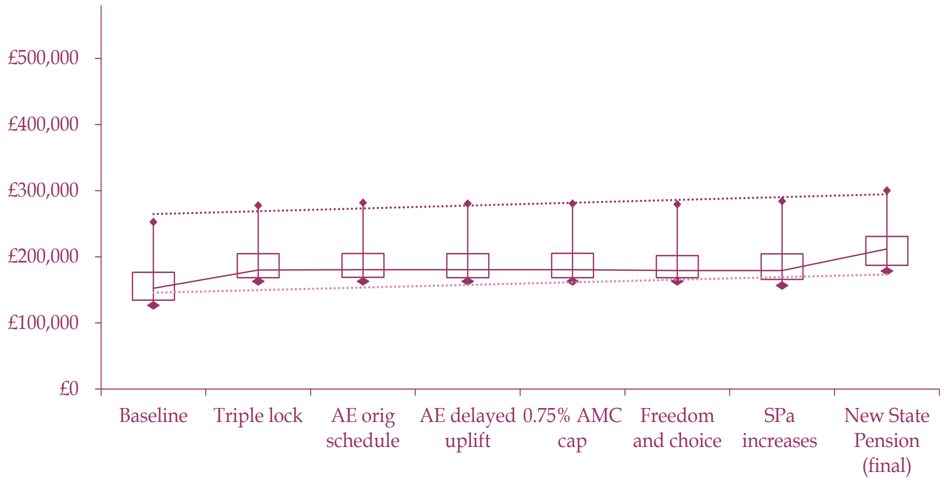
- Men on average continue to have higher retirement incomes than women (Box 16 and Table 2).
- The range of retirement incomes for women is narrower at both the baseline and the final position.
- Women have experienced greater increases to their retirement incomes than men (Box 16 and Table 3). The 10th percentile value for women has increased by **41%** (**20%** for men) and the 90th percentile value has increased by **19%** (**7%** for men).
- Women in particular benefit from the introduction of the new State Pension.
- Those women with incomes at the 10th percentile are not affected by the introduction of automatic enrolment because their incomes are below the eligibility threshold.

Box 16: Distribution of retirement incomes for men and women respectively[139]

Men continue to have a wide range of retirement incomes



Women have experienced greater increases to their pension incomes than men but still have lower incomes overall



[139] PPI Dynamic Model

Table 2: Distribution of retirement incomes for men aged between 50 and SPa in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£138,300	£145,100	£175,400	£300,000	£509,800
Triple lock	£165,300	£168,000	£200,300	£323,600	£527,800
AE (orig)	£165,300	£168,500	£201,700	£325,100	£527,800
AE (delayed)	£165,300	£168,300	£201,200	£324,800	£527,800
0.75% AMC cap	£165,300	£168,300	£200,900	£326,800	£529,500
Freedom and choice	£165,300	£168,300	£200,500	£324,600	£534,500
SPa increases	£163,900	£167,500	£199,400	£323,800	£534,500
nSP (final)	£165,300	£211,900	£231,800	£350,400	£546,800
Absolute increase due to changes	**£27,000**	**£66,800**	**£56,400**	**£50,400**	**£37,000**
Percentage change from baseline	**20%**	**46%**	**32%**	**17%**	**7%**

Table 3: Distribution of retirement incomes for women aged between 50 and SPa in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£126,800	£134,700	£152,500	£176,600	£252,800
Triple lock	£163,000	£168,600	£180,100	£204,900	£277,800
AE (orig)	£163,000	£169,000	£180,500	£205,200	£281,800
AE (delayed)	£163,000	£168,600	£180,500	£204,900	£280,600
0.75% AMC cap	£163,000	£168,600	£180,500	£205,400	£280,700
Freedom and choice	£163,000	£168,600	£179,300	£202,000	£279,600
SPa increases	£156,800	£165,800	£179,300	£204,500	£284,300
nSP (final)	£178,600	£187,300	£211,900	£230,800	£300,400
Absolute increase due to changes	**£51,800**	**£52,600**	**£59,400**	**£54,200**	**£47,600**
Percentage change from baseline	**41%**	**39%**	**30%**	**31%**	**19%**

Individuals aged 50 to 54 have lower baseline and final retirement incomes, and a narrower range of pension incomes than those aged 55 to 64

- For those aged 50 to 54 in 2010, the range of pension incomes reduces over time due to the triple lock (Chart 37 and Table 4). They experience greater increases than the other groups modelled here because they benefit from the effect of compound indexation from the triple lock which is applied to their

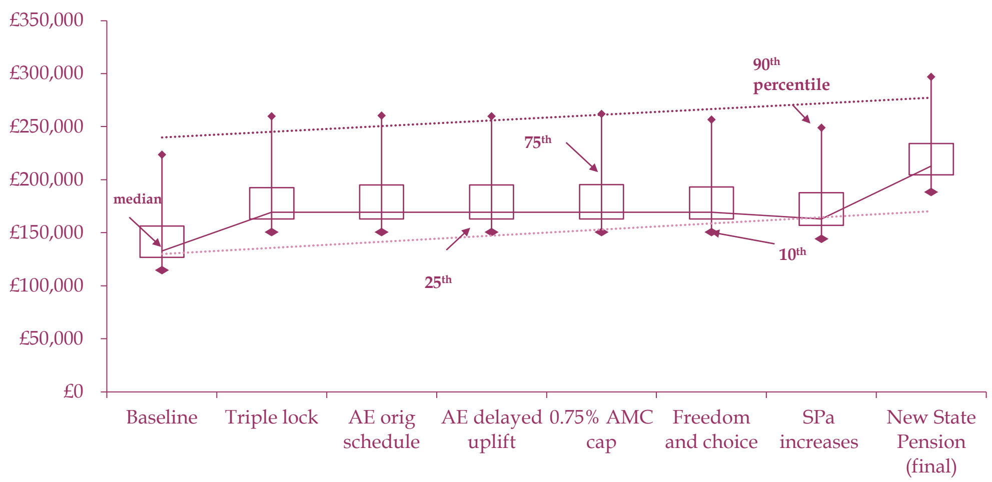
State Pension over a longer period of time. This increases the lower percentile values of total retirement incomes to a greater degree, in percentage terms, than the higher percentile values.

- This group also receives a boost in retirement income from the introduction of the new State Pension. This is because these individuals benefit from a comparison of the new State Pension and what they would have received under the previous system, taking forward the higher amount.
- Those individuals with incomes at the 10th percentile are not affected by the introduction of automatic enrolment because their incomes are below the eligibility threshold.

Chart 37[140]

The triple-lock and new State Pension increase incomes for those aged 50 to 54 in 2010

Distribution of post-retirement incomes for those aged 50 to 54 in 2010



[140] PPI Dynamic Model

Table 4: Distribution of retirement incomes for individuals aged 50-54 in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£114,800	£126,700	£132,800	£156,300	£223,500
Triple lock	£150,600	£163,000	£169,200	£192,600	£259,800
AE (orig)	£150,600	£163,000	£169,200	£195,200	£260,400
AE (delayed)	£150,600	£163,000	£169,200	£195,200	£259,800
0.75% AMC cap	£150,600	£163,000	£169,200	£195,400	£262,000
Freedom and choice	£150,600	£163,000	£169,200	£194,400	£257,200
SPa increases	£144,300	£156,800	£163,000	£188,200	£250,600
nSP (final)	£188,300	£204,600	£212,700	£235,400	£297,800
Absolute increase due to changes	**£73,500**	**£77,900**	**£79,900**	**£79,100**	**£74,300**
Percentage change from baseline	**64%**	**61%**	**60%**	**51%**	**33%**

Those aged between 55 and SPa in 2010 are affected to a lesser extent by changes such as the triple lock and increases to SPa than those aged 50 to 54

- Individuals aged 55 to 59 (Chart 38 and Table 5) and 60 to 64 in 2010 (Chart 39 and Table 6) are affected to a lesser extent by measures such as the triple lock.
- As a group those aged 60 to 64 have higher incomes at the outset, possibly as a result of greater numbers of individuals having DB pensions and the fact that they receive the State Pension for a greater number of years. In addition, the modelling approach taken in this report means that the group aged 60 to 64 includes men only.[141] However, they experience lower increases to their retirement incomes as a result of the changes to the pensions landscape. This is because there is less time for the compounded impact of triple lock indexation to accrue.
- Those aged 55 to 64 are affected to a lesser extent by the increases to SPa than those aged 50 to 54.

