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What should be the balance between state and private pensions?

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Pensions Policy Institute

Part of the *Shaping a Stable Pensions Solution* series of seminars

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www.pensionspolicyinstitute.org.uk

What should be the balance between state and private pensions?

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- Macro-economic analysis suggests that the "40:60" target is unlikely to be met
- The "40:60" target looks achievable for only a small segment of the population
- The 'right' balance between state and private pension provision depends on social policy objectives as well as macro-economic considerations

The "40:60" target is unlikely to be met

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- In 1998 the Government set a target to achieve 60% of pension income from private pensions by 2050 (compared to 40% in 1998)
- This assumed that state spending on pensions would fall; and
- Private pension income would rise

The 40:60 shift will not happen on current trends

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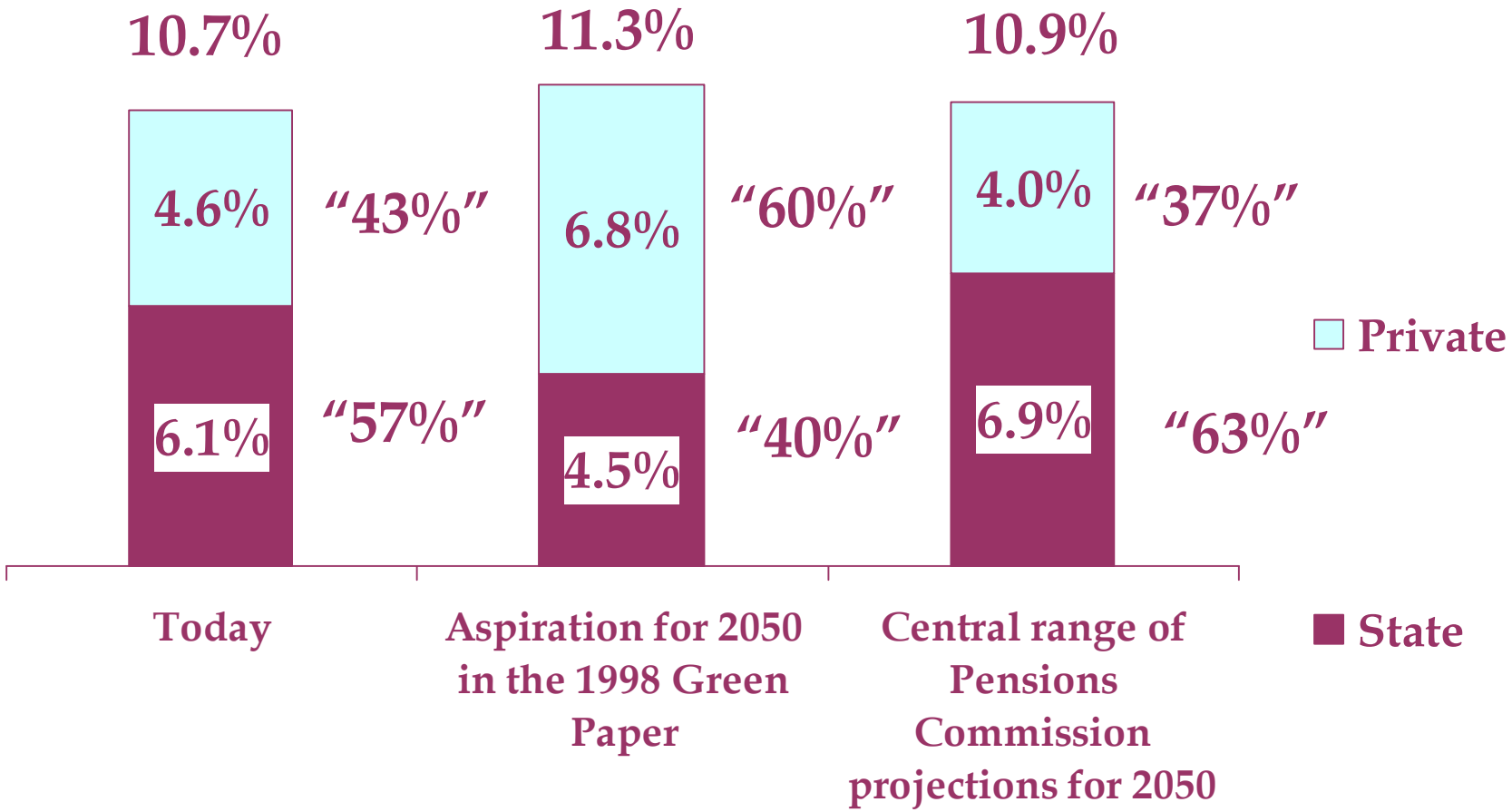
Projected income paid to pensioners as a percentage of Gross Domestic Product (GDP), today and 2050



The "40:60" target is not realistic for most individuals

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- Fewer than half of women and around half of men would achieve "40:60", if they reached target incomes
- Actual saving patterns suggest that people would save less than required, so in practice even fewer would reach "40:60"

