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Health, social insurance and the role of the state

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Public Economics Lecture

Today's lecture

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This lecture will consider:

- Why you as economists should care about health care
- Arguments for government intervention in health care
- The broader role of the state in providing social insurance
- An unresolved policy question: should the state provide social insurance against the risk of high social care costs in old age?

Why do economists care about health?

- We spend a lot on health care

We spend a lot on health care: Exhibit A

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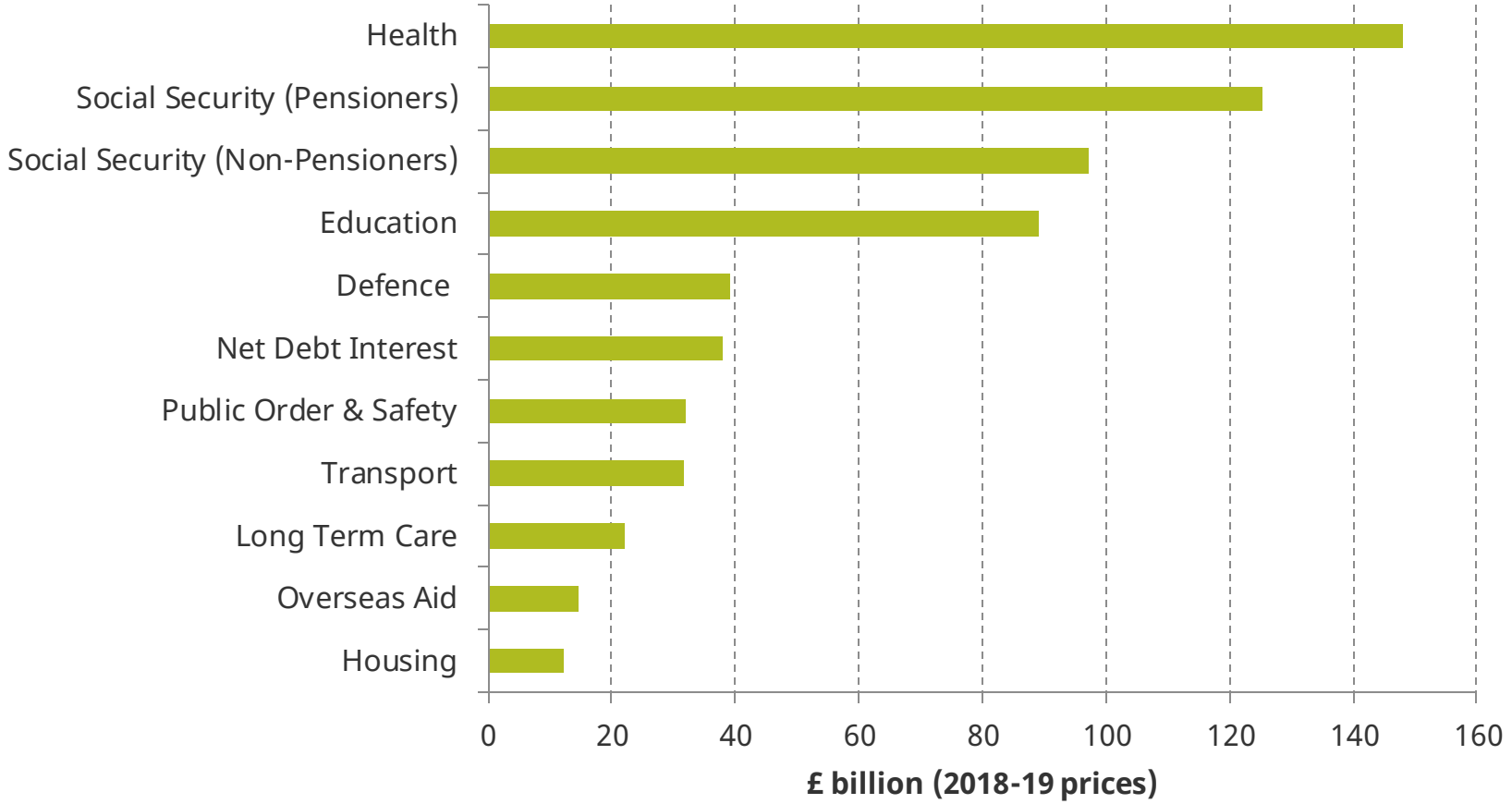
Spending by function, 2017–18



Source: ONS and HM Treasury, Public Expenditure Statistical Analyses, July 2018 (https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2018)