The group aged 60 to 64 in 2010 includes men only and are unaffected by the new State Pension as the majority reach SPa prior to April 2016.

[141] Men and women of working age in 2010 are included in this analysis. Women aged over 60 will have already reached SPa and are, therefore, not included.

Chart 38[142]

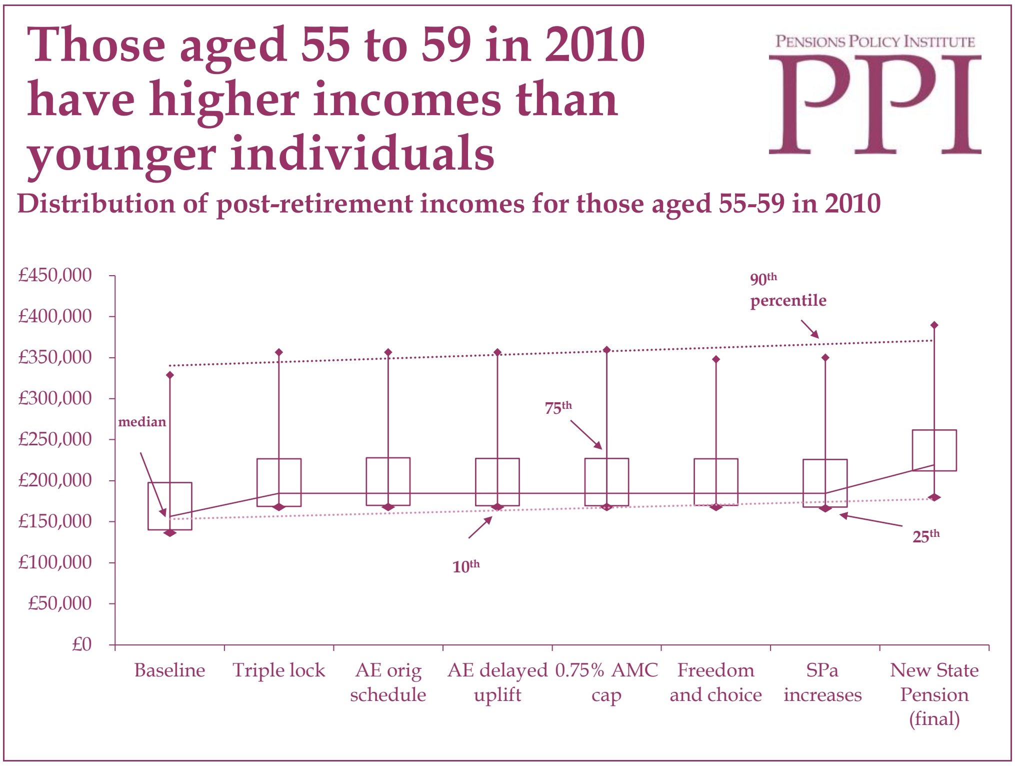


Table 5: Distribution of retirement incomes for individuals aged 55-59 in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£136,400	£140,000	£156,300	£197,900	£328,700
Triple lock	£168,000	£168,600	£184,600	£226,700	£356,600
AE (orig)	£168,000	£170,100	£184,600	£227,800	£356,600
AE (delayed)	£168,000	£169,400	£184,600	£227,000	£356,600
0.75% AMC cap	£168,000	£169,400	£184,600	£227,300	£359,200
Pension freedoms	£168,000	£169,800	£184,600	£226,700	£347,800
SPA increases	£166,400	£168,000	£184,600	£226,000	£349,800
nSP (final)	£179,600	£211,900	£219,200	£261,800	£389,700
Absolute increase due to changes	**£43,300**	**£71,900**	**£62,900**	**£63,900**	**£61,000**
Percentage change from baseline	**32%**	**51%**	**40%**	**32%**	**19%**

[142] PPI Dynamic Model

Chart 39[143]

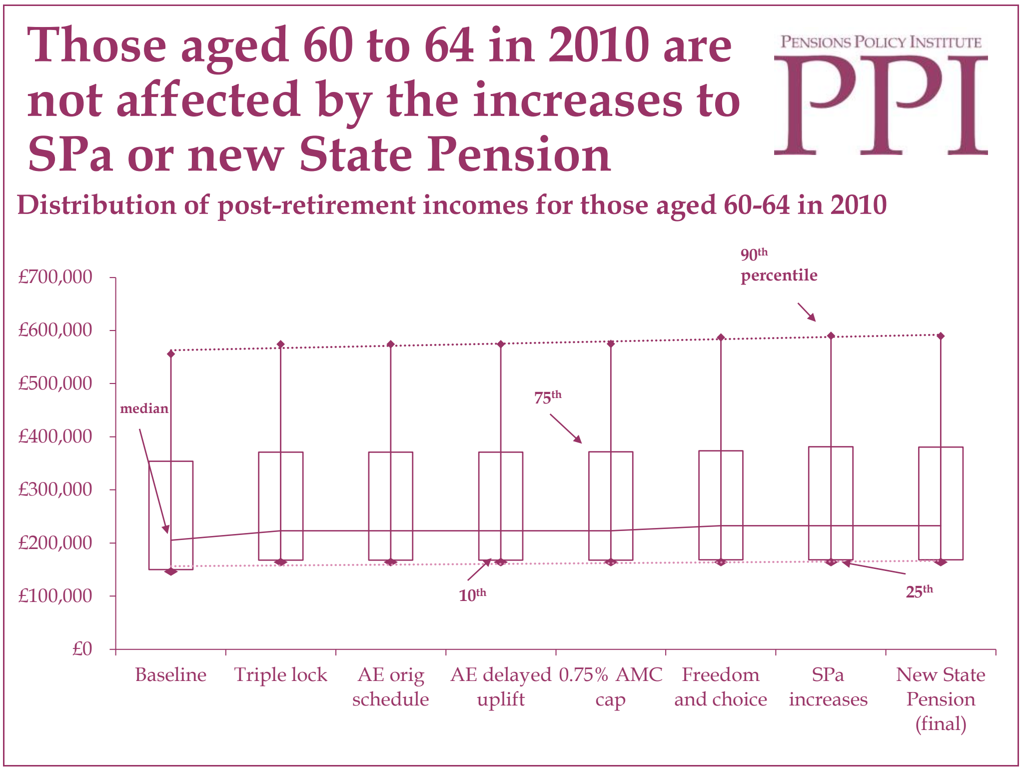


Table 6: Distribution of retirement incomes for individuals aged 60-64 in 2010 at the baseline and further to subsequent changes to the pensions landscape

	10th percentile	25th percentile	Median	75th percentile	90th percentile
Baseline	£146,400	£150,100	£205,300	£361,500	£562,700
Triple lock	£163,900	£167,800	£222,800	£380,700	£583,800
AE (orig)	£163,900	£167,800	£222,800	£380,700	£583,800
AE (delayed)	£163,900	£167,800	£222,800	£380,700	£583,800
0.75% AMC cap	£163,900	£167,800	£222,900	£381,600	£583,800
Freedom and choice	£163,900	£168,700	£232,400	£395,200	£597,700
SPa increases	£163,900	£168,700	£232,400	£395,300	£597,700
nSP (final)	£163,900	£168,700	£232,400	£395,300	£597,700
Absolute increase due to changes	**£17,500**	**£18,600**	**£27,100**	**£33,800**	**£35,000**
Percentage change from baseline	**12%**	**12%**	**13%**	**9%**	**6%**

143 PPI Dynamic Model

Table 7 summarises the starting points, final retirement incomes and percentage increases for each age cohort. While the older cohorts have higher baseline incomes, the younger cohorts are projected to experience greater increases to their retirement incomes.