Private pension income is less than 60% of target income for most women

Contracted-in

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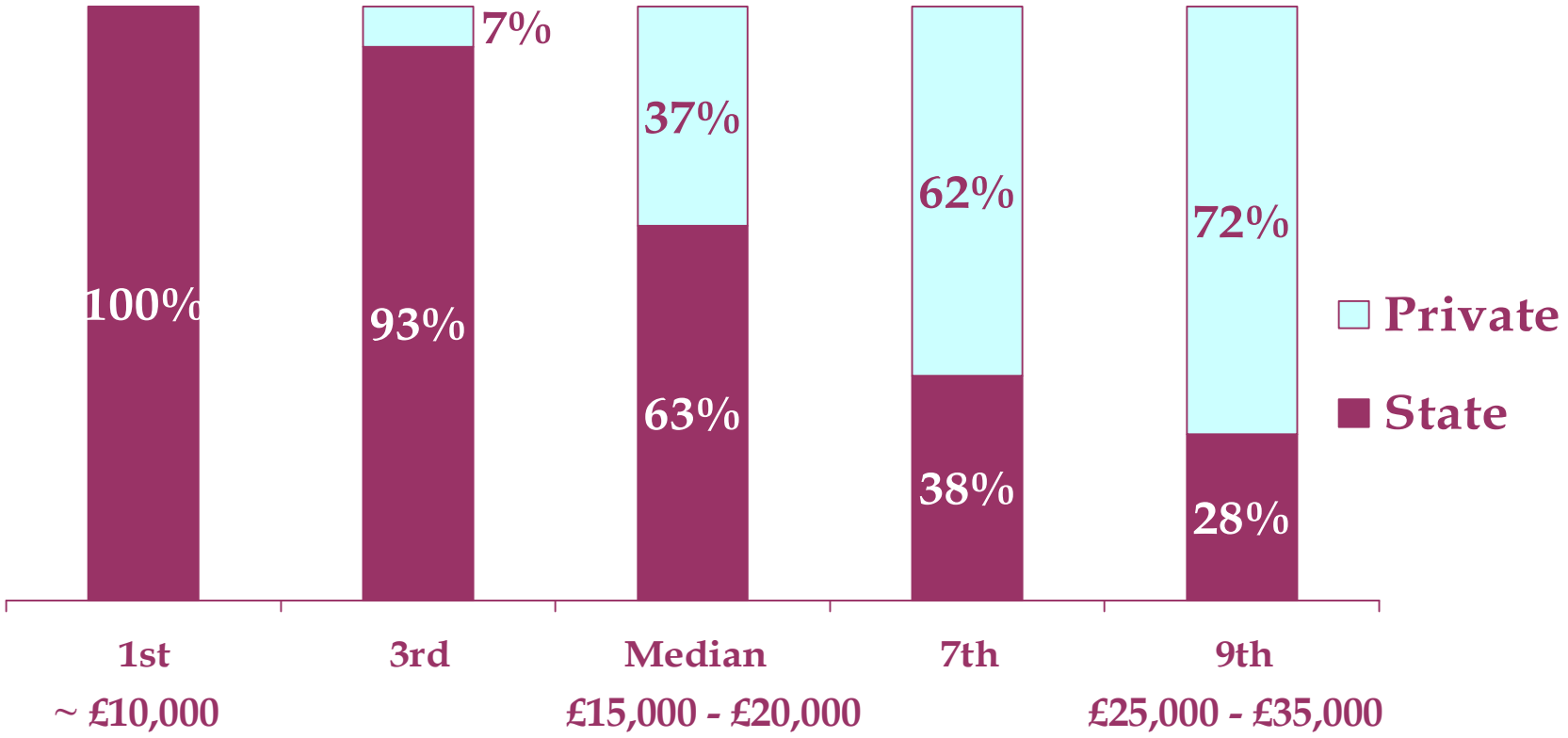
Balance between state and private income needed to achieve target replacement rate for women reaching SPA in 2053 and claiming Pension Credit



Private pension income is more than 60% of target income for most contracted-out women