We spend a lot on health care : Exhibit B

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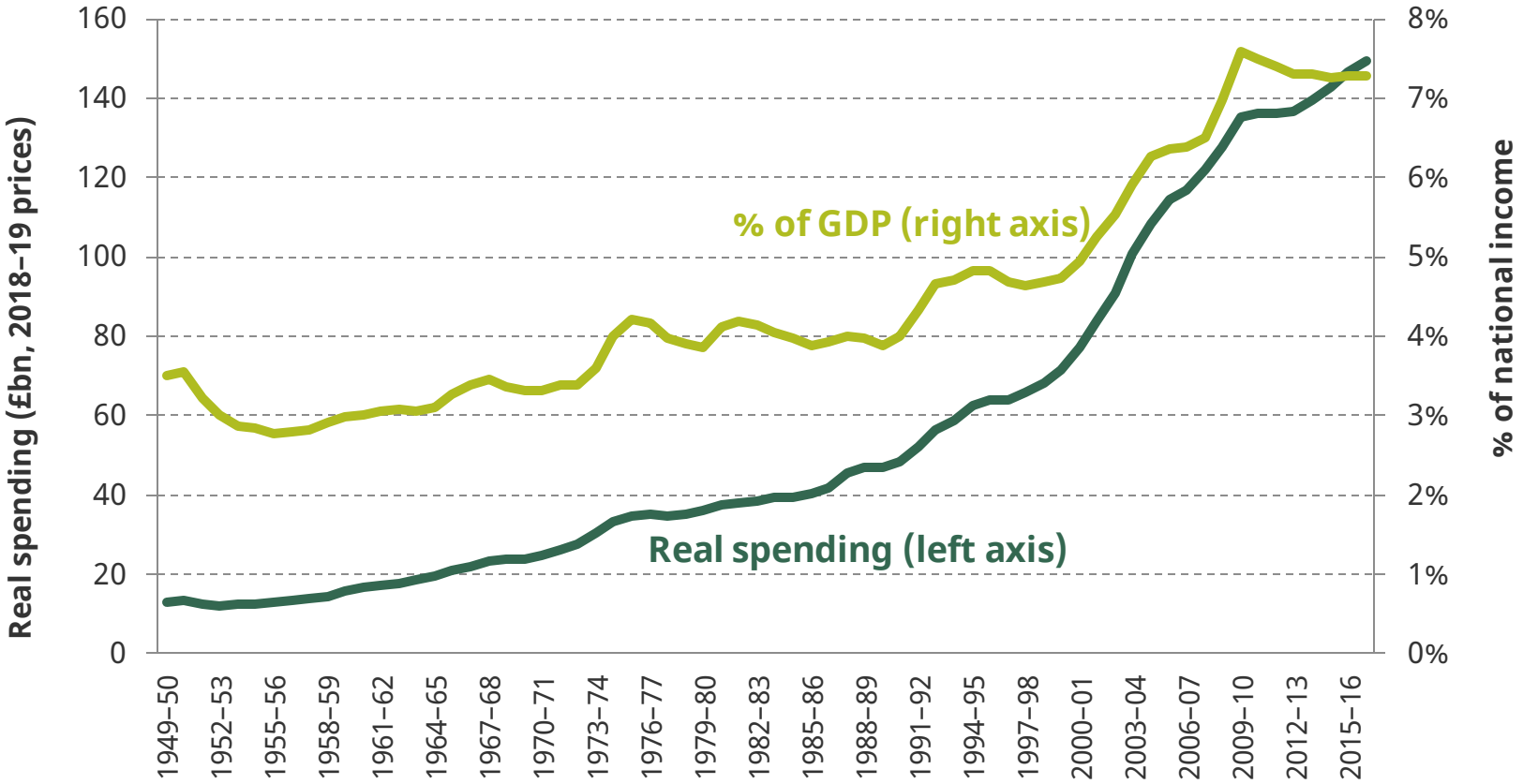
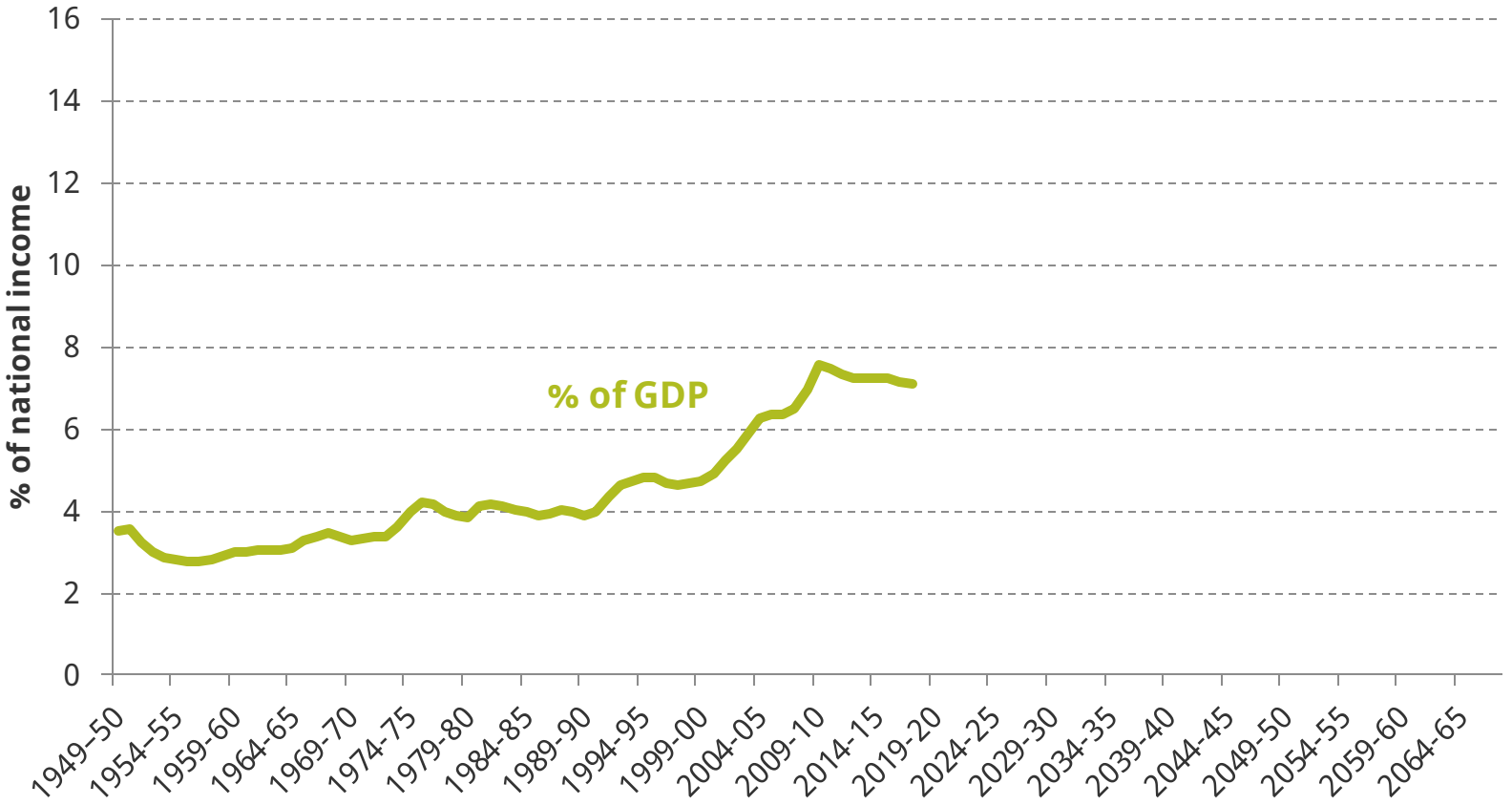
Annual UK public spending on health in real terms and as a percentage of national income



Source: *Securing the future: funding health and social care to the 2030s,* Institute for Fiscal Studies and the Health Foundation, May 2018 (https://www.ifs.org.uk/publications/12994)

We spend a lot on health care now…

Historic health spending as % GDP



Source: Data underlying previous chart and OBR Fiscal Sustainability Report, July 2018 (http://obr.uk/fsr/fiscal-sustainability-report-july-2018/)