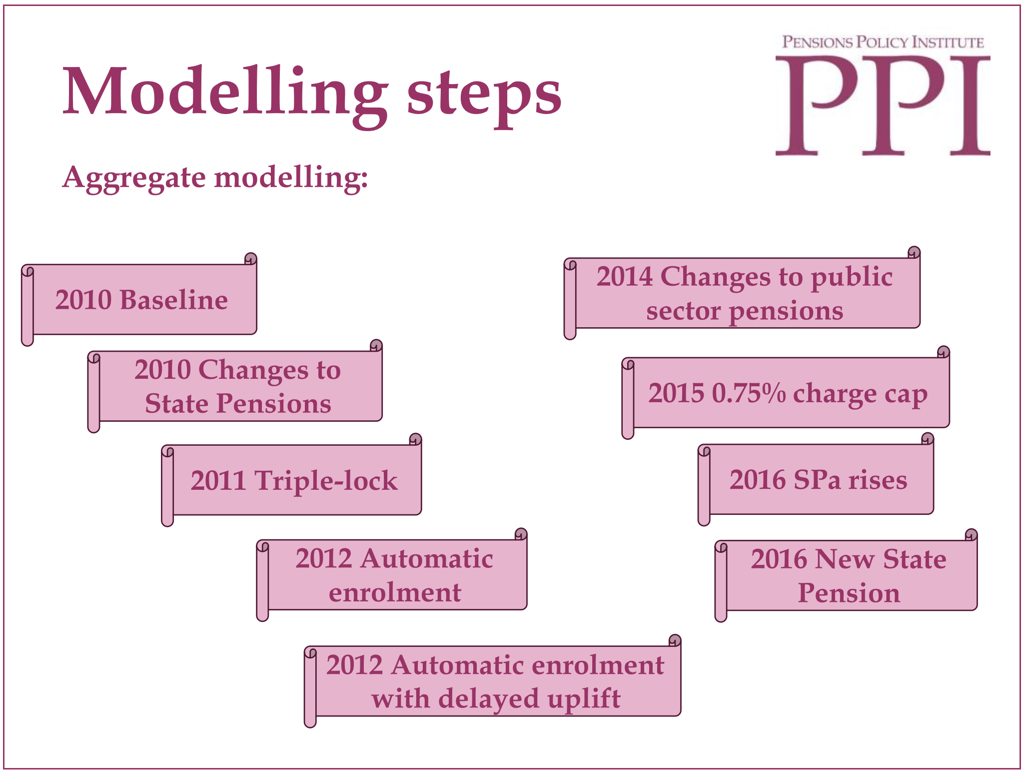
Table 7: Baseline line and final incomes by age cohort

Age in 2010	50 to 54	55 to 59	60 to 64
Baseline income	£132,800	£156,300	£205,300
Final income	£212,700	£219,200	£232,400
Absolute increase	£79,900	£62,900	£27,100
Percentage increase	60%	40%	13%

Estimating the cumulative cost or savings from the pension landscape changes

This part of the report uses the PPI aggregate model to estimate the cumulative effect of policy changes on costs and savings to the state as a proportion of Gross Domestic Product (GDP) as a result of the steps shown in Chart 40.

Chart 40[144]



[144] The 2014 changes to public sector pensions also include the public sector reforms from 2006-08, the 2011 switch in indexation from RPI to CPI, and increase in employee contribution rates.

The modelling results are driven by assumptions as well as by data, and as a consequence, the analysis does not provide detailed specific forecasts, but rather projections of broad orders of magnitude under different scenarios. This analysis does not take into account the 2016 changes to allowances.

By 2016, neither the triple lock nor State Pension age changes have a significant impact on the proportion of GDP spent on state pensions

The proportion of GDP spent on state pensions remained fairly steady at **4.8%** between 2010 and 2016.[145]

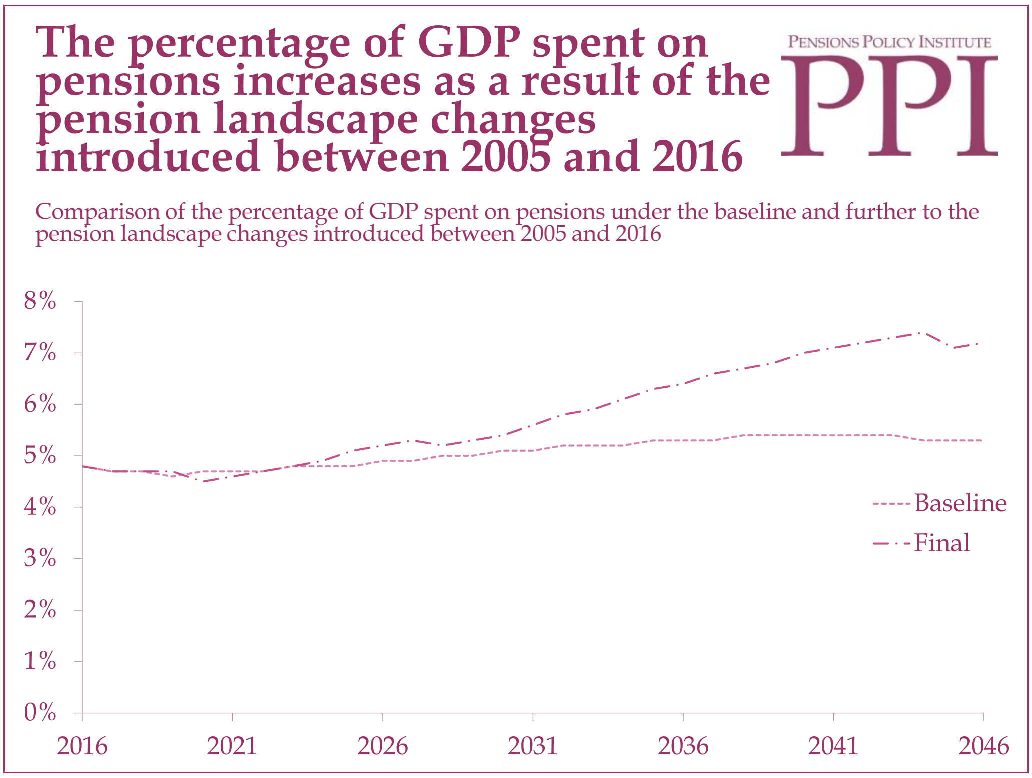
The changes that might have been expected to make a difference include the triple lock and the increases to SPa (introduced in 2011). However, the triple lock was only introduced in 2011 and has not had a lot of time for compound indexation to increase the value of the State Pension above earnings.

As a result of the changes to the pensions landscape between 2010 and 2016 the proportion of GDP spent on pensions increases

Under the baseline scenario, which assumes that the pension landscape changes are not introduced, the proportion of GDP spent on pensions is **4.8%** by 2046 (Chart 41). In contrast, this amount reaches **7.4%** where the pension landscape changes are introduced.

[145] State pensions include the Basic State Pension, Additional State Pension, the new State Pension and other pensioner benefits such as the winter fuel allowance.