Contracted-out
41 to 55

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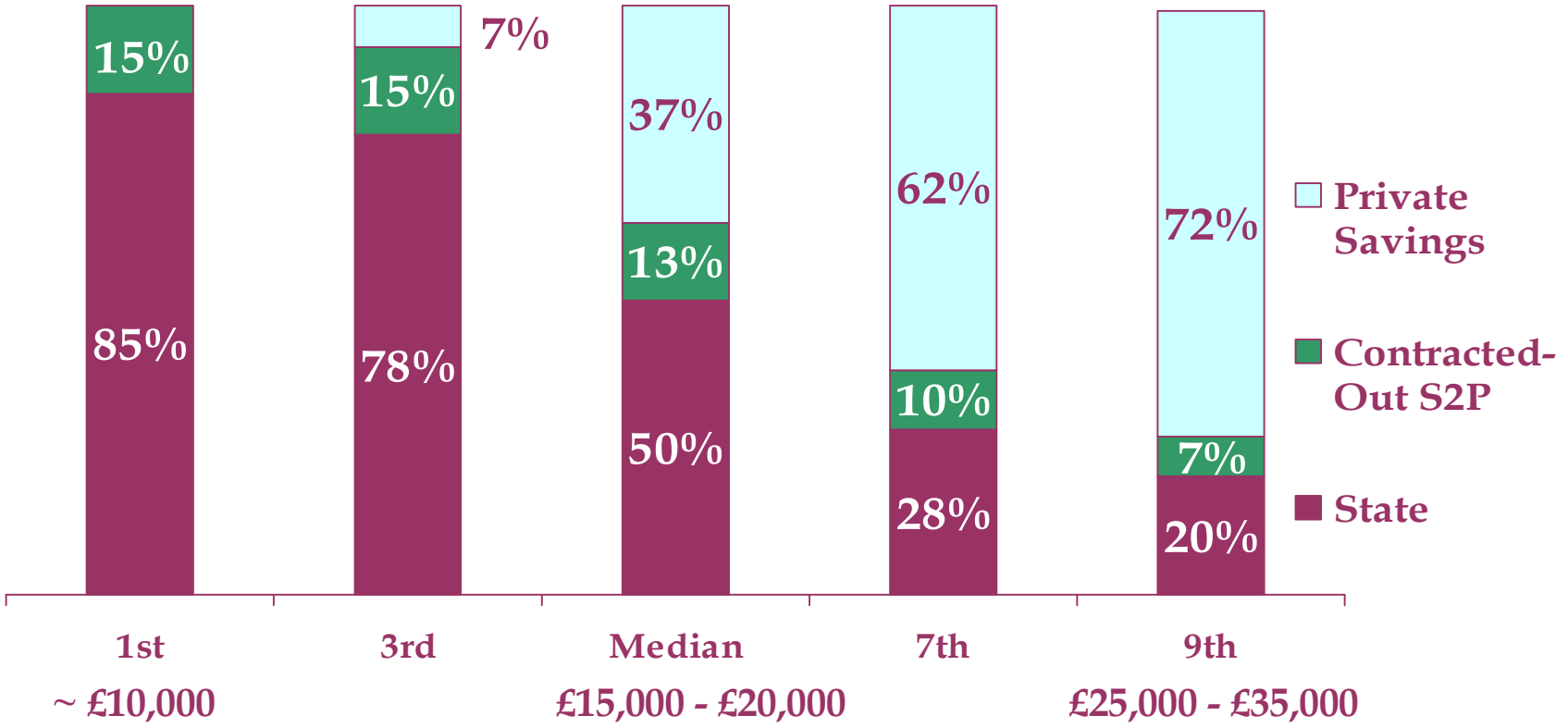
Balance between state and private income needed to achieve target replacement rate for women who are contracted-out between ages 41 and 55 and reach SPA in 2053



Required savings rates for target replacement rates are very high for high earners