… and we're going to spend more in future

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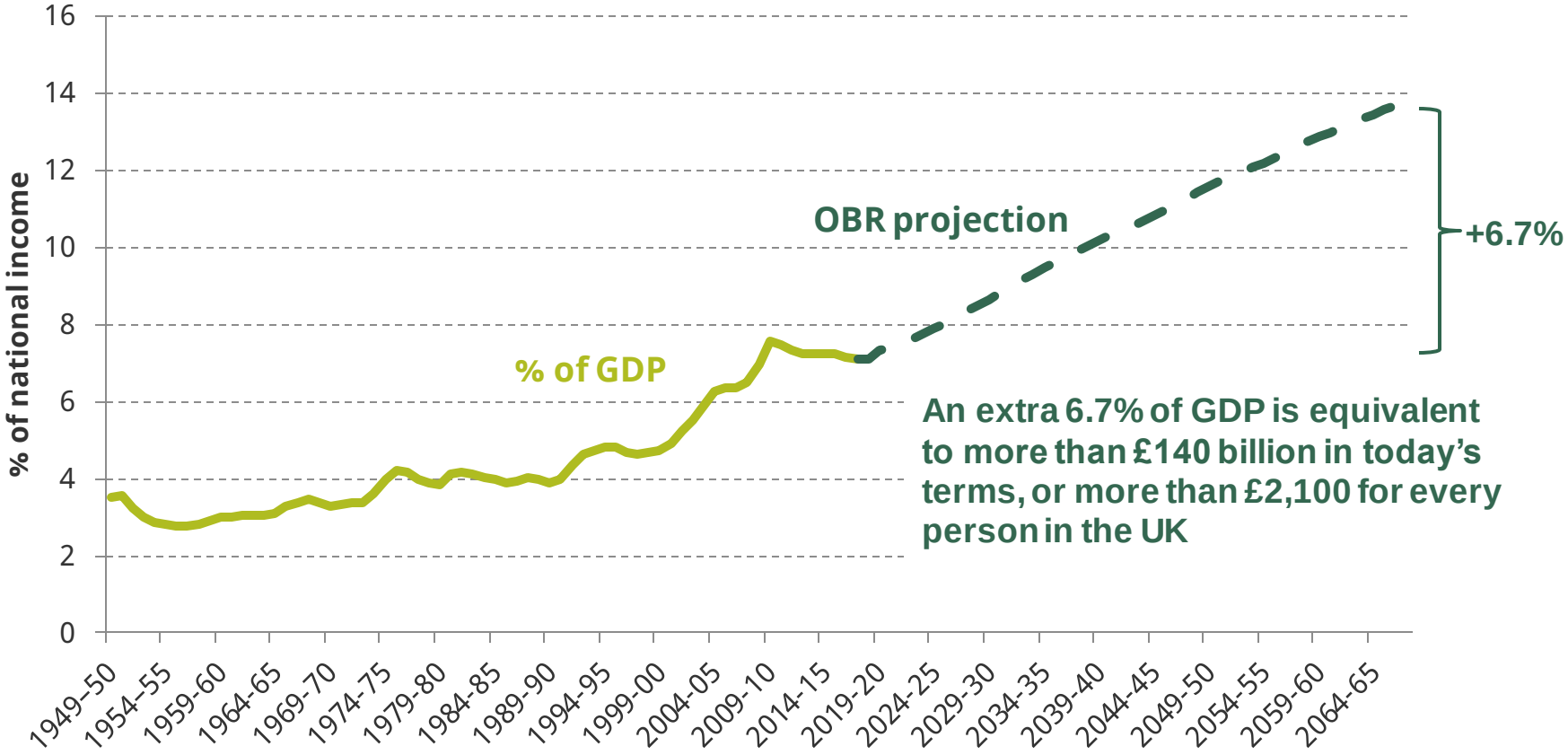
Historic and OBR's projected health spending as % GDP



Source: Data underlying previous chart and OBR Fiscal Sustainability Report, July 2018 (http://obr.uk/fsr/fiscal-sustainability-report-july-2018/)

We spend a lot on health care: Exhibit C

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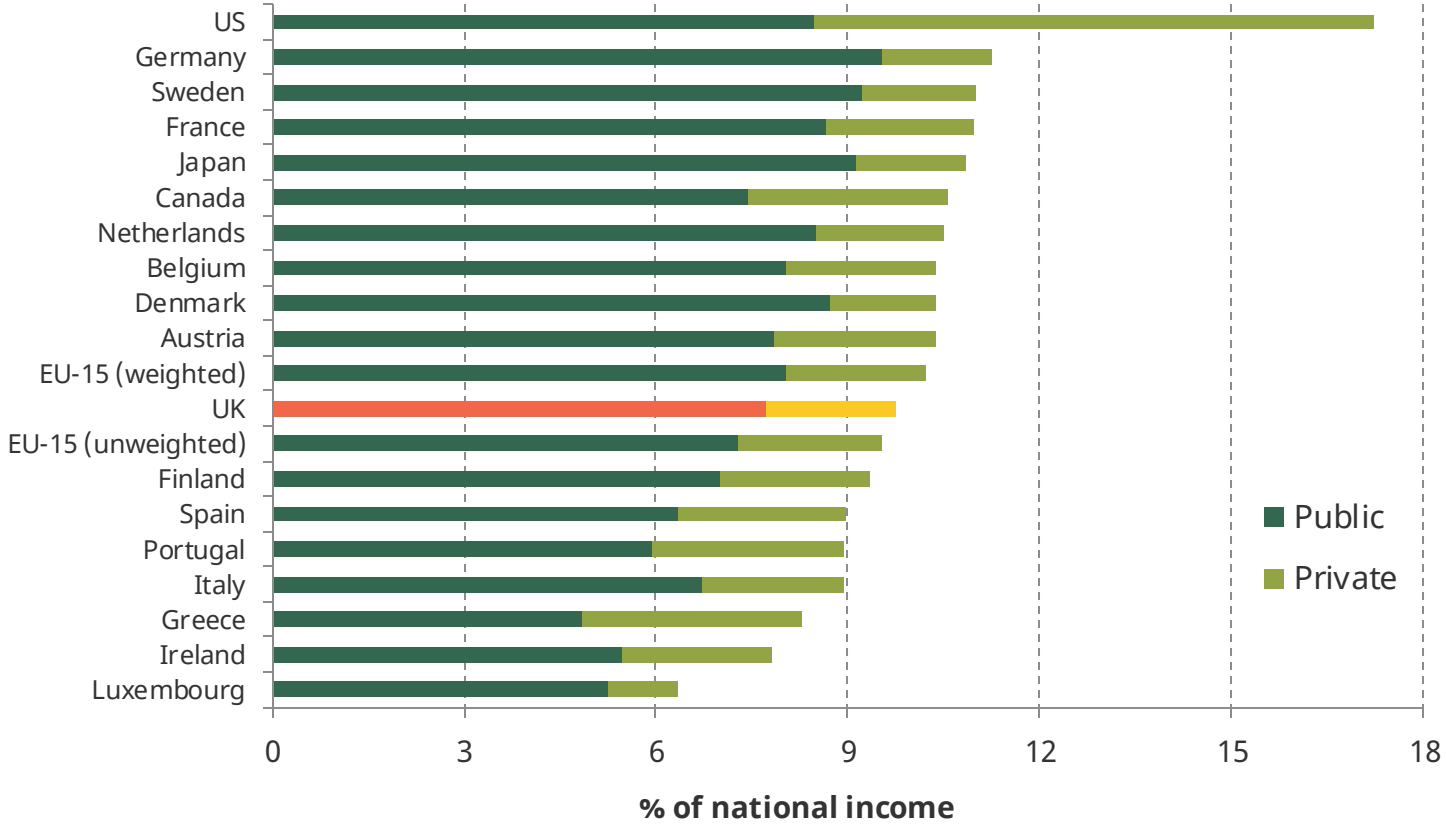
Public and private health spending as a percentage of national income in 2016



