Savings, pensions and retirement

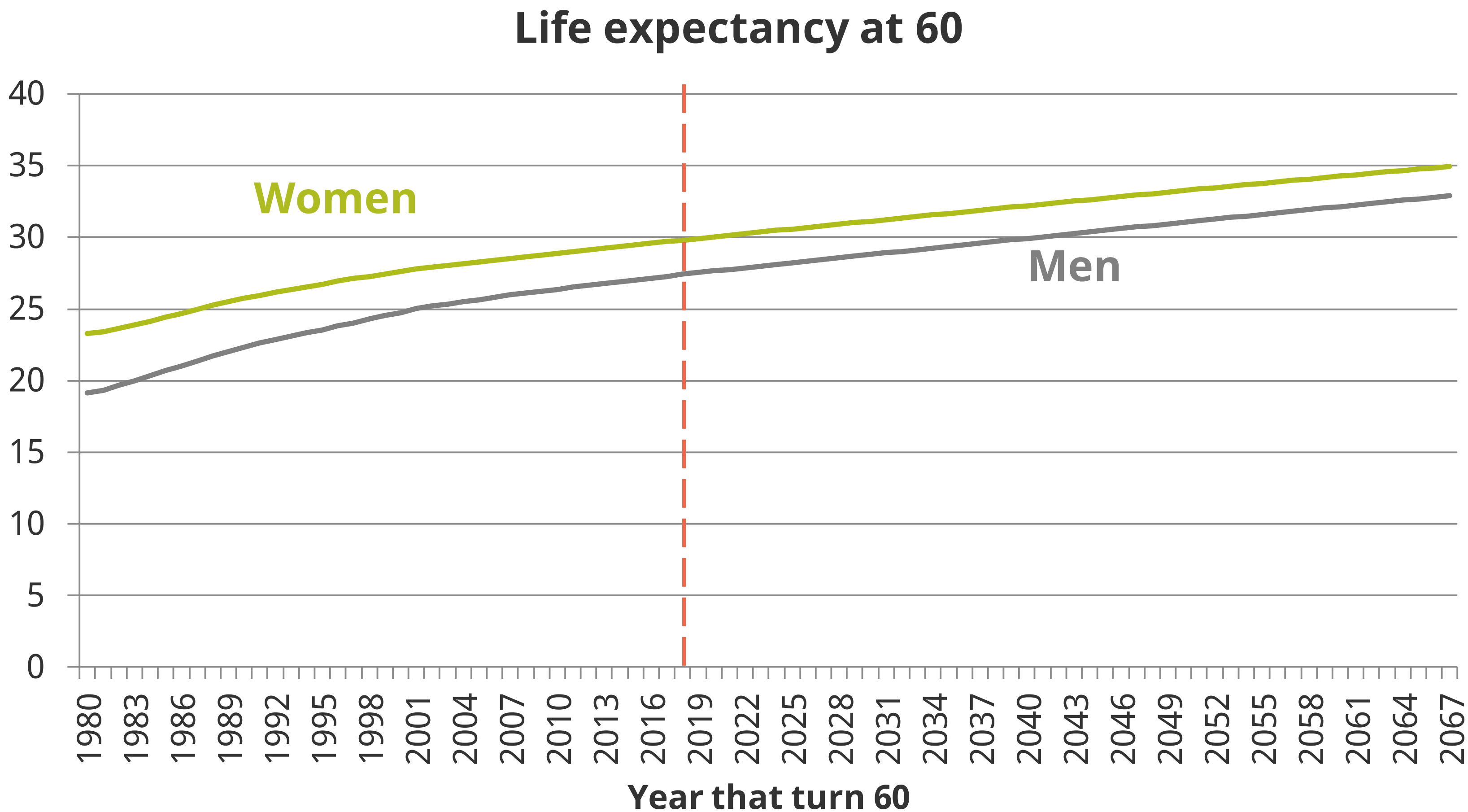
IFS public economics lectures

David Sturrock

5 January 2018

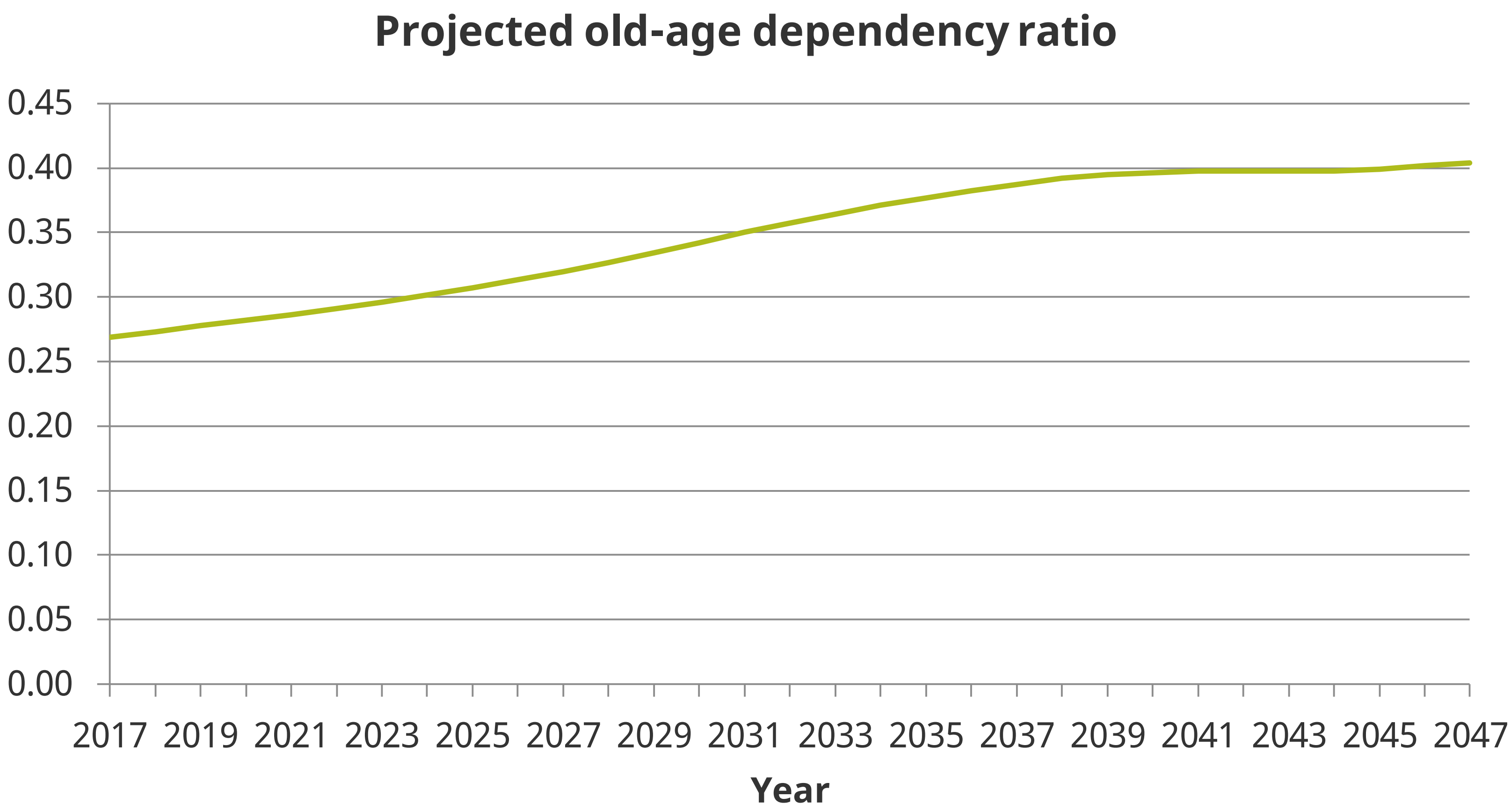
The UK's ageing population

Institute for Fiscal Studies



Source: ONS

The UK's ageing population



Note: Old age dependency ratio is calculated as the total projected population aged 65 and above divided by the total projected population aged 16-65.

Source: ONS

FINANCIAL TIMES

World government?

For the first time in my life, I think the formation of such a thing is plausible Gideon Rachman

Pensions lifeboat risks being swamped

Ross inquiry launched as ex rocks Carphon

Pension deficit of UK's leading companies equivalent to 70% of their profits

UK's leading plcs have combined deficit of £62bn, with the percentage of their profits higher than in 2009 after financial crisis

DAILY Mirror

Elton: Why my boys won't inherit my £200m fortune

EXCLUSIVE INTERVIEW

Katie: I may have aborted Harvey if I had known about his disability

PENSIONS BOMBSHELL

NOW IT'S WORK TO 75

Osborne poised to raise age again

Experts warn of long wait for payout

DAILY EXPRESS

NOW 10p

SO WHAT NEXT FOR TV CHEF JAMES MARTIN

WOULD YOUR HEART PASS AN MOT?

PENSION CRISIS FOR MILLIONS

Fears of poverty in old age mean many will NEVER retire

Now for the big clean-up... Storm Katie's trail of destruction

The Telegraph

Money | Pensions

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The £1 trillion pension crisis facing 11m (and they're the lucky ones)

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Deliciously simple dishes that can help save your life

PENSION BLOW FOR 1.5MILLION

Stealth tax raid set to punish middle-aged save

Ruth Lythe

Money Mail Reporter

Europe's threat t UK over refugee

DAILY EXPRESS

FREE INSIDE THE HAPPINESS DIET

Kickstart the New Year with our lose weight and feel great plan

FREE SLIMFAST SHAKE