Contracted-in

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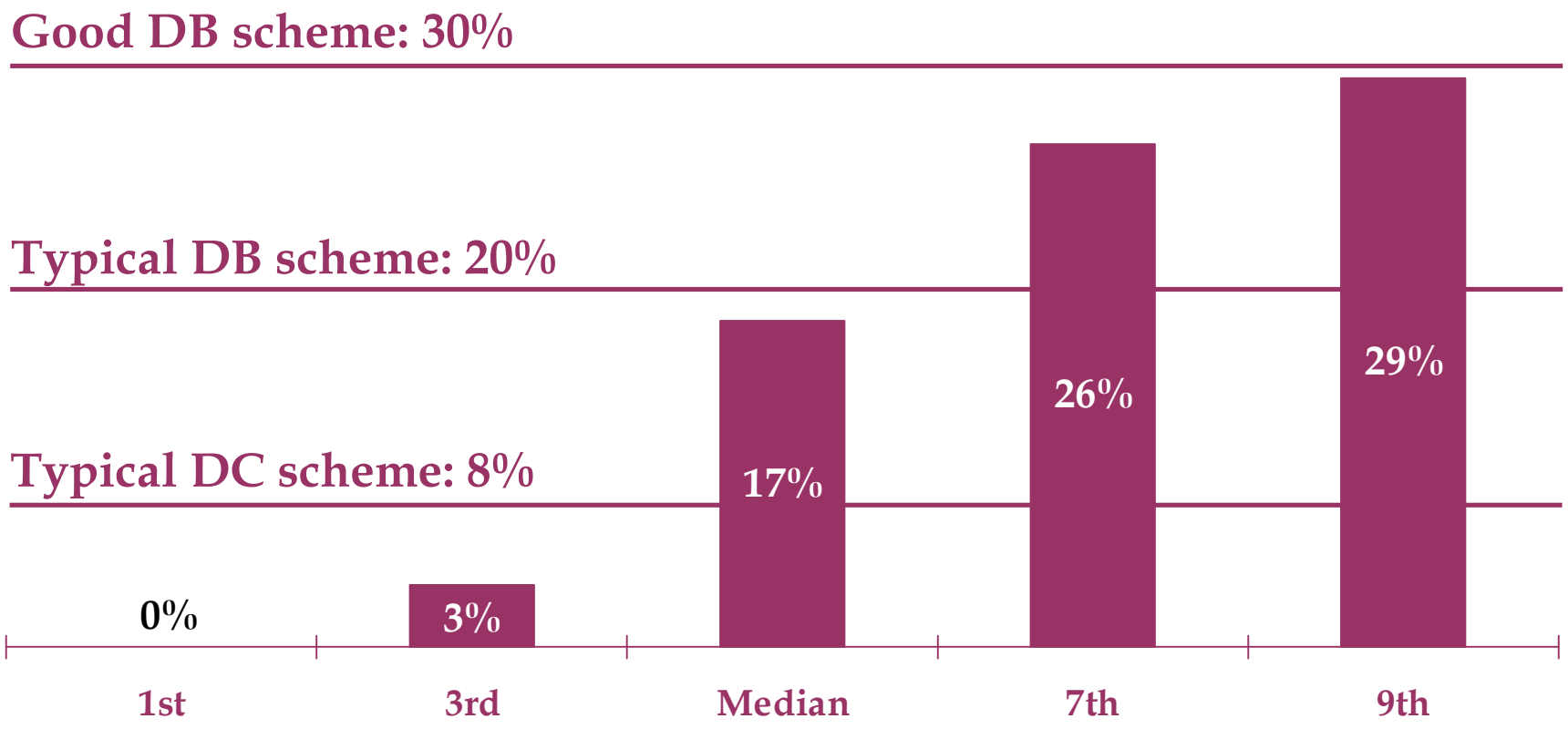
Savings required as a percentage of salary to achieve target replacement rate all women reaching SPA in 2053, by earnings decile



Working longer and non-pension saving could help reach "40:60"

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- If the median woman worked and saved until age 70,
- Could use Equity Release,
- Started saving at 35, and
- Contracted-out for 15 years,
- She would only need to save 12% each year to achieve "40:60" (but would exceed her target income)

Is "40:60" the right balance?

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- Does private pension provision have **economic** advantages?
- How should state and private pensions mix to meet **social policy objectives**?

The total resources available are likely to be similar under different mixes

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- The investment return potential of private pension saving does not always boost ultimate pension income
- Individual ownership *may* be more important in growing the resources available in the economy than whether a pension is funded or unfunded

What should be the balance between state and private pensions?

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- Macro-economic analysis suggests that the "40:60" target is unlikely to be met
- The "40:60" target looks achievable for only a small segment of the population
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Possible social policy objectives

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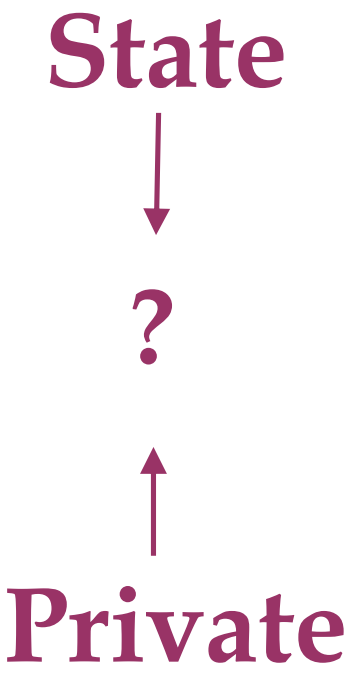
1. Alleviation of poverty
2. Prevention of poverty
3. Belonging and participation in the community
4. Continuance of economic status



Although there is broad consensus that both state and private pensions should be strong, there is no consensus on where the roles of state and private pensions should meet

Pensions Commission

Pensions: Challenges and Choices
The First Report of the Pensions Commission

Macroeconomics and pensions

Chris Dobson
Pensions Commission Secretariat

www.pensionscommission.org.uk

Our terms of reference

"to keep under review the regime for UK private pensions and long-term savings, and to make recommendations to the Secretary of State for Work and Pensions on whether there is a case for moving beyond the current voluntarist approach."