Note: Figures shown here are using the OECD's measure of health spending, which differs from that used in previous slides.
Source: OECD Health Statistics
(http://stats.oecd.org/index.aspx?DataSetCode=HEALTH_STAT)

Why do economists care about health?

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- We spend a lot on health care

- Health is an important input or component of human capital
  - e.g. Fetal conditions have been shown to have substantial impacts on economic outcomes later in life (Almond & Currie, 2011)
    - Almond (2006) found that individuals who were in utero at the peak of the 1918 influenza pandemic in the US typically display reduced educational attainment, lower income, lower socioeconomic status and increased rates of physical disability
    - Black et al (2013) find that prenatal exposure to low-dose radiation in Norway (from Soviet weapon testing) was associated with reduced educational attainment, earnings and cognitive ability

Why do economists care about health?

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- Health care is expensive
- Health is an important input or component of human capital
- It's a politically contentious issue that people really care about
  - YouGov, January 2018: The number of Brits saying that health is one of the most important issues facing the country has hit an all-time high of 53% (second only to Brexit)
  - Economists can make a valuable contribution to a high-profile debate

Why do economists care about health?

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- We spend a lot on health care
- Health is an important input or component of human capital
- It's a politically contentious issue that people really care about
- Important when studying individual or social welfare
- It's complicated – which makes it interesting!
  - *"Now, I have to tell you, it's an unbelievably complex subject. Nobody knew health care could be so complicated."* – Donald Trump

The economics of health care

- There are a number of reasons why we need to think especially carefully about how to provide medical care

- Kenneth Arrow wrote the seminal paper on this topic in 1963
  - 'Uncertainty and the Welfare Economics of Medical Care' (*American Economic Review)*

- At the heart of the issue are a number of fundamental economic problems

What if we just left it to the market?

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We'd expect people to demand insurance against health risks

- But how would a private insurance market work? Would it run into problems?

Adverse selection

- Asymmetric information: individuals know more about their risk level than the insurer
- At average fair price, individuals with higher risk of getting sick are more likely to buy health insurance than people with low risk
- Insurers make losses → raise the price of insurance further → only very high risk people buy it → insurers make losses again
- Can lead to market failure where no equilibrium supports provision of insurance

- Classic papers: Akerlof (1970), Rothschild and Stiglitz (1976)

What if we just left it to the market?

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Moral hazard

- Insured individuals take adverse actions in response to insurance against adverse outcomes
  - Reduced precaution against entering the adverse state
    - e.g. bad diet, dangerous sports, smoking, etc.

What if we just left it to the market?

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Moral hazard

- Insured individuals take adverse actions in response to insurance against adverse outcomes
  - Reduced precaution against entering the adverse state
  - Increased odds of staying in the adverse state
  - Increased costs when in the adverse state
    I. Consumers should consume until the point where MB=MC
    II. If consumers don't actually pay the MC themselves (i.e. it's 0 for them), then they will consume until MB=0
    III. If true MC>0, then the good (in this case health care) is consumed in quantities above the social optimum

What if we just left it to the market?

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Moral hazard

- Insured individuals take adverse actions in response to insurance against adverse outcomes
  - Reduced precaution against entering the adverse state
  - Increased odds of staying in the adverse state
  - Increased costs when in the adverse state
- See Einav & Finkelstein (2017) for a discussion in a US context

What if we just left it to the market?

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Externalities

- Infectious disease
- Healthy workers are more productive and absent less

A competitive market?

- A large number of buyers and sellers

What if we just left it to the market?

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- ~~A large number of buyers and sellers~~
- Free entry and exit

What if we just left it to the market?

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A competitive market?

- ~~A large number of buyers and sellers~~
- ~~Free entry and exit~~
- Full information

What if we just left it to the market?

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A competitive market?

- ~~A large number of buyers and sellers~~
- ~~Free entry and exit~~
- ~~Full information~~
- Private costs = social costs

What if we just left it to the market?

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A competitive market?

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- ~~Free entry and exit~~
- ~~Full information~~
- ~~Private costs = social costs~~

Publicly funded health care

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Almost all OECD countries have universal health insurance

- Desirable if health risks are outside people's control (age, genetics)
  - Perhaps less so if due to choices (diet, exercise)
- Government intervention can improve market efficiency and take into account positive externalities – but this involves redistribution

Can address adverse selection, but moral hazard issue remains

- Moral hazard exists with both private and social insurance as long as the insurer cannot perfectly monitor the person insured
  - Might want to partially, but not completely, insure individuals against health risks (Cutler and Zeckhauser, 2000)

International differences

Virtually all OECD countries provide universal health care, but the way in which that care is provided varies drastically

- Trade-offs between different approaches
  - Public vs. private providers
  - Single vs. multiple insurers
  - Rationing by need vs. rationing by price
  - Insurance premiums vs. funded from general taxation

Out-of-pocket charges can vary considerably

- Fraction of costs paid by individual is called the co-payment

To charge or not to charge?

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Co-payments mean individuals are partially but not fully insured

- Raises money & an attempt to deal with moral hazard problem

But charging also has downsides

- Delaying treatment → individuals present to the health system later in a worse state of health → higher costs
- Delaying or avoiding treatment can have negative externalities
- Inequity of linking access to healthcare to ability to pay

There are alternative approaches to the moral hazard problem

- Regulation: government picks treatments based on cost effectiveness
  - National Institute for Health and Care Excellence (NICE)
- Rationing of care, information campaigns, etc.