PENSIONS CRISIS TO LAST FOR 20 YEARS

Dapper Duke: Why Prince Philip is our most stylish Royal

UK should axe state pension for rich people, says OECD

News › Business › Business News

UK retirement age could hit 80 as pensions deficit sets off time bomb

World Economic Forum points to shortfall of trillions in what people are saving against the cost of funding their retirement

How will we cope? Is it really all that bad?

Institute for Fiscal Studies

Big changes are taking place. These raise questions:

1. What does ageing mean for the sustainability of pensions systems?
2. How should the government respond?
3. Are people able to save enough and prepare for retirement?
4. Are today's young people going to find it harder to provide for themselves in retirement than in previous generations?

- Using UK data, but lessons apply in many advanced economies

State pensions and the challenge of demographics

State pension in the UK

1. **State pension**

- Paid at a **fixed rate** to everyone with sufficient years of eligible activities
  - Around £120 per week for a single individual
  - Eligible activities include paid work (leading to payment of National Insurance contributions) but also child caring, receipt of disability benefits and other activities.
- Paid out of **current** taxation ("Pay as you go")

The economics of an ageing population

Increasing longevity makes "pay-as-you-go" systems less affordable

- Same number of people working to fund more pensioners for longer

For the state pension system, this requires one or more of:

- Increase in taxation for those working
- Increase in government debt (which means higher taxes or lower spending later)
- Reduction in generosity of state pensions:
  - Pension paid at a lower rate
  - Higher taxation of pension income
  - Increase in the state pension age

Government's response to demographic challenges

Government has responded by reducing generosity of pensions:

- Move to "single tier" state pension: Elimination of earnings-related components of the state pension
- State pension age (SPA) increasing:
  - SPA for both men and women will reach 66 in 2020
  - Rise to 67 by 2028
  - Rise to 68 recently brought forward to 2039
  - Next review considering further rises will report by 2023

Government's response to demographic challenges

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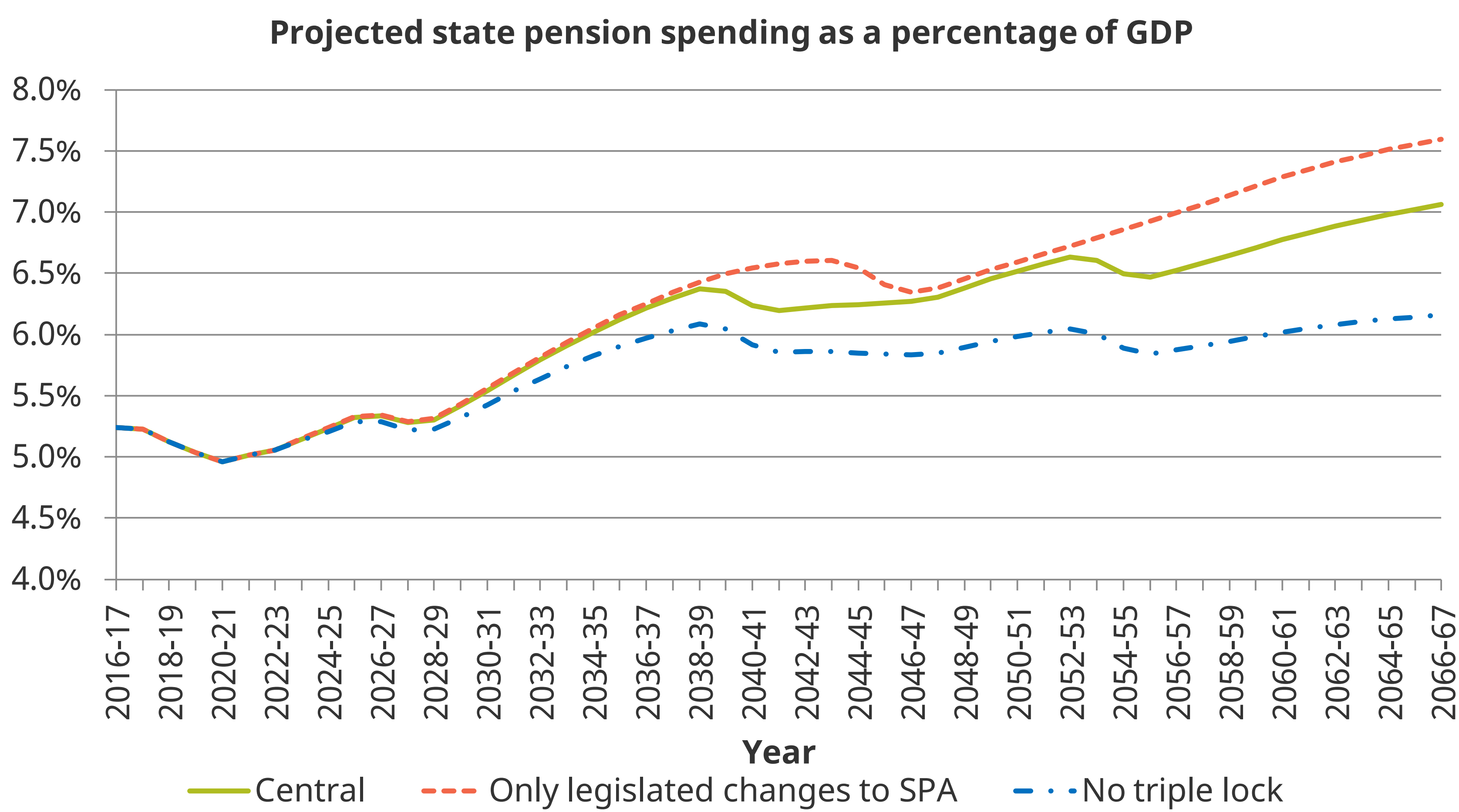