Chart 41[146]



There is one point during this period at which the final cost is lower than the baseline cost in 2021. This is due to the effect of the increases in SPa to 66 that take place by 2020.

In 2046, both the triple lock and the 2011 SPa increases have had an impact on the proportion of GDP spent on state pensions

Between 2016 and 2046 the proportion of GDP spent on state pensions increased from 5.3% to 7.2% (Chart 42). The main policy changes that have affected this include the 2011 SPa increases and the triple lock.

Prior to these changes, state pensions were uprated by the Retail Prices Index (RPI). Further to the introduction of the triple lock, the basic State Pension and the new State Pension were uprated by an amount higher than increases in earnings in some years, meaning that a higher proportion of GDP is spent on state pensions. The fact that this indexation is compounded over the years magnifies this effect. Therefore, the introduction of the triple lock increases the proportion of GDP spent on state pensions by 2.3%.

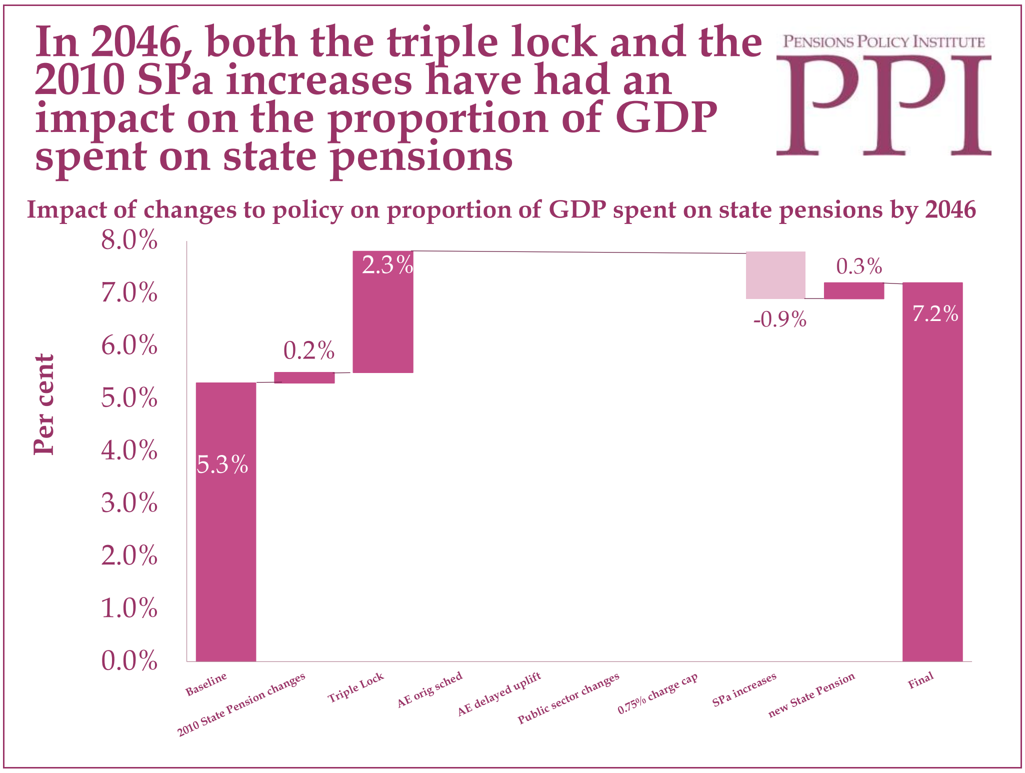
[146] PPI Aggregate Model

However, some of this increase would still occur if the triple lock were withdrawn and the State Pension were increased by earnings, as earnings increases are typically higher than the RPI.

Between 2016 and 2046 the SPa will increase from age 65 to age 67. As people receive the State Pension later, this has decreased the proportion of GDP spent on state pensions by **0.9%**. This represents a decrease relative to the baseline, as individuals receive their State Pension later. However, both the baseline and the analysis for the changes assume that individuals have the same life expectancy.

Finally, the introduction of the new State Pension is subsequently projected to increase the amount of GDP spent on State Pensions by **0.3%** with a final cost of **7.2%**.

Chart 42[147]



[147] PPI Aggregate Model

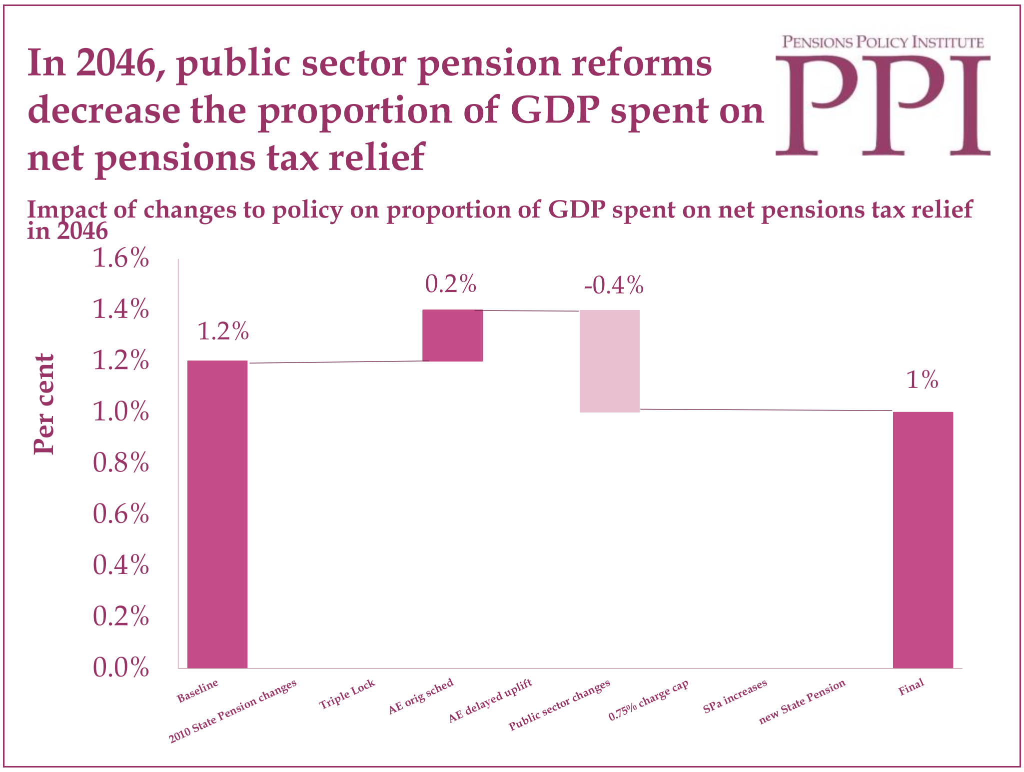
In 2046, automatic enrolment increases net pensions tax relief, but this is more than offset by decreases due to public sector pension reforms

Tax relief works as follows:

- Tax relief is given on individual and employer pension contributions and on returns on invested funds;
- Tax is paid on individuals' income taken from their pension savings in retirement (minus 25% tax-free lump sum);
- The cost of tax relief minus the tax received from pension income equals **net tax relief.**

By 2016 changes such as automatic enrolment and public sector pension reforms have not yet had an impact on the proportion of GDP spent on net tax relief. However, by 2046, both automatic enrolment and public sector reforms have had an impact (Chart 43). However, this modelling does not reflect the 2016 changes to tax allowances.

Chart 43[148]



Between 2005 and 2046 the proportion of GDP spent on net tax relief is projected to decrease from **1.2%** under the baseline to **1%** once the impact of the pension landscape change has been factored in. Changes are also projected to the distribution of pensions tax relief. The introduction of automatic enrolment

[148] PPI Aggregate Model

increases the proportion of GDP spent on net tax relief from **1.2%** to **1.4%** by 2046. This is because a new group of automatically enrolled individuals is making pension contributions and receiving tax relief on these.