Not just a technical issue – this affects people's lives!

The NHS does a good job of protecting people from financial costs when they are ill (1)

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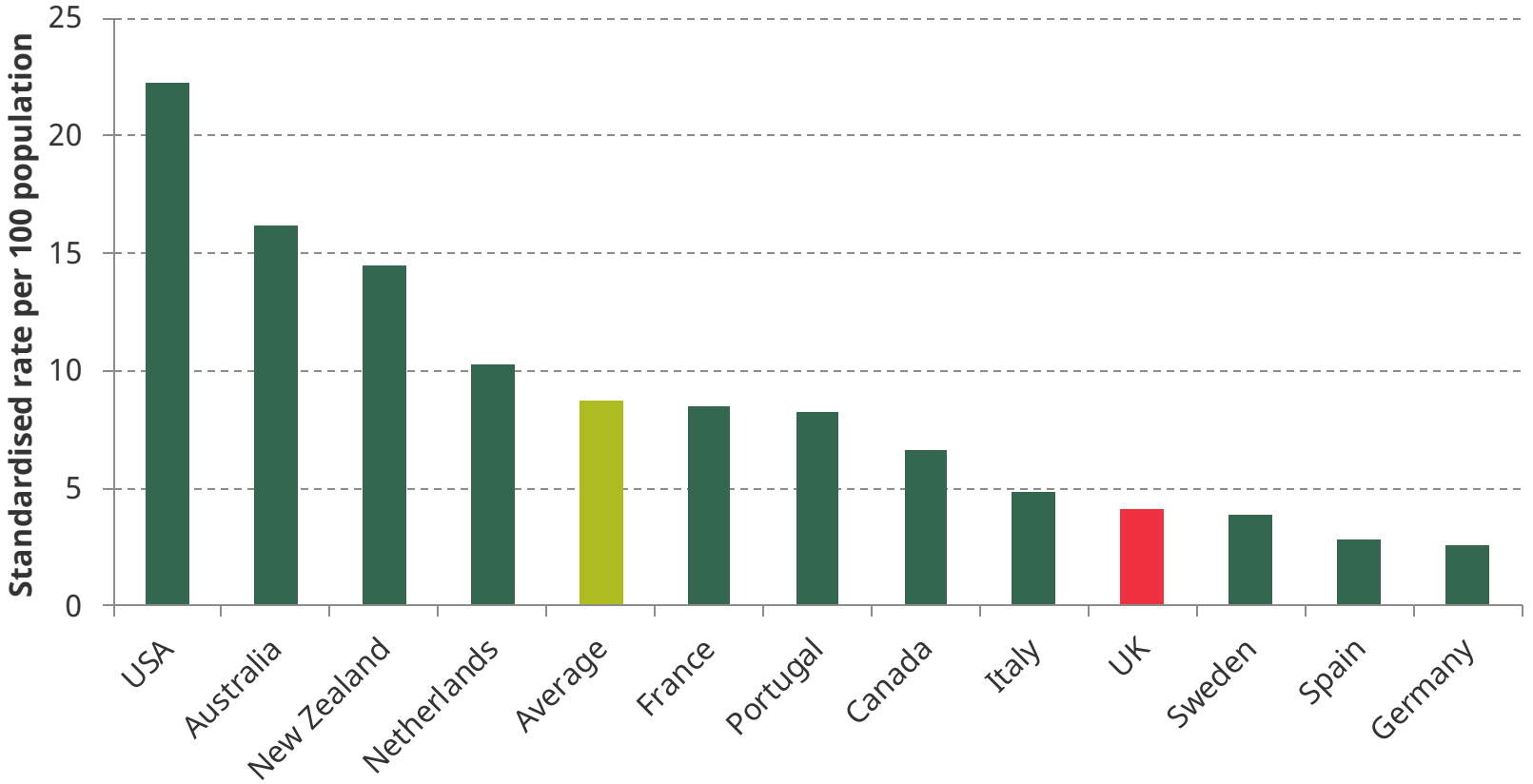
Proportion of people who skipped a consultation due to cost (2016)



Source: *How good is the NHS?,* M. Dayan, T. Gardner, E. Kelly & D. Ward, June 2018 (https://www.ifs.org.uk/uploads/HEAJ6319-How-good-is-the-NHS-180625-WEB.pdf)

The NHS does a good job of protecting people from financial costs when they are ill (2)

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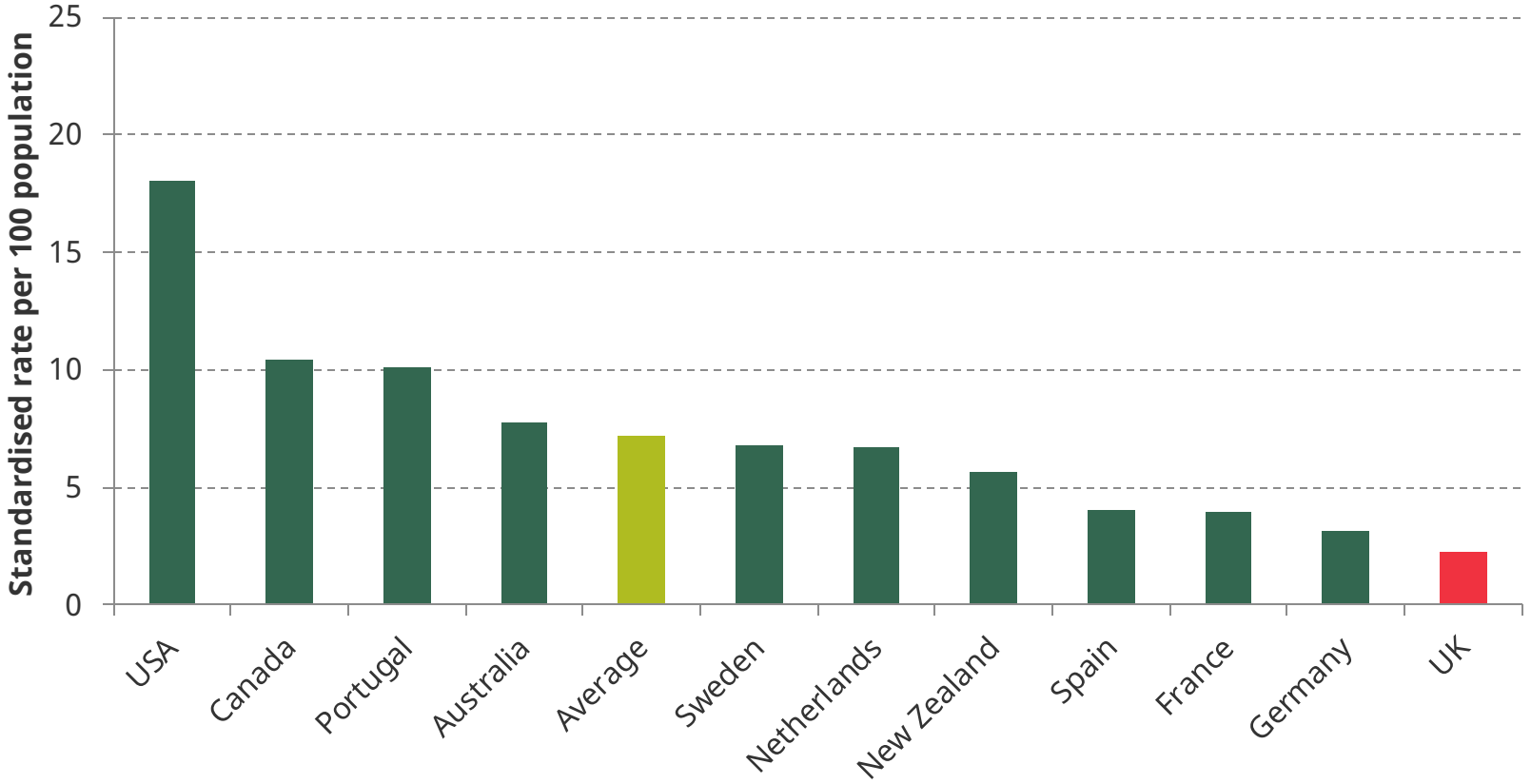
Proportion of people who skipped a prescription due to cost (2016)