Simplicity, Security and Choice: Working and Saving for Retirement,
DWP Green Paper, December 2002

The Pensions Commissioners

John Hills, Adair Turner and Jeannie Drake

They are supported by a small civil service secretariat

What this presentation does not cover

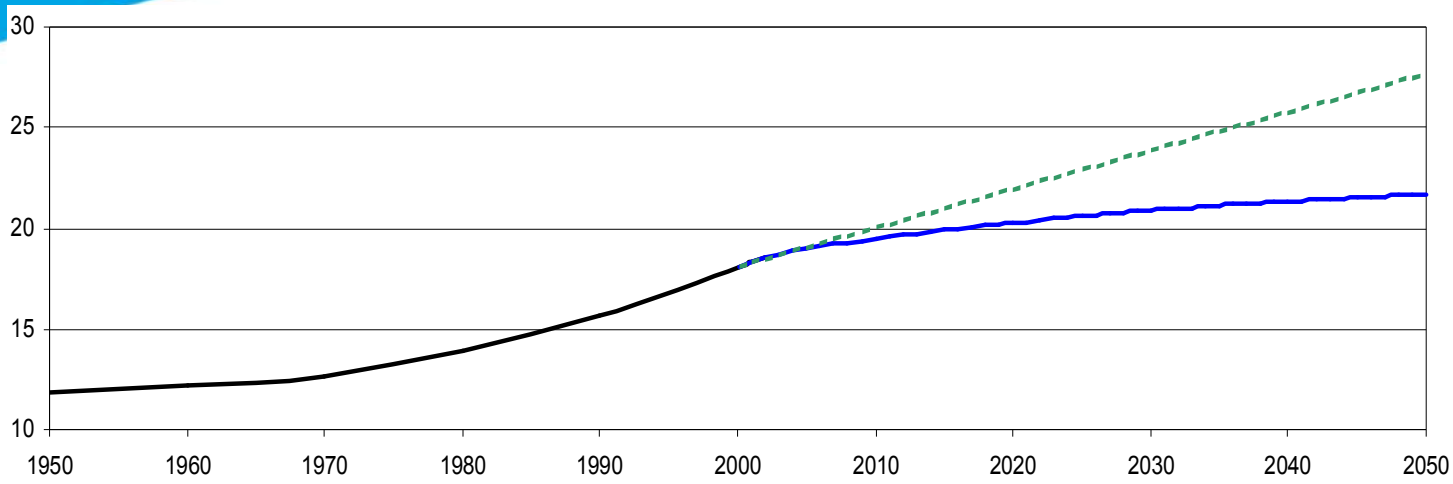
- Recommendations
- New analysis
- Comment on government policy

Contents

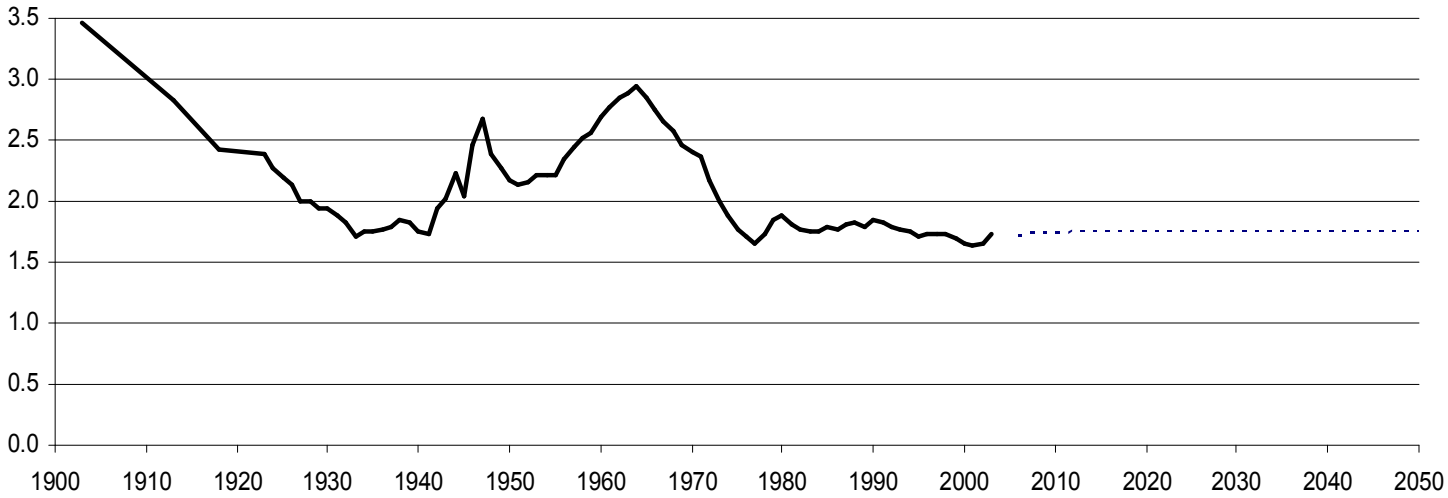
- **Macroeconomic theory**
- Our model's objective and how it works
- Theoretical results
- Results for the UK
- Conclusions and next steps