In turn, the public sector reforms subsequently decreased net pensions tax relief from **1.4%** to **1%**. Under Defined Benefit schemes, pensions tax relief is provided on the deemed employer contribution (which is calculated with reference to the value of the benefits received in retirement by the employee). Moves to career-average schemes and higher pension ages for public sector pension schemes represent a reduction in the value of the benefits in retirement and, as a result, a decrease in the deemed contribution. In turn, this decreases the amount of tax relief given on these contributions.

These developments mean that automatically enrolled individuals are receiving a larger proportion and public sector individuals are receiving a smaller proportion of pensions tax relief than in the baseline.

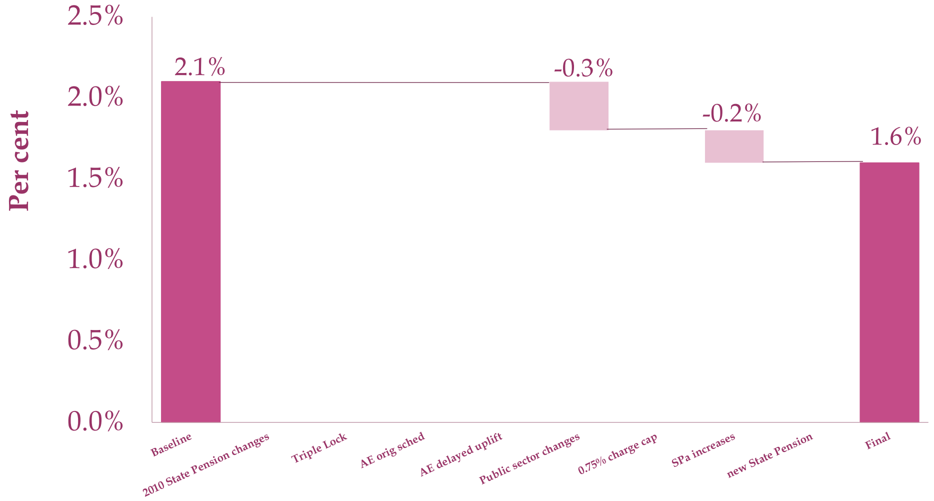
The proportion of GDP spent on public sector pensions decreases further to the changes to public sector pension schemes

From 2014 onwards, reforms to DB public sector pension schemes were implemented, typically moving members from final salary to career-average accrual arrangements and increasing members' normal pension ages. By 2046 these have decreased the proportion of GDP spent on public sector pension schemes from **2.1%** under the baseline to **1.6%** once the impact of the pension landscape changes has been factored in (Chart 44).

Chart 44[149]

In 2046, public sector pension reforms decrease the proportion of GDP spent on public sector pensions

Impact of changes to policy on proportion of GDP spent on public sector pension in 2046



The proportion of GDP spent on Pension Credit decreases further to the implementation of the triple lock and new State Pension

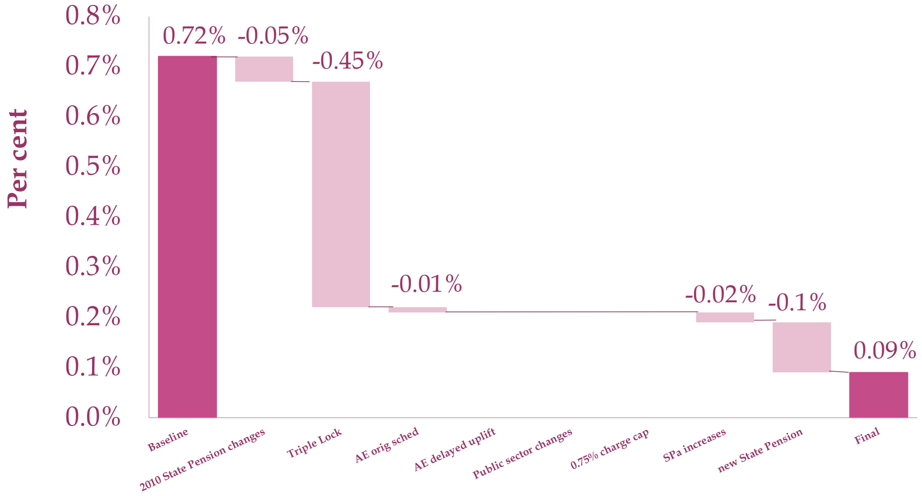
Pension Credit is a means-tested benefit that is paid if other sources of income do not reach a certain level. In 2016 this amount is £155.50 for single people and £237.55 for couples. As both the triple lock and the new State Pension increase the level of State Pension received at a level above Guarantee Credit, these changes have decreased the amount spent on Guarantee Credit. By 2046 this has decreased from **0.72%** under the baseline to **0.09%** once the impact of the pension landscape changes has been factored in.

[149] PPI Aggregate Model

Chart 45[150]

In 2046, the triple lock and new State Pension decrease the proportion of GDP spent on Pension Credit

Impact of changes to policy on proportion of GDP spent on Pension Credit



[150] PPI Distributional Model

Chapter four: Implications for future policy

This chapter draws together the findings of this report and considers the implications for future pension and related policy areas.

Since the 2003 report, the pensions policy and market landscape has been transformed. Some of the trends identified in the previous report, in particular rising pensioner poverty and falling provision and participation in private pensions, have been reversed. Others however, such as the prospects for future retirement incomes, remain uncertain and some segments of society have limited access to low-cost workplace pensions.

1.6 million pensioners are still living in poverty despite many pensioners being better off than previous generations

The policy environment since 2003 has generally improved the incomes of today's pensioners, although different policies have had a differential effect on individuals.

The triple lock, which has been in effect since 2010, combined with a new cohort of younger pensioners with greater, mainly DB, private pension wealth, has led to several years of real increases in average pensioner incomes. Furthermore, the proportion of pensioner units living in poverty has fallen from **25%** to **13%** over the period (well down on its peak of 39% in 1989) and the gender inequalities that prevailed in 2003 have narrowed.

However, an estimated 1.6 million pensioner households continue to live in relative poverty: more commonly single women and older couples.

An important factor in alleviating pensioner poverty in the early years of retirement has been the increased incidence of younger members of pensioner households (not always the pensioner themselves) continuing to work, driven in part by the increase in the State Pension age (SPa). However, income from employment is not typically sustained in the later years of retirement where incomes are lower, particularly beyond age 75.

One factor working against further improvements in incomes for some pensioners is the low interest environment which has reduced, and is expected to continue to hold down, incomes from cash savings.

Both the triple lock and automatic enrolment could significantly increase the level of people's retirement incomes

The immediate impact of policy reforms since 2003 on the working age population can be seen most in the effect of automatic enrolment on participation levels, and the impact of changes to the State Pension (both age and level). For those nearer SPa the triple lock has the most immediate effect whereas younger individuals may also see significant effects from automatic enrolment but with more uncertainty about the timing and level of the State Pension in the future.

Automatic enrolment has reversed the reduction of membership in workplace pensions but some groups remain excluded

In 1967, at the peak of DB scheme participation, **two-thirds of men** and **under one third of women employees** (around **12.2 million**) were members of workplace pension schemes.[151] By 2003, while female membership had risen, male participation had fallen. DC was becoming more popular and DB schemes closing. The proportion fell to **below 50%** in 2012 but has since risen to **64%** (around **18 million**) in 2015 and is expected to rise further as the long tail of smaller companies enrolling their employees continues to roll out[152]

It has recently been estimated that automatic enrolment has increased the average total contribution by **1.05%** of earnings with employer contributions being increased by **0.6%** and employee contributions by **0.5%**.[153]

The rise is a consequence of the successes of automatic enrolment, one of the central recommendations of the Pensions Commission. Employer compliance has been high so far while the overall opt-out rate for employees being automatically enrolled has remained low. The implementation of automatic enrolment has also contributed to a reduction in the gender gap in pension provision and has brought many younger savers into workplace pensions.