Source: *How good is the NHS?,* M. Dayan, T. Gardner, E. Kelly & D. Ward, June 2018 (https://www.ifs.org.uk/uploads/HEAJ6319-How-good-is-the-NHS-180625-WEB.pdf)

The NHS does a good job of protecting people from financial costs when they are ill (3)

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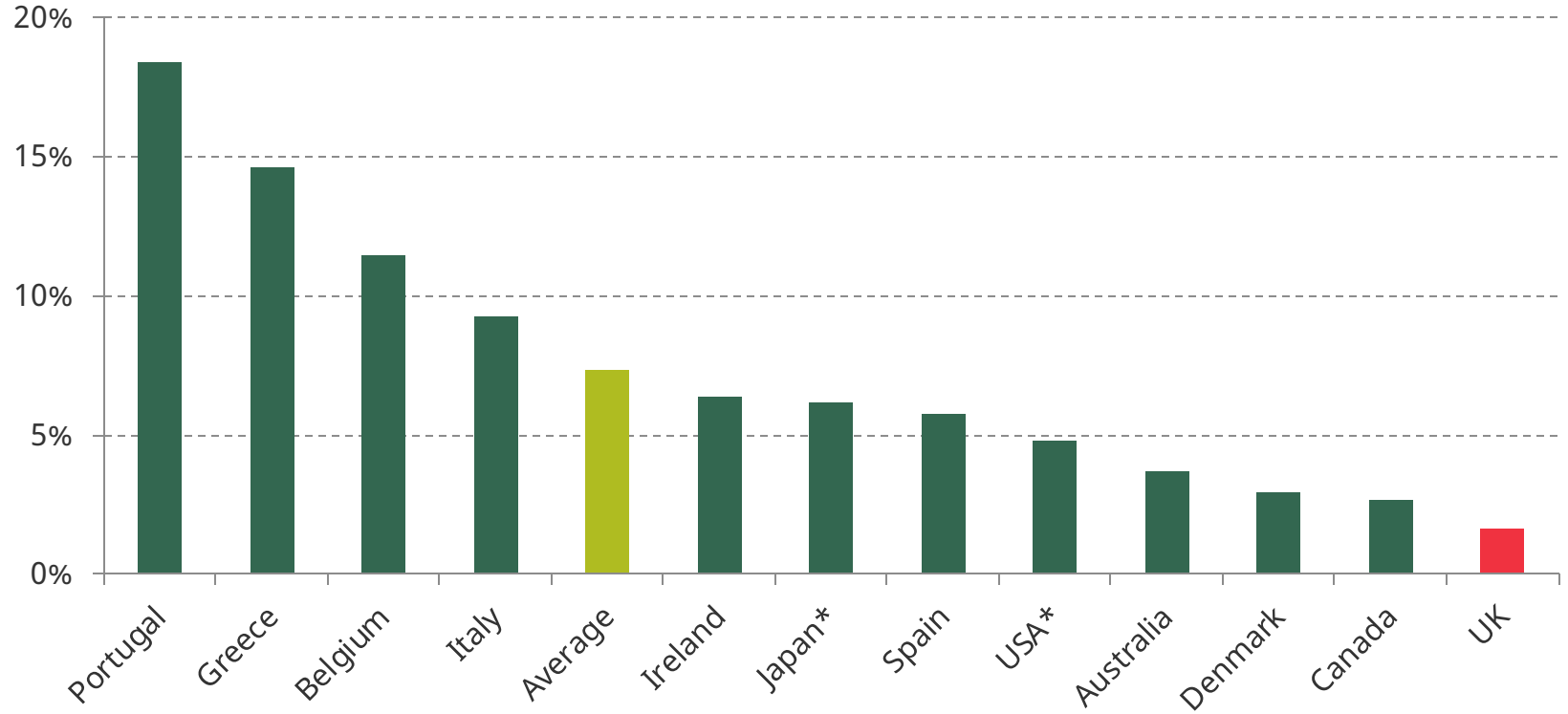
Proportion of people spending more than 10% of income on out-of-pocket health care charges (2010)



*Note: USA data 2013; Japan data 2008.
Source: *How good is the NHS?,* M. Dayan, T. Gardner, E. Kelly & D. Ward, June 2018 (https://www.ifs.org.uk/uploads/HEAJ6319-How-good-is-the-NHS-180625-WEB.pdf)

The state as social insurer

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Universal health care is just one example of social insurance

- Government interventions in the provision of insurance against adverse events
  - Transfers based on events (e.g. illness, age, disability)

- Large and growing part of government expenditure

- Other examples:
  - Unemployment insurance: risk of involuntary unemployment
  - State pension: risk of living too long
  - Disability insurance: risk of injuries/disabilities

Why social insurance?