Source: OBR Fiscal Sustainability Report

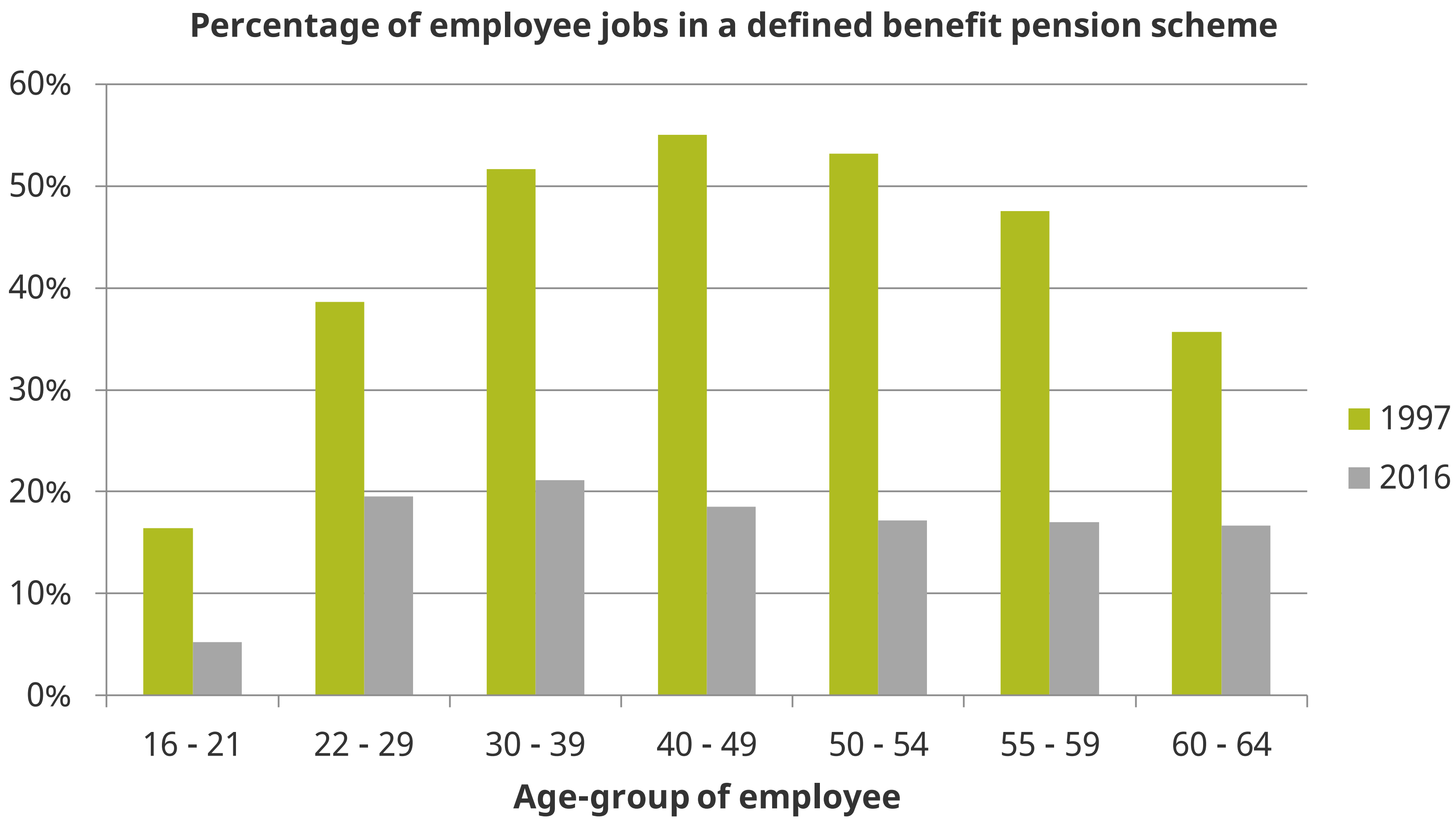
How do individuals provide for their retirement?

Employer and individual provided pensions

1. **Employer provided pension**

- Public sector: mostly defined benefit - pays an amount that depends on earnings according to some **rule; pay-as-you-go**
- Private sector defined benefit: becoming less common; **fully funded**.

Employer and individual provided pensions



Source: ONS

Employer and individual provided pensions

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1. **Employer provided pension**

- Public sector: mostly defined benefit - pays an amount that depends on earnings according to some **rule; pay-as-you-go**
- Private sector defined benefit: becoming less common; **fully funded**.
- Private sector defined contribution: standard for new employees. **Employee decides** how much to contribute. **Fully funded -** pension depends on fund performance

2. **Other private savings**

- Personal pension
- Stocks and shares, ISAs, housing wealth

Are we ready?

Individuals increasingly responsible for providing for own retirement

- Imagine a simple model with no uncertainty:
  - Work for k years
  - Die after T years (so T-k years in retirement)
  - Earn income during working life and save for retirement

$$\mathrm{U} = \sum_{t=1}^{k} \delta^{t-1} u(c_t^w) + \sum_{t=k+1}^{T} \delta^{t-1} u(c_t^r)$$

- ➢ Individuals equate **marginal utility of consumption** over their life
- ➢ Their savings are invested so assets back their pension

Are we ready?

Is this simple model realistic? What about:

- Impatience
- Over-optimism or pessimism about the future
- Asymmetric information about risks to survival, health costs
- Difficulties understanding financial products or planning

We will look at 3 specific departures from the simple model:

- Impatience/procrastination (“present bias”)
- Uncertainty about mortality: the role of information asymmetries
- Uncertainty about mortality: the role of survival pessimism

Impatience and procrastination

Individuals tend to give extra “weight” to today when making decisions – **“present bias”**

- Implication for behaviour depend on whether individuals realise their preferences will change tomorrow (**“sophisticated”**) or not (**“naïve”**)
- Naïvety implies that individuals suboptimally **defer choices** that are **costly now** and bring **benefits in the future** e.g. beginning to save

