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Health, social insurance and the role of the state

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Public Economics Lecture

Today's lecture

This lecture will consider:

- The broad role of the state in providing social insurance

- The example of health care
  - Why economists care about it
  - Arguments for government intervention in health care
  - International comparisons

The state protects us against lots of different risks

The National Health Service: the risk of becoming sick

The state protects us against lots of different risks

Unemployment insurance: the risk of involuntary unemployment

The state protects us against lots of different risks

State pension: the risk of living too long

The state protects us against lots of different risks

Disability insurance: the risk of injuries/disabilities

The state as social insurer

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These are all examples of social insurance

- Government interventions in the provision of insurance against adverse events
  - Transfers typically based on events (e.g. illness, age, disability)
  - Risks are transferred to and pooled by the government

- A large and growing part of government expenditure

Why social insurance?

- 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
     - e.g. due to 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

Social insurance: common themes

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Social insurance is provided in a range of contexts

- There are often common factors running through the justification for government intervention in each case
  - With market failure, intervention can improve efficiency and welfare
  - We will consider the specific case of health care

But there are also common concerns with social insurance

- Central among these is what economists call ‘moral hazard’

Moral hazard and social insurance

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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
- **The upshot:** Moral hazard increases the cost of providing social insurance, which then requires higher taxes or borrowing to pay for it (at some economic cost)

Social insurance: the central 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

An example: health care

- Why economists care about it
- Why governments intervene

Why do economists care about health care?

- We spend a lot on health care

We spend a lot on health care: Exhibit A

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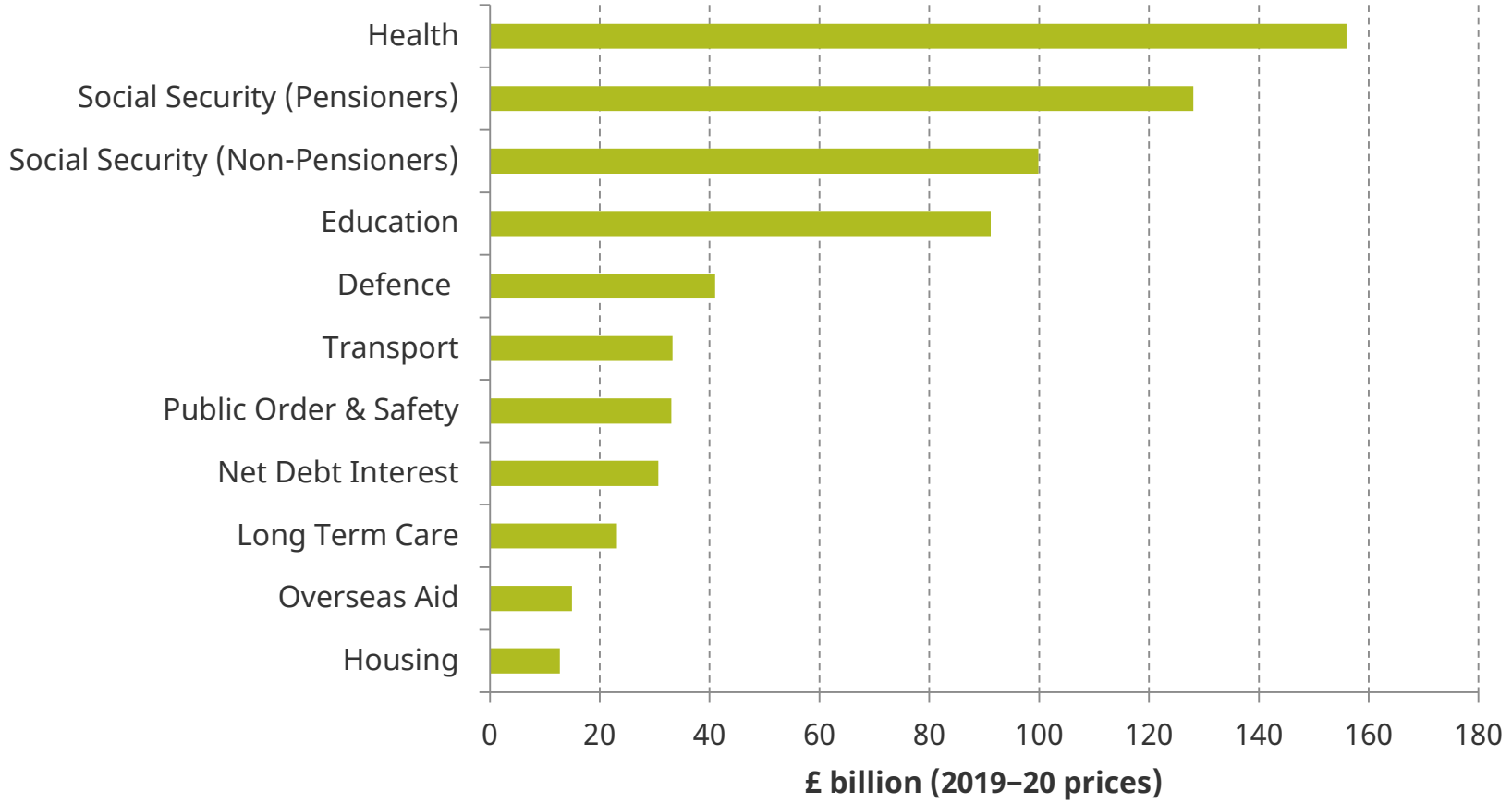
Government spending by function, 2018–19