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- Broad motivation for insurance:
  - Reduction in risk for risk-averse individuals
  - Smooth consumption across different states of the world

- Why is **government** intervention needed?
  1. Market failures
     - Asymmetric information, externalities
  2. Paternalism
     - Correct perceived individual optimisation failures (myopia etc.)
  3. Redistribution
     - Society wants to compensate high risk people, as being high risk is often not the fault of the person

Moral hazard and social insurance

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Social insurance is provided in a range of contexts

- There are common factors running through the justification for government intervention in each case
  - e.g. Adverse selection into unemployment insurance markets
    - Used to justify public unemployment insurance

- But there is also the common concern of creating moral hazard
  - e.g. With generous unemployment insurance, recipients have less incentive to find a job
    - Increases the cost of providing public unemployment insurance, which then requires higher taxes or borrowing to pay for it (at some economic cost)

Social insurance: the trade-off

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Social insurance is desirable to smooth consumption and reduce risk

Social insurance can create moral hazard – which increases the cost of providing it

Optimal policy may be to partially, but not completely, insure individuals against adverse events

Key challenge for economists is determining the optimal level of insurance benefits – see Chetty & Finkelstein (2014) for a discussion

Social care: an unsettled question

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What is adult social care?

- Broad range of non-medical services that support individuals with physical or learning disabilities, or physical or mental illnesses, that cause them to have difficulties with activities of daily living
  - Examples: housework, washing, general mobility, dressing

- Can be provided informally by family, friends or neighbours, or on a formal basis by trained professionals

- In England, publicly funded social care is **needs-tested** and **means-tested**
  - People of sufficient financial means are expected to contribute to the costs of their social care
  - No lifetime cap on the costs they can face
  - Stark contrast to how we provide health care

Social care: an unsettled question

“Our system of funding of care and support is not fit for purpose, and has desperately needed reform for many years” – Andrew Dilnot, 2011

- Multiple reviews, commissions, reports and failed attempts at reform
- The UK government doesn’t provide universal social care
- The private long-term care insurance market is extremely limited

Result: people are unable to protect themselves against the risk of catastrophic care costs

Why is the private market so limited?

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In the absence of social insurance, long-term care expenditures represent a large uninsured financial risk for older people

- Long-term care is random and costly in nature
  - Risk averse individuals would presumably find insurance valuable

- So, why is the market for long-term care insurance so limited?
  - A combination of both demand and supply side factors

Why is the private market so limited?

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Demand side

- Adverse selection
- Over-reliance on informal care from friends/family
  - Can impose negative externalities on informal carers
- Individual optimisation failures
  - e.g. survival pessimism

Supply side

- Concerns over moral hazard
- Insurers struggle to diversify risk
  - Problem of 'correlated risks' within and across cohorts

The social care problem

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The risk of developing a long-term care need is one against which people would presumably find insurance valuable

But the state doesn't provide social insurance, and the private insurance market is extremely limited (at least in the UK)

So people are left with a large, uninsured and poorly understood financial risk in old age

The system is widely acknowledged to be in need of reform

The Government has said it will publish a Green Paper on the future of social care for older people later this year

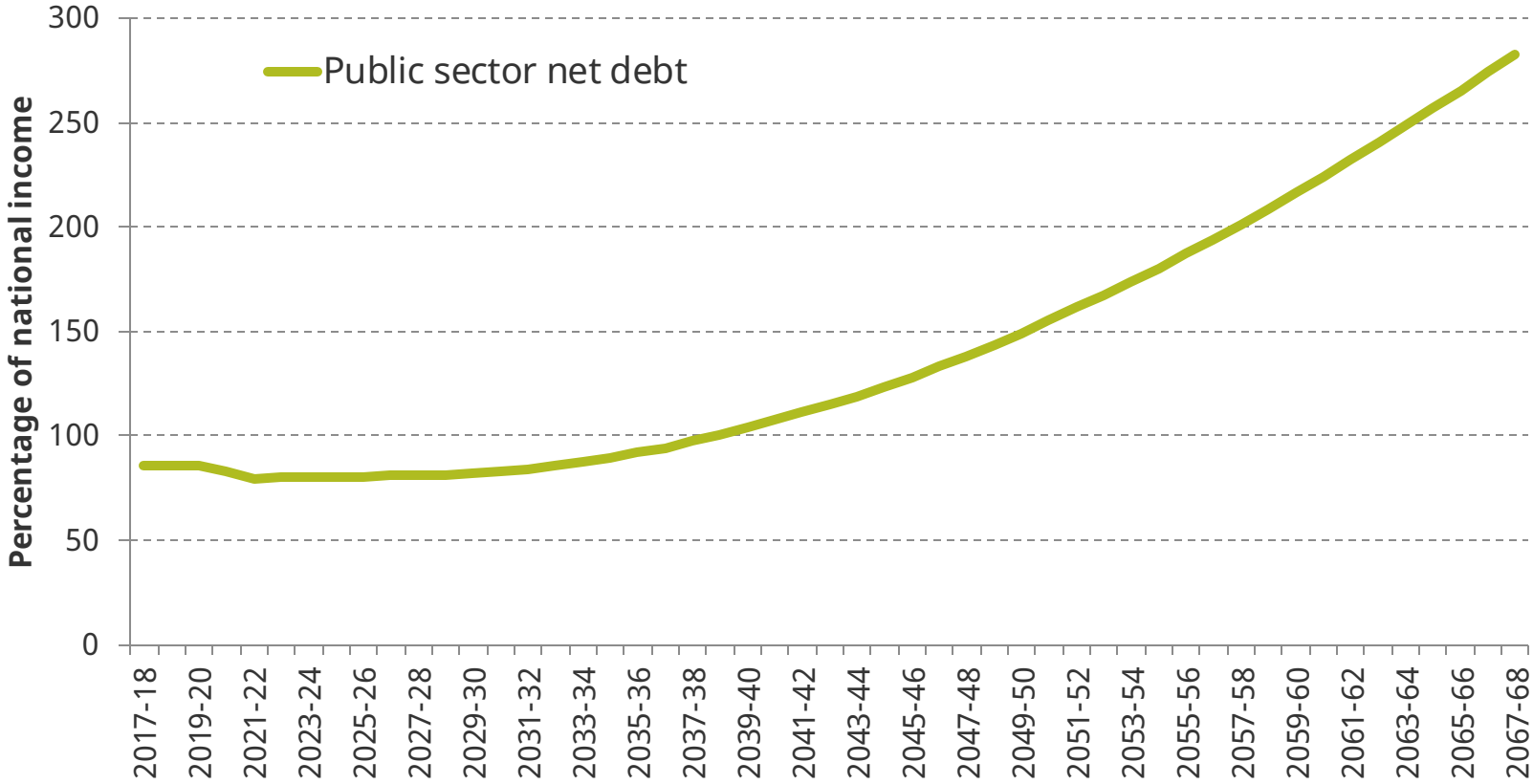
As ever, there are trade-offs to consider

- A more generous social care offer wouldn't be costless
  - Extra spending must be paid for somehow
    - Taxes? Cuts elsewhere? Borrowing?