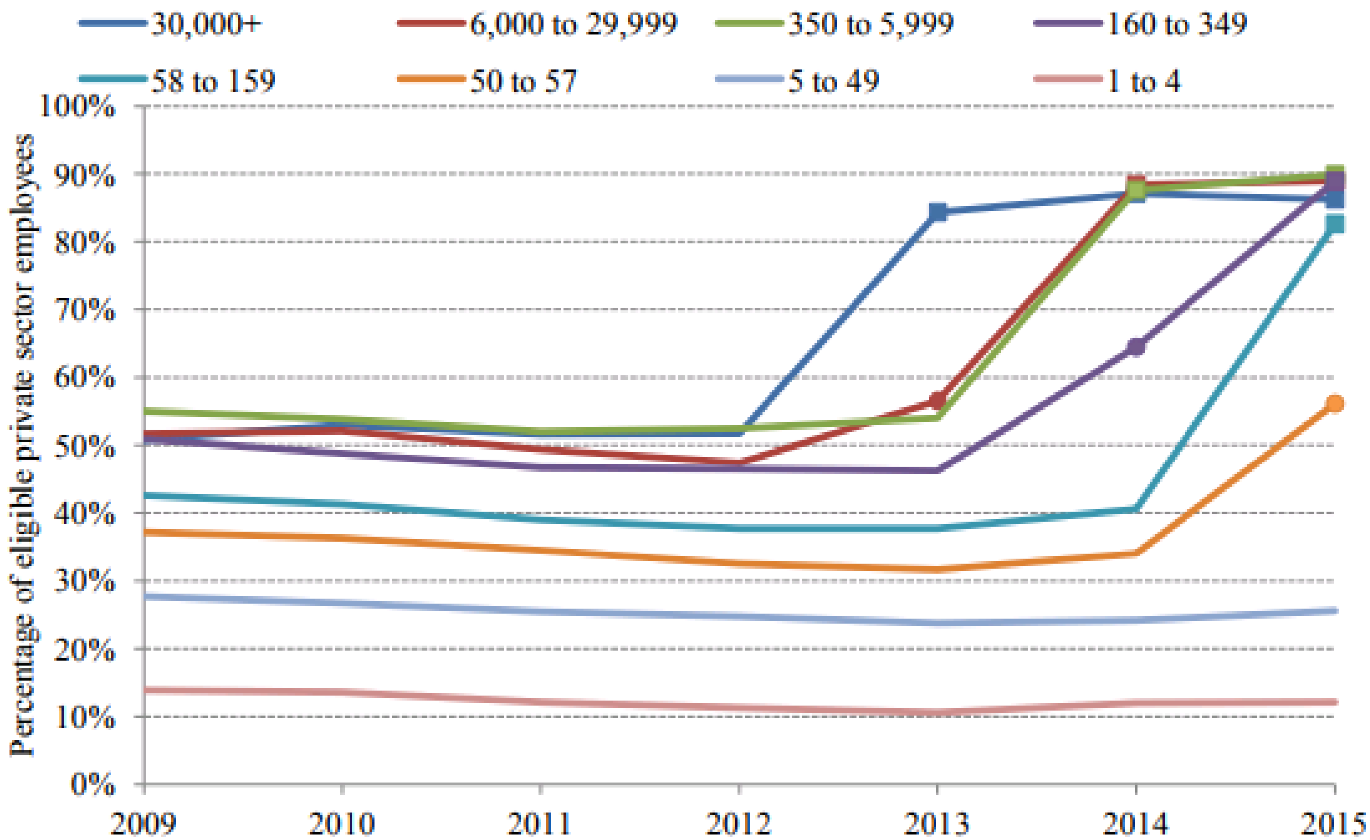
Impatience and procrastination: policy

Policy response has been to automatically enrol workers into workplace pension scheme

- US analysed in Madrian and Shea (2001), Thaler and Benartzi (2004)
- In UK, Pensions Act (2005):
  - Default contribution rate of 1% for both employer and employee
  - Individuals can still choose to leave scheme if they wish

Impatience and procrastination: policy

Workplace pension membership rates amongst private sector employees eligible for automatic enrolment by firm size in 2012



Uncertainty about mortality

We don't (usually!) know exactly when we are going to die

- What are the implications for saving and use of wealth in retirement?
- If individuals are risk averse then
  - Precautionary saving
  - Assets left over
  - Consume less than they "could"

Uncertainty about length of retirement is a risk like any other – can be insured

- An **annuity** is a product which can be purchased with pension wealth and pays out a fixed income until time of death
- "Actuarially fair" annuity has price equal to its expected payout
- A risk-averse individual would want to buy a fairly priced annuity

Uncertainty about mortality: asymmetric info

Asymmetric information can pose problems for annuities markets

- Insurers can tailor annuity rates based on what they know about individuals' chances of living to different ages
- Individuals normally know more about their mortality than do insurers
- Those who don't expect to live long will not purchase an annuity

➢ Adverse selection

There is evidence that this drives behaviour and market outcomes (Finkelstein and Poterba, 2004)