Demographic Context

Rising Longevity



Falling Fertility



Macroeconomics

- Two basic models: pay as you go (PAYG) and funded.
- In PAYG current contributions directly pay for current pensions.
- In a funded system current pensions are also funded out of current contributions: workers must give up consumption for it to be available to pensioners.
- Clearly the mechanism is different

Macroeconomics

In PAYG and funded systems

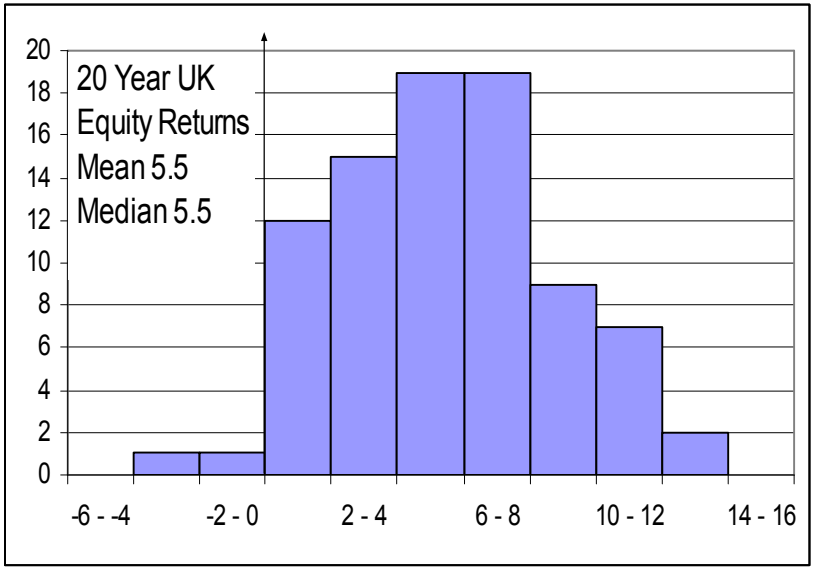
- An increase in longevity will lead to lower pension incomes or higher contributions unless retirement ages increase
- A fall in fertility will do the same
- In both cases, if those who benefit from improved longevity work proportionately longer the problem is solved.
- But dealing with a fall in fertility is more difficult because life expectancy is unchanged
- The UK faces a mix of the two, so retirement ages would have to rise more than proportionately to solve the problem

Rates of return are a key issue

- In a PAYG system your pension is based on contributions from the following generation. The return is productivity growth plus population growth (of workers)
- In funded system, the return depends on the assets you invest in (and charges)
- In an efficient economy, rates of return on productive assets > economic growth so funding might give you a better return.
- But this implies risk and admin costs can be significant.

Rates of return

- Based equity returns over the past century, we assume 3-4% net.
- But returns may be driven down by 0.5% due to demographics
  - Increase in K/L leads to reduced r/w
  - Increase in relative supply of assets leads to price falls
- Investing overseas could help but demographic changes are being experienced by those countries likely to offer investment opportunities



Ratio of 20-64 Year Olds to 65+

	2000	2050
UK	3.7	2.1
Italy	3.4	1.4
USA	4.8	2.8
China	8.8	2.4
Korea	9	1.7
World	7.8	3.6

Source: United Nations, Medium variant

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Model objective

- To understand relationships between macro pensions variables in a funded system
- And what might happen to them as a result of future demographics

How the model works

- We follow 100 or so generation through work and retirement
- Workers make cash contributions out of earnings into a DC scheme*
- These are invested and the investment income is re-invested to produce a capital fund at retirement
- Pensioners use the capital fund to buy an annuity, which implicitly combines
  - Investment income on the declining capital stock
  - Sale of the capital stock to workers
- Annuity rate depends on life expectancy (assumed to be 'fair value')
- Totals across generations in one year give macro aggregate
- Input variables such as generation sizes, life expectancy, rates of return, economic growth, and savings rate can be changed to test sensitivity

* Employer contributions can be considered as increasing earnings with no implications to model results

How the model works

- Simplifying Assumptions
  - Pension savings are the only savings: there are no other owners of capital
  - Implicitly an open economy in which rate of return and wages are exogenously input, not driven by savings rate or K/L ratio. But overseas sector not modelled
  - No separate corporate sector: implicitly workers are sole proprietors with capital expenditure a deduction from gross income
  - No government sector
  - We are effectively comparing steady states and not really examining dynamics of moving from one to the other

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Key Conclusions from Open Economy Funded Savings Model

- The basic model is

  Pensions as % GNP = Cash Contributions as % GNP + (r - g) * K/GNP
- If people live longer in retirement
  - They receive smaller pensions per pensioner;
  - Pensions as % GNP changes by only a small second-order amount
- If fertility falls
  - Pensioners' per capita incomes are unaffected;
  - Pensions as % GNP increase because GNP has fallen: this rise is proportional to the rise in the dependency ratio
  - More of the capital purchase by workers is matched by sales from pensioners: less is net capital investment
- A different model might produce different results
  - In particular, allowing the rate of return to be endogenous might mean that a fall in fertility leads to lower per capita pension income