Two significant working groups have less access to the benefits of automatic enrolment: those with earnings below the £10,000 trigger point and the self-employed. The latter group in particular, has low participation rates in pension savings and more limited access to low cost pensions, although some of the Master Trusts offer access to the self-employed. However, a significant minority of ineligible employees are opting in, there has been an increase of **28 percentage points** in workplace membership among those earning below £10,000 per year.[154]

Another important development in the pensions' landscape has been the lower average charges being levied on savers in DC workplace pensions brought about through regulations capping charges and competitive pressures from the large Master Trusts. Employers also now have a much wider choice of pension provision, ranging from establishing their own occupational scheme to the GPP and Master Trust markets.

151 GAD (1991)
152 ONS (2015)
153 IFS (2016)
154 IFS (2016)

Despite the triple lock and automatic enrolment, cohorts currently approaching retirement may have lower levels of pensions income than those recently retired, although typically pensioners are better off than they have been over the last few decades

- The policy environment since 2003 has generally improved the incomes of today's pensioners; although different policies have had a differential effect on individuals.
- Individuals aged 50 to 54 in 2010 have lower baseline and final retirement incomes, and a narrower range of pension incomes than those aged 55 to 64. This may be because older individuals receive higher incomes from Defined Benefit pensions and are projected to receive the State Pension for a greater number of years.
- Women aged over 50 have experienced greater increases to their retirement incomes than men. The 10th percentile value for women has increased by **41%** (**20%** for men) and the 90th percentile value has increased by **19%** (**7%** for men).
- Women in particular benefit from the introduction of the new State Pension.
- Reforms such as the introduction of the new State Pension, in particular, are projected to improve incomes for individuals such as women who have, in the past, had lower retirement incomes.
- The prospects for most of the hypothetical individuals modelled improved as a result of the policy interventions implemented since the 2003 report. However, some individuals may be worse off than they would have been, particularly those in public sector schemes and very close to State Pension age (SPa).

It remains uncertain that future retirement incomes will be in line with those for recent retirees

While the number and proportion of employees contributing to a pension has increased as a result of pension reforms, it remains much less certain that future retirement incomes will be as high as they are for recent retirees. The cohort analysis conducted as part of this report suggests that there are clear prospects for average retirement incomes of pensioners to fall as the cohorts closest to State Pension age retire over the next 10 years. It is even less clear whether that trend is likely to continue. Several factors contribute to this uncertainty:

- Any future changes to the triple lock which may reduce increases to the new State Pension and basic State Pension beyond 2020. For many DC savers, the value of the State Pension remains the most significant part of their future retirement income;
- The further shift, in the private sector, from DB to DC pension provision;
- The relatively low levels of employer and employee contributions to DC plans, albeit that the average will increase further as the higher automatic enrolment rates bed in from 2018;
- The effect on participation / opt-out rates of increases to automatic enrolment minimum contributions;

- Uncertain investment returns from all asset classes as the world economy continues to recover from the global financial crisis and the UK tackles the economic impact of exit from the European Union;
- Employer responses to uncertain or difficult economic conditions as the economic impact of exit from the European Union becomes clearer;
- The way in which individuals respond to the new freedoms introduced for DC pensions in 2015 and the ability to transfer from DB to DC pre-retirement;
- The way in which schemes and providers develop new retirement income options and products, any default funds that may emerge and the cost of managing such options;
- The limitations on higher earners especially those in DB schemes accruing benefits beyond the Lifetime and Annual Allowances may affect not only their retirement income but also the schemes themselves in terms of cash flow and distribution of the costs of running the scheme;
- How individuals respond to alternative savings products such as the Lifetime ISA and the consequences for pension saving. This will to a large extent depend on how the Lifetime ISA is implemented, e.g. how it sits in terms of automatic enrolment, and how individuals react to this.

Furthermore, with on-going changes in longevity and the current review of the SPa, future generations of retirees face the additional uncertainty of when their State Pension will begin to be paid, although most should receive at least ten years notice.

Government spending on state pensions is set to rise if the triple lock is maintained but the cost of tax relief and tax revenues from pension in payment are less clear

Overall, the analysis of Government spending on pensions in the form of state pensions, tax relief, tax receipts from pensioners and the cost of public sector pensions presents a complex picture.

The full effect of the triple lock is likely to be felt over the next twenty years, although there remains uncertainty about which element of the triple lock will dominate going forward and what will happen to GDP.

PPI analysis suggests that the reforms put in place since 2005 have generally increased the anticipated cost of the state pension from **5.3%** to **7.2%** of GDP by 2046, due to upward pressure from the triple lock which is offset to a limited extent by increases to SPa.

However, with or without the reforms, the cost of the State Pension would be likely to increase due to the growing number of individuals above SPa.[155]

[155] PPI (2016)

Although automatic enrolment has boosted the number of individuals contributing to a pension, the cost of tax relief has been contained since 2003, largely as a result of changes to allowances. Looking ahead, the increased cost of tax relief as a result of automatic enrolment is offset by changes in public sector pensions which reduce the tax relief bill. By 2046, the cost of tax relief is expected to be unaffected in net terms by the reforms since 2005.

Tax receipts from pensioners have risen during the period since 2003, although this is largely a function of much earlier provision and reforms to the pension sector than by reforms during the period under review in this report. All other things being equal, rising numbers of pensioners should give rise to ever increasing tax revenues. Some short term boost could be given by individuals cashing in their DC pensions and accelerating, and potentially increasing, their tax bill. However, in the longer term it is much less clear whether future cohorts of pensioners will be retiring with as much taxable retirement income as the recently retired which could ultimately deflate tax revenues.

The proportion of GDP spent on public sector pensions is projected to decrease by **0.5%** by 2046. As the Government described these reforms as a 'settlement for a generation'[156] there may be limitations to the extent of future savings from these.

In the same year, the amount spent on Pension Credit is projected to have decreased from **0.72%** to **0.09%** GDP. This is because both the triple lock and the new State Pension increase the level of income received by those people who would otherwise receive Guarantee Credit.

There is still discussion around future changes to pensions tax relief
With the majority of tax relief going to higher rate taxpayers there remains speculation around whether the Chancellor will introduce any changes to pensions tax relief in future Budgets.

The pensions landscape implies clear priorities for the direction of travel policy
In many respects, the policy reforms of the past 13 years appear to have addressed many of the concerns raised in the 2003 PPI report. This is in no small part due to the focus on the principles set down by the Pensions Commission which called for an understanding of what pension, the state, the individual and their employers respectively need to provide, as well as the development of incentives to save that are beneficial and will remain relatively stable over time. Continuing to focus on these principles, and in particular, ensuring that there is no reversal to the progress being made through automatic enrolment, will be important.

[156] https://www.gov.uk/government/news/government-sets-out-its-offer-on-public-service-pensions

However, this research cannot be definitive due to the large around of uncertainty surrounding the pensions landscape, in particular the way in which individuals respond to reforms.

The research has highlighted that future cohorts risk having lower incomes than those individuals who have recently retired. If policy-makers wish to investigate further possible ways to help these groups, the following may be considered:

- Evaluating whether the current projected levels of automatic enrolment contributions are sufficient to deliver adequate retirement incomes for those future generations more dependent on DC;
- Monitoring the behaviour of individuals taking advantage of the new pension freedoms, potentially using data from a collective panel, and the effect on incomes in retirement and pensioner poverty and the interaction with means-tested benefits;
- Monitoring the behaviour of pension schemes and providers in delivering good value mass market solutions, the availability of those solutions to consumers and the interaction between drawdown and regulated advice;
- Monitoring the impact of publicly financed retirement guidance and the availability, suitability and affordability of regulated retirement advice;
- Monitoring and evaluation of the impact of the Lifetime Individual Savings Account (LISA) on pension saving.