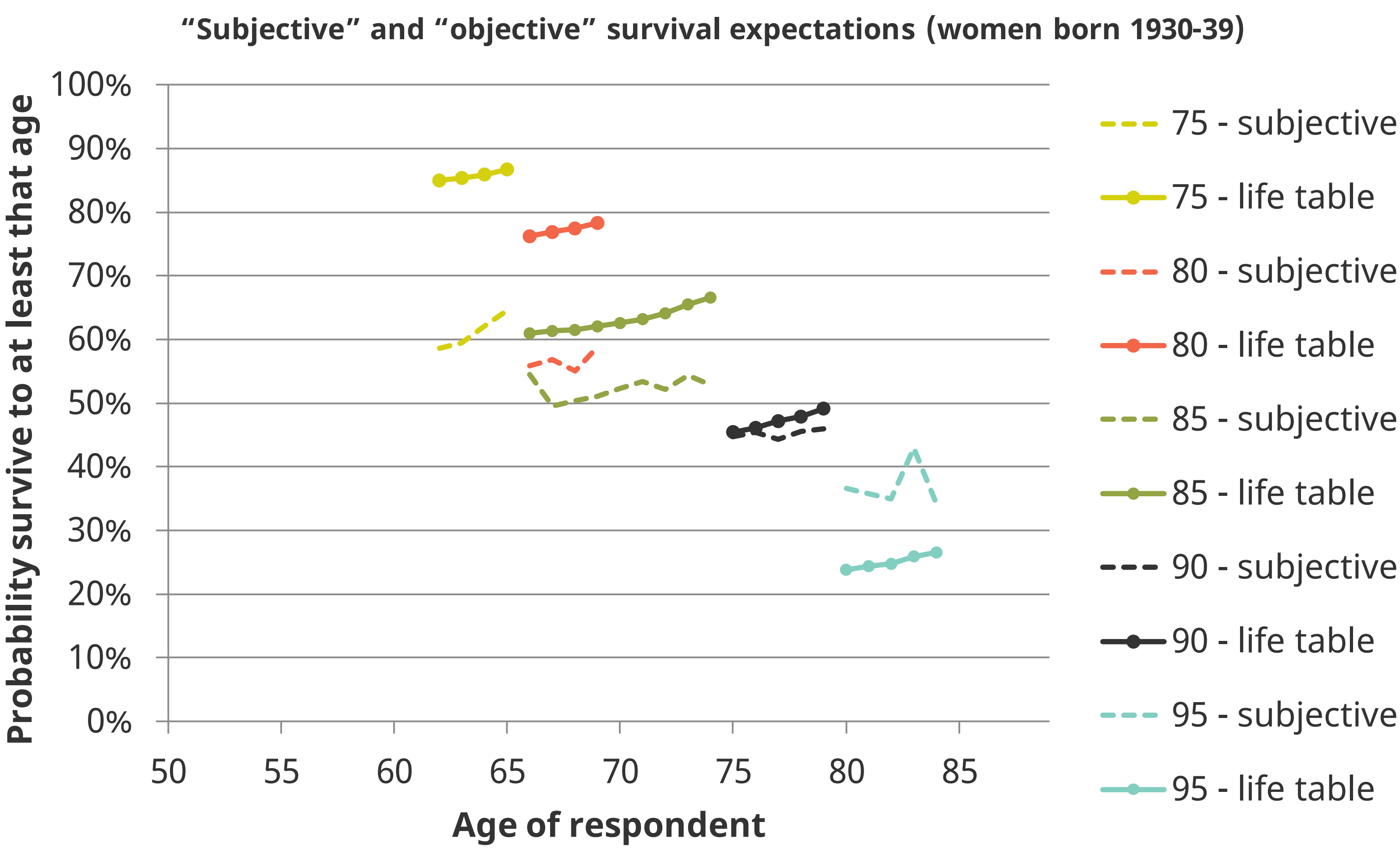
- Individuals who bought annuities where payments were more "backloaded", i.e. inflation linked, lived longer
- "Money's worth" of these annuities was higher suggesting insurers take into account who is buying different products when setting price

Uncertainty about mortality: survival pessimism

Discussion so far assumed that individuals' expectations about how long they will live are not systematically biased

- How can we test this?

Uncertainty about mortality: survival pessimism



Uncertainty about mortality: survival pessimism

Discussion so far assumed that individuals' expectations about how long they will live are not systematically biased

- How can we test this?

Pessimism about survival up to 85/90 and optimism for oldest ages

- What does this mean for economic behaviour, particularly annuities?
- What do individuals perceive to be a "fair" annuity rate?
- Annuity rate is the rate at which can turn stock of wealth into guaranteed income

Uncertainty about mortality: survival pessimism

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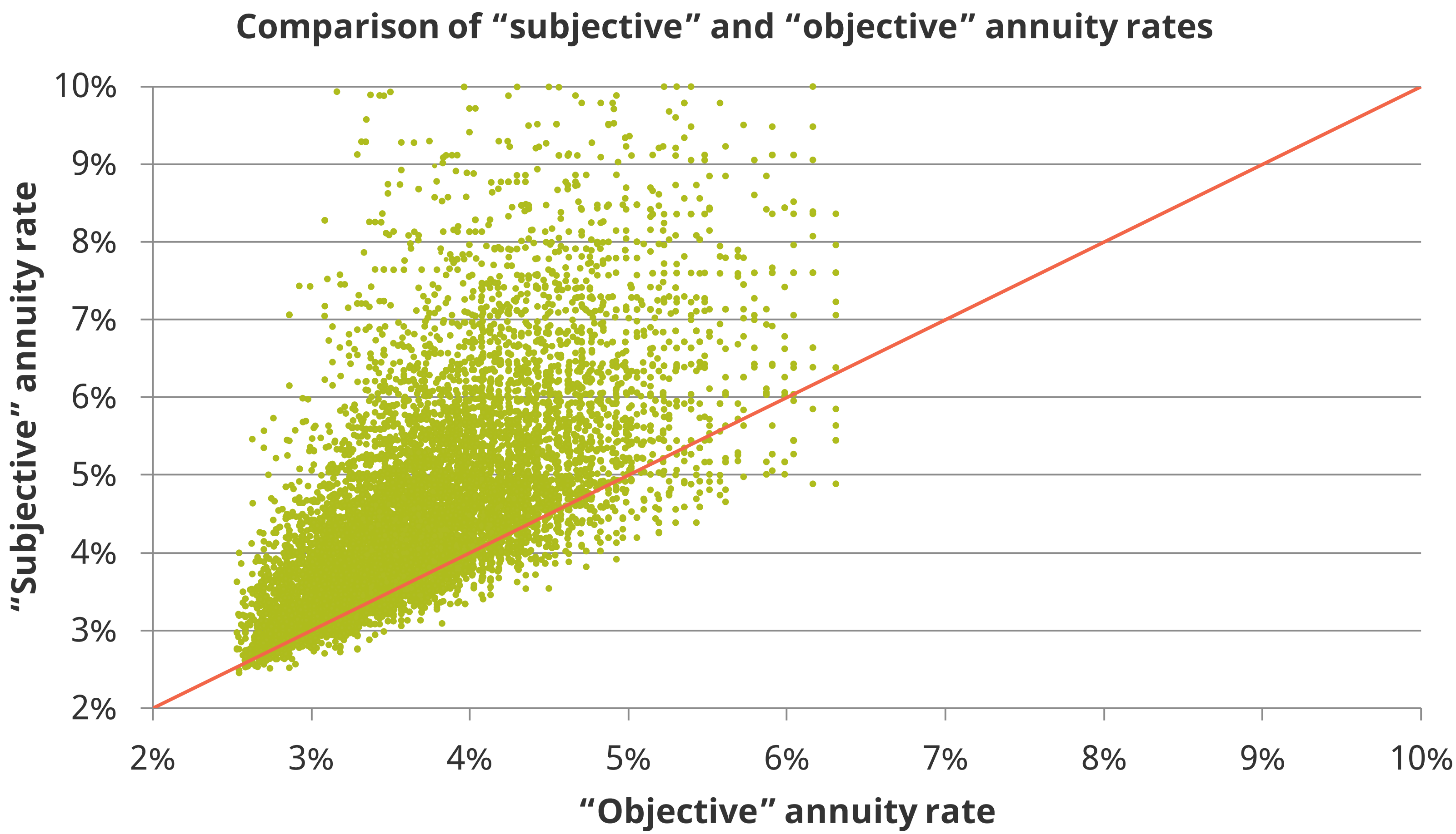