Source: ONS and HM Treasury, Public Expenditure Statistical Analyses, July 2019 (https://www.gov.uk/government/statistics/public-expenditure-statistical-analyses-2019)

We spend a lot on health care : Exhibit B

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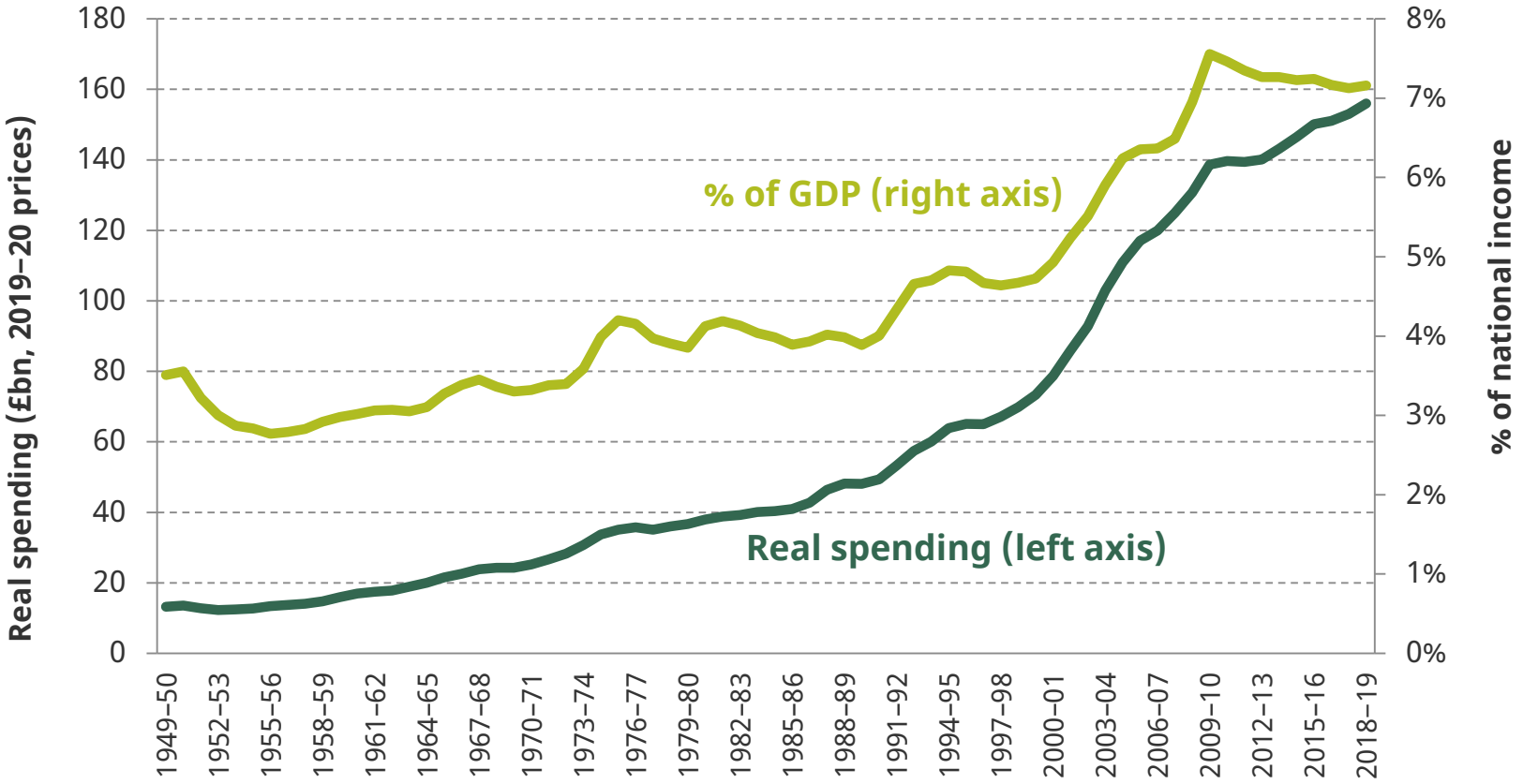
Annual UK public spending on health in real terms and as a percentage of national income