The pension landscape in place from 2003 to 2016 has resulted in significant changes to the direction of travel for pensions, with a move towards the reduction of inequalities. However, concerns around the adequacy of retirement incomes and the long-term avoidance of pensioner poverty remain.

Annex A: Technical Annex

This project has used a number of the models within the PPI modelling suite. Primarily, the Individual Model to project the impact of policy changes on stylistic individuals, the Aggregate model to project the impact of policy changes on overall spending, and the Dynamic model to project the distributional impact of policy changes on individuals aged over 50.

The PPI's key economic assumptions, which are used in all the models are sourced from the Office for Budget Responsibility (OBR). The Economic and Fiscal Outlook (EFO) for Budget 2016 is used for the short term assumptions, while assumed long term rates come from the Fiscal Sustainability Report (FSR) of June 2015.

The main economic assumptions used in the modelling are listed below:

- Consumer Prices Index is assumed to increase in the short term in line with the EFO, the long term assumption is 2.0% from the FSR.
- Growth in earnings is assumed to increase in the short term in line with the EFO, the long term assumption is 4.5% from the FSR.
- The triple lock assumptions are calculated based on these in the short term and the modelling uses a long run triple lock assumption of 4.9% in line with the FSR.

Other assumptions and behaviours assumed throughout the PPI modelling unless a different approach is appropriate to the given policy scenario being modelled.

- The new State Pension is assumed to increase by the triple lock throughout the projection period.
- Automatic enrolment thresholds are assumed to increase in line with earnings.
- A 6% return is assumed on an individual's pension pot.
- An Annual Management Charge of 1% is assumed to apply to existing DC pension arrangements and of 0.5% on master-trust schemes. The 1% charge is reduced to 0.75% for the policy scenarios where the charge cap is in force.
- Individuals are assumed to take a tax free cash lump sum of 25% of their pension when they retire, they then use their remaining fund to either purchase an annuity, use drawdown, or some combination.
- When people take an annuity, they receive a level income of approximately 5% equivalent their remaining fund for life after retirement.
- When people drawdown their pension, they are assumed to take a cash amount equal to 4% of their fund in the first year, and each subsequent year they take the same cash amount but increased in line with the CPI.
- Individual and Dynamic Modelling use income up to age 90 as a means for comparison.

The analysis in this report compares outcomes of various policies that have been introduced up to 2016. The policies are set out in detail in the body of the report, but for completeness they are presented here in a shortened form. The reforms are considered in the order in which they were implemented.

1. A baseline scenario
    - State pension policy pre-2007 changes
    - Old qualification criteria for full bSP - 44 years for men and 39 for women qualification for basic State Pension
    - Building up state Pension Credits based on old system
    - S2P as introduced in 2002
    - No automatic enrolment
    - Everyone buys annuity
    - Public sector pensions are Final Salary schemes and are uprated with changes in the RPI
2. A-day tax band changes
    - Lifetime Allowance is introduced at £1.8m
    - Annual Allowance is introduced at £225k a year
3. Revisions to State Pension implemented in 2010
    - Reduction in total number of qualifying years required for a full basic State Pension to 30 years
    - New weekly credit system
    - Additional pension salary bands to be fixed in order to move to a flat rate additional pension by 2030
4. Basic State Pension to be uprated by triple lock, the maximum of growth in CPI, or average earnings or by 2.5%
5. Automatic enrolment implemented with contribution increases in line with the original legislation
6. Automatic enrolment with a delay in uplift in contributions following Coalition review
7. Public Service Pension changes to link increases to CPI and implementing Career Average Revalued Earnings pension schemes
8. 0.75% charge cap on default fund
9. 2015 changes to Annual Allowance and Lifetime Allowance
10. Freedom & Choice changes allowing pensions to be taken without annuitisation
11. Future increases to State Pension age, including increasing to 66 by 2020, to age 67 by 2028 and to age 68 by 2046
12. New State Pension introduced as a single tier pension for people reaching State Pension age from 6 April 2016. For these people savings credit and additional pension are also abolished

Individual modelling

The hypothetical individual examples were projected using the PPI's Individual Model. It calculates the future state and private pension incomes of hypothetical individuals on the basis of given assumptions.

The model

The PPI's Individual Model produces illustrative projections of an individual's future income in retirement. It uses flexible income parameters about the individual's work and savings behaviour for each year of their working life in order to build up a projection of their pension savings and State Pension accrual at retirement.

The model then allows the individual to annuitise or draw down their pension at retirement which is used to project private pension income, which along with any post retirement earnings and State Pension can inform eligibility to means tested benefits such as pension credit, and any tax payable. Cashflows from all of these streams of income are then be projected for each year for the rest of the individual's life.

The individuals

The individuals modelled present a range of ages and earnings levels for each gender. Saving behaviour for private pension accumulation is considered, as well as the behaviour at retirement.

Chart A1 sets out the twenty five individuals that were modelled.

These are not intended to be exhaustive or representative. They are intended to provide illustrative examples of how the changes in policy can affect individuals, sometimes in differing ways.

Chart A1

Hypothetical individuals

PENSIONS POLICY INSTITUTE
PPI

	Male			Female		
	Age 35	Age 45	Age 60	Age 35	Age 45	Age 62
Low income private sector	1. No private pension (baseline)	2. No private pension (baseline)	3. DB pension (early retirement)	13. No private pension (baseline) erratic earning history	14. No private pension (baseline) early retirement	15. No private pension (baseline)
Median income public sector	4. DB pension	5. DB pension erratic earning history	6. DB pension (retires at age 60)	16. DB pension	17. DB pension	18. DB pension
Median income private sector	7. DC pension	8. DB and DC pension	9. DC pension	19. No private pension (baseline)	20. No private pension (baseline)	21. DC pension
High income private sector	10. DC pension	11. DB and DC pension	12. DB pension (early retirement)	22. DC pension	23. DC pension	24. DB and DC pension
Very high income private sector					25. DC pension, high contributions	

Aggregate modelling

Overview of Aggregate Modelling of State and Private Pensions

The PPI Aggregate Model links changes in the UK population, the labour market and economic assumptions to project forward state and private pension cashflows. Population projections are taken from 2014-based figures published by the ONS.

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

Spending on state pensions

The starting point for this projection is a set of official projections of the future number of people in the UK by age and sex. This is broken down further by employment status using a projection of future employment rates, which are in turn based on an official projection of activity rates. Finally, an earnings distribution is superimposed, which is based on an anonymised 1% sample of National Insurance records supplied by the Department of Work and Pensions.

Based on this labour market projection, the model projects future state expenditure on SERPS, State Second Pension, and contracted-out rebates, as well as contributions to and income from private pensions. Future state expenditure on State Pension is projected using data supplied by the Department for Work and Pensions on the projected eligibility and take-up of state benefits.

Private Pensions

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.

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.

Movement of individuals between schemes due to decline in DB schemes

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

Movement of individuals between schemes post automatic enrolment

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

Overall, after 2012 the private sector workforce is assumed to contribute to either private sector DB pension schemes, DC schemes which were existing prior to automatic enrolment, DC which were set up for automatic enrolment, or schemes set up for those that are eligible for automatic enrolment that did not contribute before the implementation of automatic enrolment. It is assumed that 14% 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.

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

Fund charges are assumed to be 1% for existing workplace DC schemes, and 0.5% for Other DC/master trust schemes set up for automatic enrolment.