Uncertainty about mortality: policy

What does this all mean for policy?

- Until 2015, essentially compulsory to annuitise DC wealth in UK
- 2015 “Pensions freedoms” promised to give consumers more choice about use of wealth at retirement
- What consequences will this have?

Economics tells us there is a risk that annuities markets will unravel

- Cannon et al., (2016) estimate annuities demand fallen by 75% since policy change
- Coincided with low interest rates and other regulatory changes
- Might consumers be left unable to purchase products that they actually did want?

Concluding thoughts: Where does this leave us?

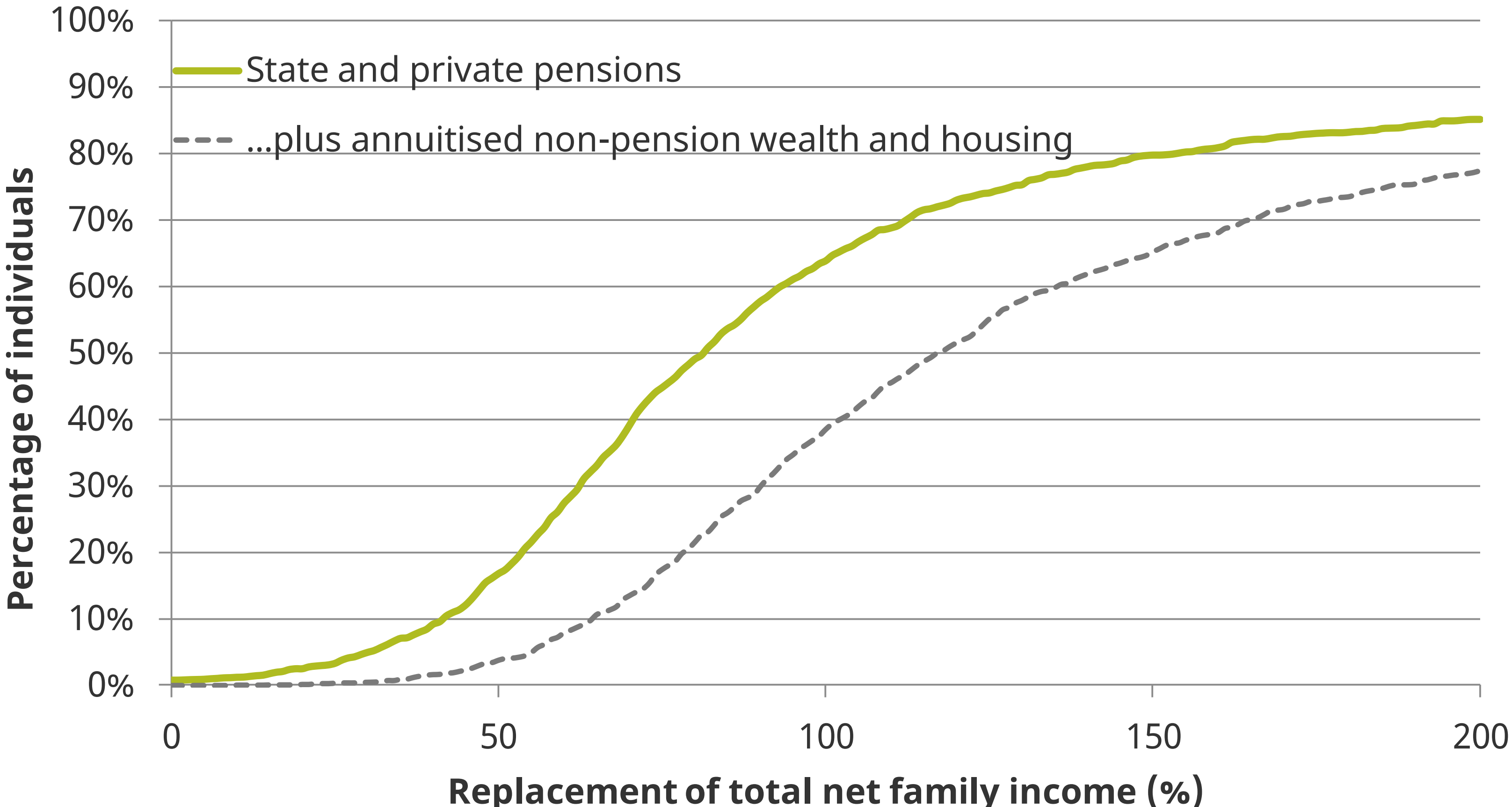
Do individuals save enough?