Source: Author's calculations using various HM Treasury Public Expenditure Statistical Analyses, Office for Budget Responsibility Public Finances Databank and HM Treasury June 2019 GDP Deflators

We spend a lot on health care now…

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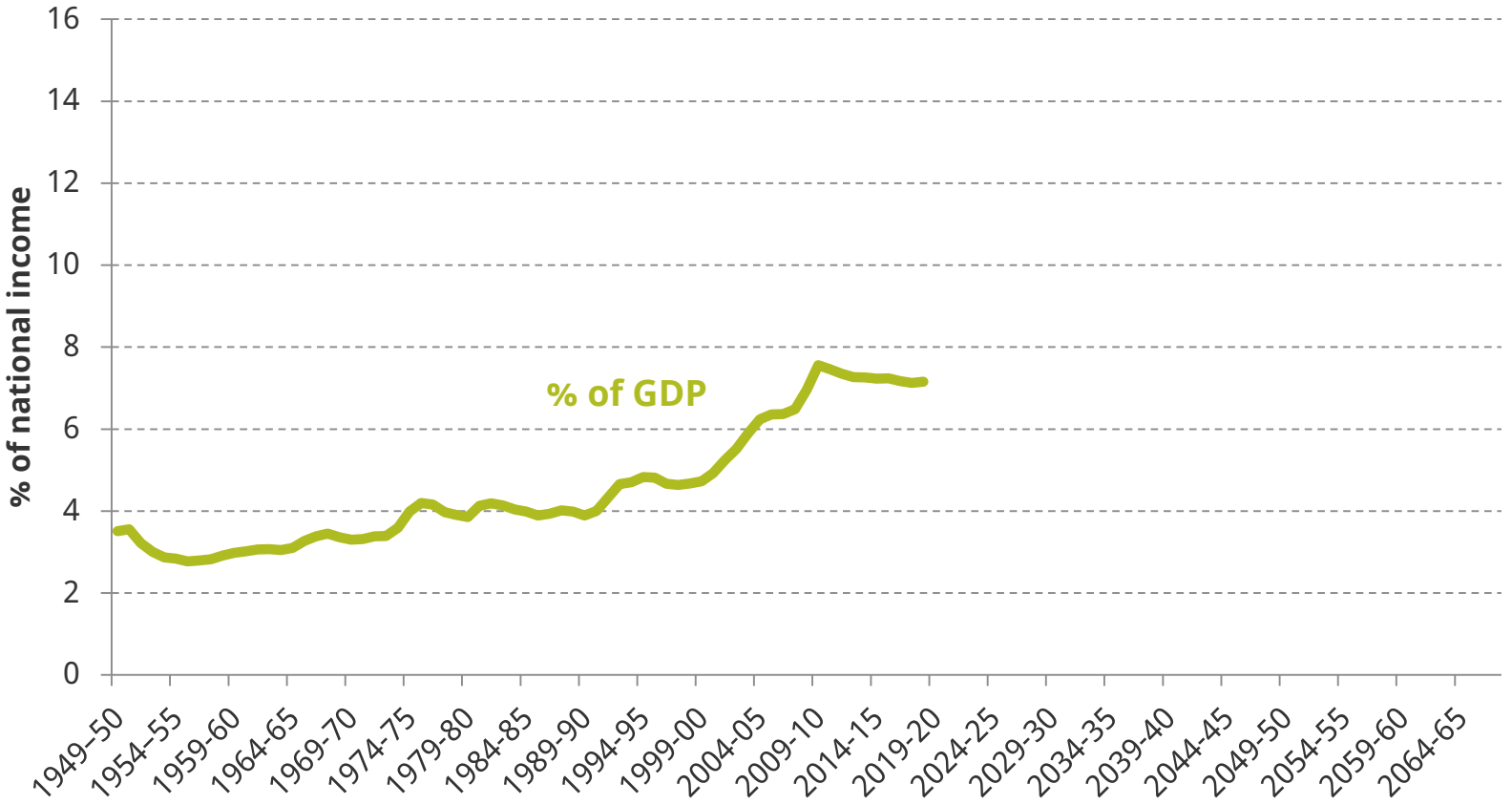
Historic health spending as % GDP