- The public finances already face considerable long-term challenges from an ageing population

The demographic challenge (1)

OBR projections of public sector net debt with 'unchanged policy'



Source: Office for Budget Responsibility Fiscal Sustainability Report, July 2018

The demographic challenge (2)

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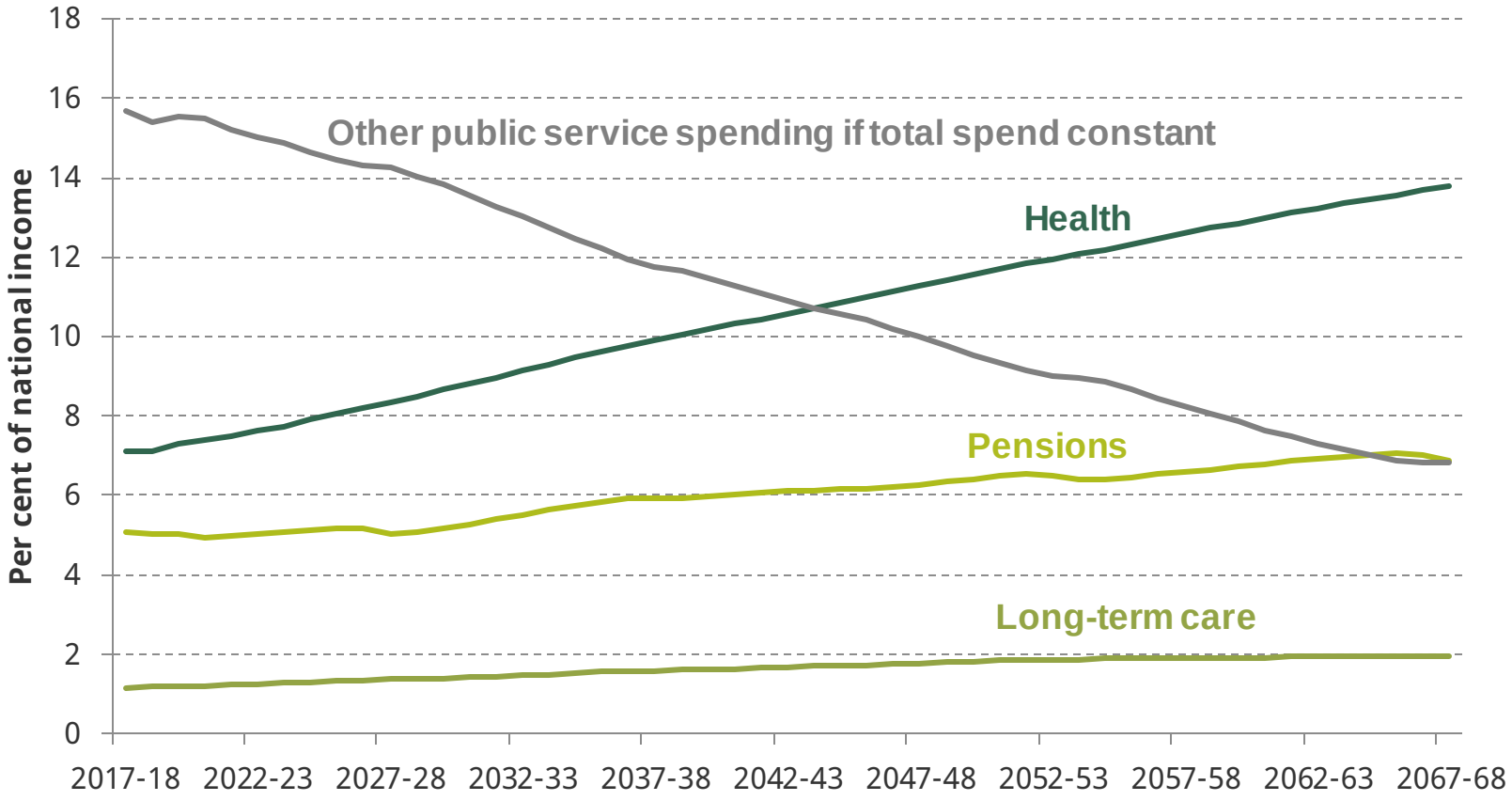
The 'graph of doom'



Source: Office for Budget Responsibility Fiscal Sustainability Report, July 2018 and author's calculations

Social care: an unsettled question

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To *what extent* should the government protect us against the risk of high social care costs in old age?

- Recall that optimal policy may be to provide partial, not full, insurance
  - But how partial should it be?

- A contentious issue – to say the least


THE DEMENTIA TAX BACKLASH

Tories' lead slips by 5% after pledge to make more elderly pay for care

But they're still 12% ahead (and voters even prefer May to Maggie)

By Simon Walters POLITICAL EDITOR

THERESA MAY'S hopes of an Election landslide hit a setback last night when a poll showed strong opposition to her plan to make more elderly people pay for care.

A Survation poll for The Mail on Sunday showed the

Turn to Page 14 >>


Middle class hit hardest by Labour plan to fund elderly care

MILLIONS FACE 10% DEATH TAX


There goes the inheritance

The Tories' social care plan is a death tax by another name


News › UK › UK Politics

Government's 'care Isa' plans will only work for minority of wealthy people, Tory MP warns

Social care: an unsettled question

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To *what extent* should the government protect us against the risk of high social care costs in old age?

- Recall that optimal policy may be to provide partial, not full, insurance
  - But how partial should it be?

- A contentious issue – to say the least

- There may be a strong case for a greater degree of social insurance, but the devil is in the detail

- Past experience suggests meaningful reform unlikely any time soon

Key things to take away

- The economics of health care is a big, important and interesting part of public economics
- Universal health care is just one example of the government providing social insurance against adverse events
- One area where people are still exposed to considerable financial risk is social care costs – watch this space!
  - But don't hold your breath…

Thank you

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