Most individuals currently reaching retirement can maintain income (Crawford and O'Dea, 2012)

$$\text{Replacement rate} = \frac{\text{annuitised value of wealth} + \text{pension income}}{\text{income before retirement}}$$

Do individuals save enough?

Distribution of replacement rates at state pension age (2008-09, aged 50-SPA)



Source: Crawford and O'Dea (2012)

Do individuals save enough?

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$$\text{Replacement rate} = \frac{\text{annuitised value of wealth} + \text{pension income}}{\text{income before retirement}}$$

But these generations saved in very different circumstances

- DB pensions much more common, and more generous in public sector
- House price growth
- Higher real interest rates than are expected in future
- More limited ability to draw down and spend pension wealth early

Younger generations already look to be building up less wealth than earlier cohorts had at same age

Do individuals save enough?

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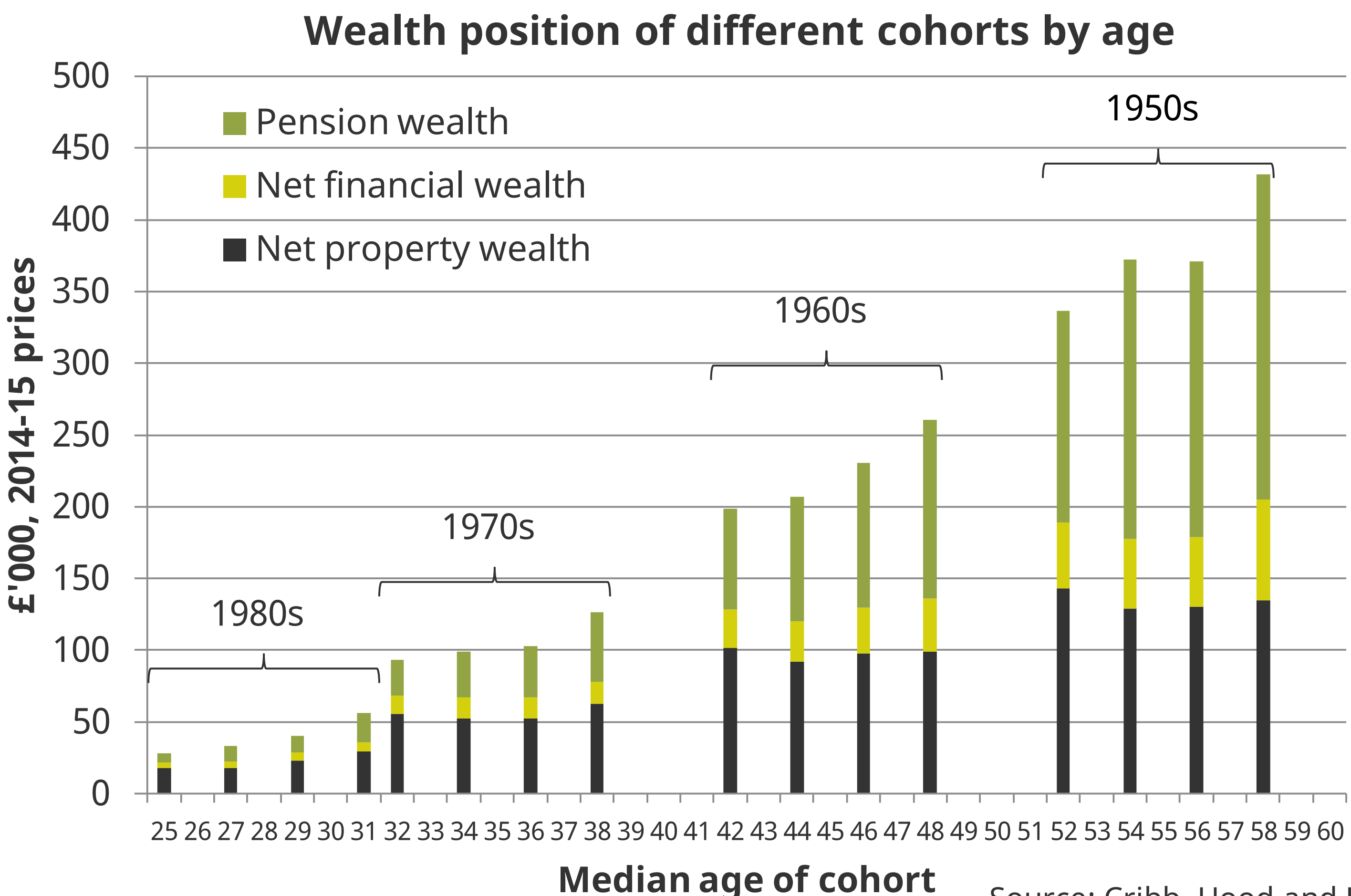

Source: Cribb, Hood and Joyce (2016)

Summary

Demographic change presents challenges

- Rising dependency ratio poses problems for sustainability of state pensions and defined benefit schemes
- The government is reacting by increasing the state pension age and firms increasingly offer defined contribution pension schemes
- Providing for retirement is increasingly the responsibility of individuals

Greater reliance on individual provision has its own challenges

- Accumulation: procrastination tackled with automatic enrolment
- Decumulation: adverse selection, survival pessimism raise questions

Important to monitor how younger generations are saving

- In addition to the challenges above, low interest rates and smaller amounts of housing wealth may make saving a greater challenge

Further links

The adequacy of wealth amongst those approaching retirement (IFS)

https://www.ifs.org.uk/comms/r72.pdf

Economic circumstances of different generations (IFS):

https://www.ifs.org.uk/uploads/publications/bns/bn187.pdf

TED talk on “Save more tomorrow” (Shlomo Benartzi)

https://www.ted.com/talks/shlomo_benartzi_saving_more_tomorrow