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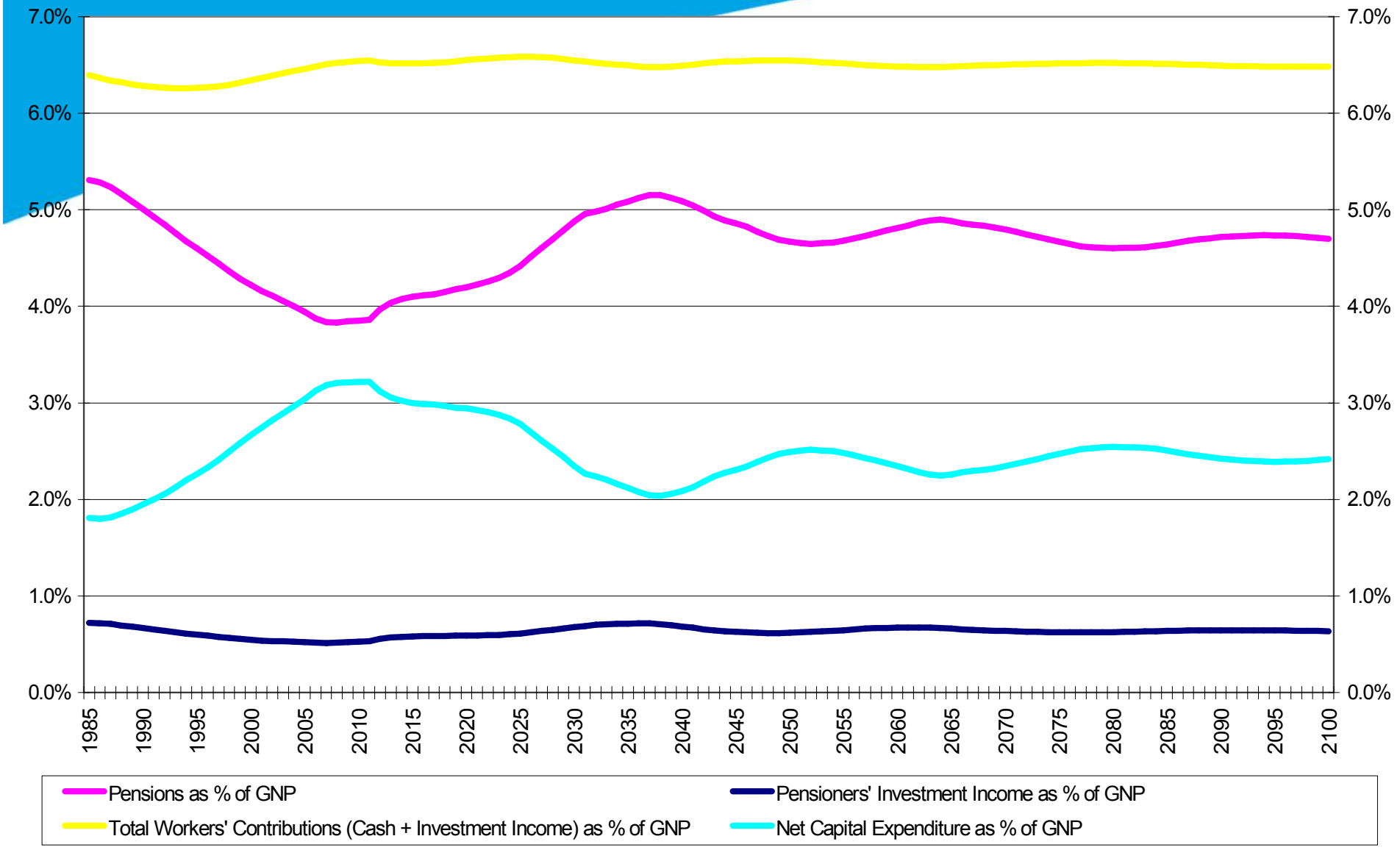
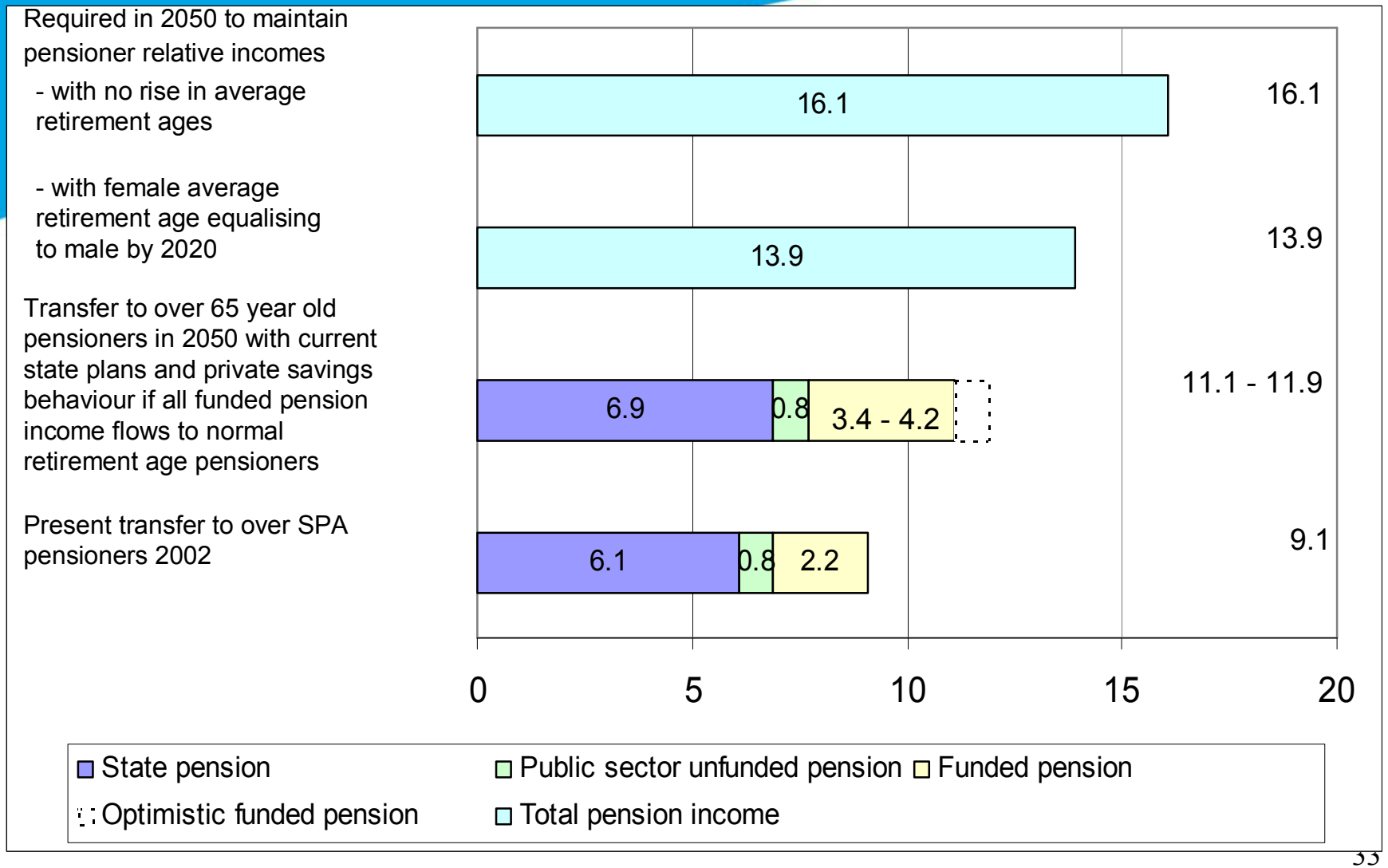
Approximate calibration to the real UK situation