Dynamic Modelling

The PPI Dynamic Model projects retirement cashflow outcomes for individuals taken from the English Longitudinal Study of Ageing (ELSA) wave 5 (2010-2011) dataset. For this project it has been used with a deterministic retirement approach assuming that individuals retire at their State Pension age.

Using information from ELSA to inform the base year position, the model projects each individual in future years. Given the short projection period to retirement for those of working age it is assumed that there is no change to behaviour over this period (e.g if they are working in 2010, it is assumed that they continue to work until their SPa and that their employee contribution rate remains constant).

The Dynamic model projects all individuals within the ELSA Wave 5 dataset, which consists of people aged 50 and over and covers a cohort both above and below State Pension age (SPa). For this project only people below SPa are included in the analysis.

Economic assumptions are derived from those published by the Office for Budget Responsibility (OBR) in their Economic and Fiscal Outlook and Fiscal Sustainability Report. The model is capable of projecting variations of the current pension system frame work and behavioural assumptions.

The projection of an individual takes in:
- Private pension accrual to State Pension age
- Retirement income from private pension
- Retirement income from State Pension
- Means tested benefits in retirement, including pensions credit
- Individual taxation

Private pension accrual to State Pension age

The individuals' current pension wealth is taken from the ELSA dataset and projected to their State Pension age. For DC entitlement, this is subject to economic assumptions taken from OBR and an assumed portfolio composition as well as deductions from charges (assumed AMC at 0.5%). Further benefit accruals are based upon current contribution data from ELSA where savers are assumed to continue to contribute at their current rate, based upon income.

For those who do not currently make pension contributions they are assumed to join an automatic enrolment workplace pension scheme subject to eligibility criteria. This is projected at the legislated minimum levels of contributions based upon band salary.

Individuals are assumed to continue working and saving until their SPa, and the accrued funds are subject to the same assumptions as existing pension wealth from the dataset.

Retirement income from private pension

It is assumed that the individuals do not access private pension saving until SPa. For those with DB entitlement they are assumed to convert 25% of their benefit into a lump sum.

For those with a DC benefit who retire before 6th April 2015 they are not eligible for Freedom and Choice and are assumed to take 25% of their pension in the form of a tax-free lump sum and purchase a single life level annuity. For those who reach SPA after 6th April 2015 they are eligible for Freedom and Choice and have more options around access to their pension saving subject to behavioural assumptions.

Retirement income from State Pension

Individuals receive their State Pension at their SPa as currently announced and legislated for. The two tier state pension system is in place for those reaching SPa until 2016, thereafter the single-tier pension is introduced for those reaching SPa after that date.

The State Pension may be uprated by the 'triple-lock' assumption, as applicable to the policy scenario, throughout the projection period or linked to alternative uprating approaches.

It is assumed that the individuals qualify for a full single-tier pension if they retire after April 2016. A foundation pension based on bSP and additional pension as set out above is calculated for those who reach SPa after the introduction of the new State Pension (nSP). If the foundation amount is greater than the nSP level the individual is assumed to receive a CPI linked "protected amount".

Acknowledgements and Contact Details

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

Danielle Baker	Jeannie Drake	Jennifer Summers
Laurence Baxter	Carl Emmerson	Tiffany Tsang
Lawrence Churchill	Maritha Lightbourne	Graham Vidler
Chris Curry	Darren Philp	Rob Yuille
Andy Tarrant	Margaret Snowdon	

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

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

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

Contact: Chris Curry, Director
Telephone: 020 7848 3744
Email: info@pensionspolicyinstitute.org.uk

Pensions Policy Institute
King's College London
Virginia Woolf Building
1st Floor, 22 Kingsway
London WC2B 6LE

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

Platinum

Columbia Threadneedle Investments	Just Retirement
The Pensions Regulator	

Gold

AXA Investment Managers	Capita Employee Benefits
DWP	Hymans Robertson
LV=	NEST
Prudential UK & Europe	RPMI
Standard Life Group	The People's Pension

A full list of supporting members is on the PPI's website.

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

References

Department for Work and Pensions (2014) *Fuller working lives – a framework for action*

Department for Work and Pensions (2015a) *Government response to the consultation on Better workplace pensions: Putting savers' interests first*

Department for Work and Pensions (2015b) *Pensioner Income Series*

Department for Work and Pensions (2015c) *State pension age independent review, terms of reference*

Department for Work and Pensions (2015d) *Workplace pension participation and saving trends*

Department for Work and Pensions (2015e) *Pension charges survey 2015*

Department for Work and Pensions (2016a) *Review of the automatic enrolment earnings trigger and qualifying earnings band for 2016/17: supporting analysis*

Department for Work and Pensions (2016b) *Budget 2016 Expenditure and Caseload forecasts*

Financial Conduct Authority (2016a) *Retirement income market data*

Financial Conduct Authority (2016b) Retirement Outcomes Review, terms of reference

HM Revenue and Customs (2016) *PEN6*

HM Treasury *Budget 2014*

HM Treasury (2015) *Strengthening the incentive to save: a consultation on pensions tax relief*

HM Treasury (2016), Budget 2016, *Policy Costings*

HM Treasury (2016) *Pension transfers and early exit charges*

HM Treasury (2016a) *Public financial guidance review: proposal for consultation*

HM Treasury (2016b) *Introducing a Pensions Advice Allowance*

House of Commons Library (2012) *Public service pension reforms – 2010 onwards*

Independent Public Service Pensions Commission (2010), *Interim Report*

Independent Public Service Pensions Commission (2011) *Final Report*

Institute for Fiscal Studies (2014) *Incentives, shocks or signals: labour supply – effects of increasing the female state pension age in the UK*

Institute for Fiscal Studies (2016) *What happens when employers are obliged to nudge? Automatic enrolment and pension saving in the UK*

Office for Budget Responsibility (2015) *Fiscal sustainability report*

Office for Fair Trading (2013) Defined contribution workplace pension market study

Office for National Statistics (2006) *Estimating the average age of withdrawal from the labour force*

Office for National Statistics Labour Force Survey, Employment rates, by gender and age bands, 2003-2015

Office for National Statistics (2014) *Annual Survey of Hours and Earnings*

Office for National Statistics (2015) *Annual Survey of Hours and Earnings*

Office for National Statistics (ONS) (2015a) *Official Statistic on workplace pension participation and saving trends of eligible employees: 2004-2014 Broken down by sector and other characteristics* ONS

Office for National Statistics (2016): *Employees and self-employed by industry*

Pensions and Lifetime Savings Association (2016a) *DB Taskforce Interim report*

Pensions and Lifetime Savings Association (2016b) *Costs, capital and charges*

Pensions and Lifetime Savings Association (2016b) *Pension Freedoms: No More Normal*

Pensions Policy Institute (2003) *The Pensions Landscape*

Pensions Policy Institute (2013) *The implications of the Coalitions Government's public service pension reforms*

Pensions Policy Institute (2016a) *Briefing note 82: Lifetime ISAs: the international evidence*

Pensions Policy Institute (2016b) *The distributional impact of State Pension age rises*

Pensions Policy Institute (2016c) *The Future Book: unravelling workplace pensions, second edition 2016*

Pensions Policy Institute (2016d) *The under-pensioned 2016*

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

Pensions Commission (2005) *The Second Report of the Pensions Commission: A New Settlement for the Twenty-First Century*

The Pensions Regulator (2016a) *Automatic enrolment: commentary and analysis: April 2015-March 2016*

The Pensions Regulator (2016b) Freedom and choice: How occupational pension schemes have implemented the pension flexibilities

The Pensions Regulator and Pension Protection Fund (2015) *The purple book*

Published by
PENSIONS POLICY INSTITUTE

PPI

www.pensionspolicyinstitute.org.uk
ISBN 978-1-906284-47-3