- Rates of return: 3-4%, 1.3%
- Contributions: 2.9% GDP
- Demography: GAD central assumptions on fertility. Longevity less important.

Evolution of the transfer of GDP to pensioners from funded savings



The Implications of Current Plans and Savings Behaviour for the Percentage of GDP Transferred to Pensioners



Based Fig. 4.12, p.145

Sensitivity analysis: funded pension income as %GDP

	Rate of return assumption			
Contribution rate as % of GDP	2%	3%	4%	5%
2.0%	1.9%	2.3%	2.9%	3.6%
2.9%	2.8%	3.4%	4.2%	5.2%
4.0%	3.8%	4.7%	5.8%	7.1%

6.2% is the level of private funded pension income as a percentage of GDP required to maintain relative pensioner incomes without changing average retirement age beyond equalisation to the current average for men.

Presented as our base case

Delaying retirement age makes little difference to the transfer of GDP, but reduces requirement

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Society must choose between these four options.
There are no alternatives.

- Pensioners poorer relative to average incomes
- Higher taxes/NI contributions devoted to pensioners
- Higher funded pension savings
- Higher average retirement ages

Pensions Commission

Questions for discussion (1)

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- What potential advantages or disadvantages of state and private provision has this paper missed?
- What are the objectives in switching from state to private provision, and would they all be met by switching?
- Where in the Levels 1-4 (page 28) should the line be drawn between state and private pension provision? How much agreement is there on this, and what are the areas of disagreement? What would this mean for different individuals?

Questions for discussion (2)

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- Is there an appropriate metric for "40:60" at the level of the individual? Should it vary by income level, whether the private pension is provided by the employer or individual, or other factors?
- Is there sufficient consensus on the merits of private as compared to state pension provision that a target such as the "40:60 switch" makes sense as a desired target rather than an interesting indicator of outcomes?