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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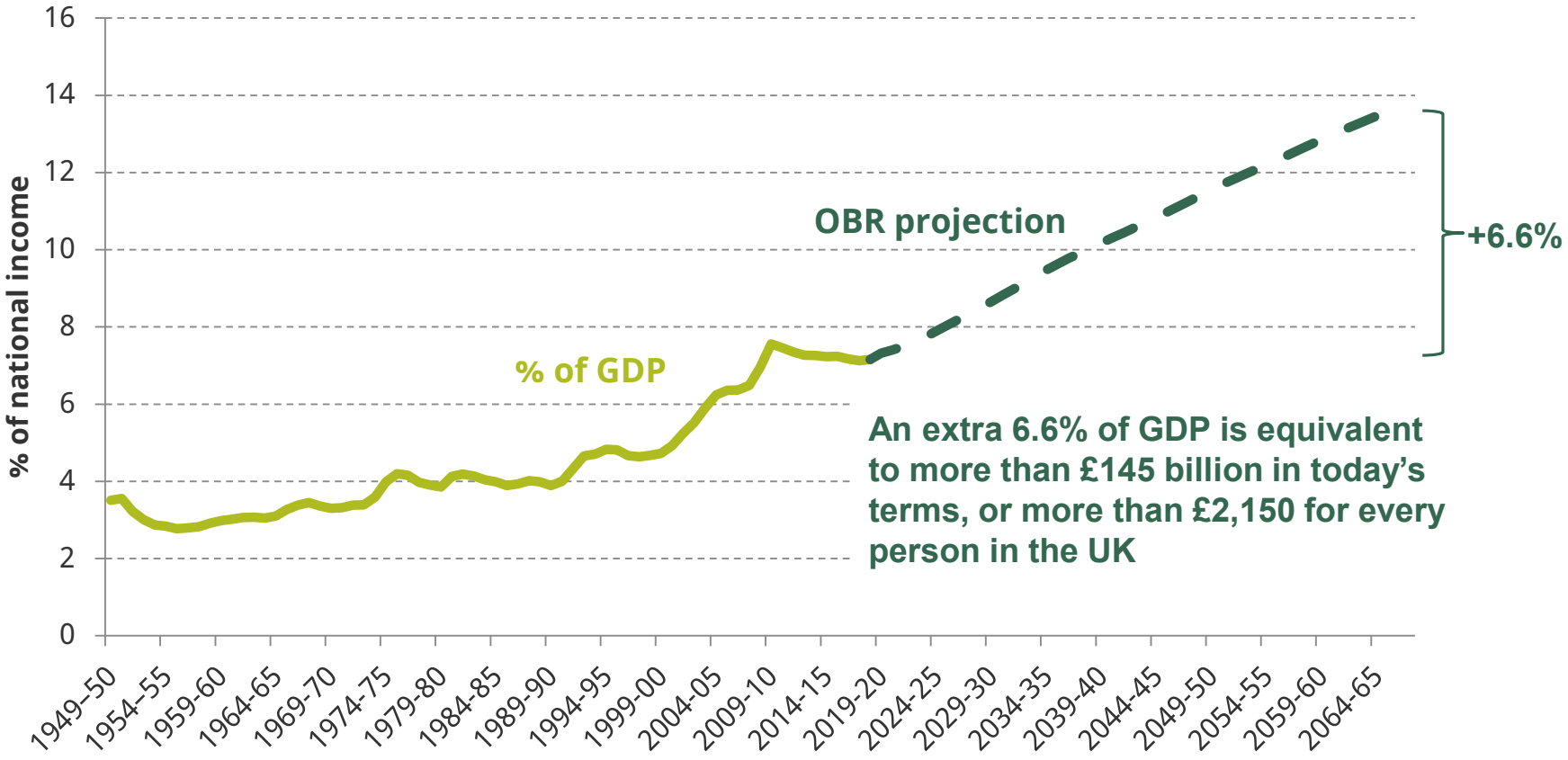
Historic and Office for Budget Responsibility's projected health spending as % GDP



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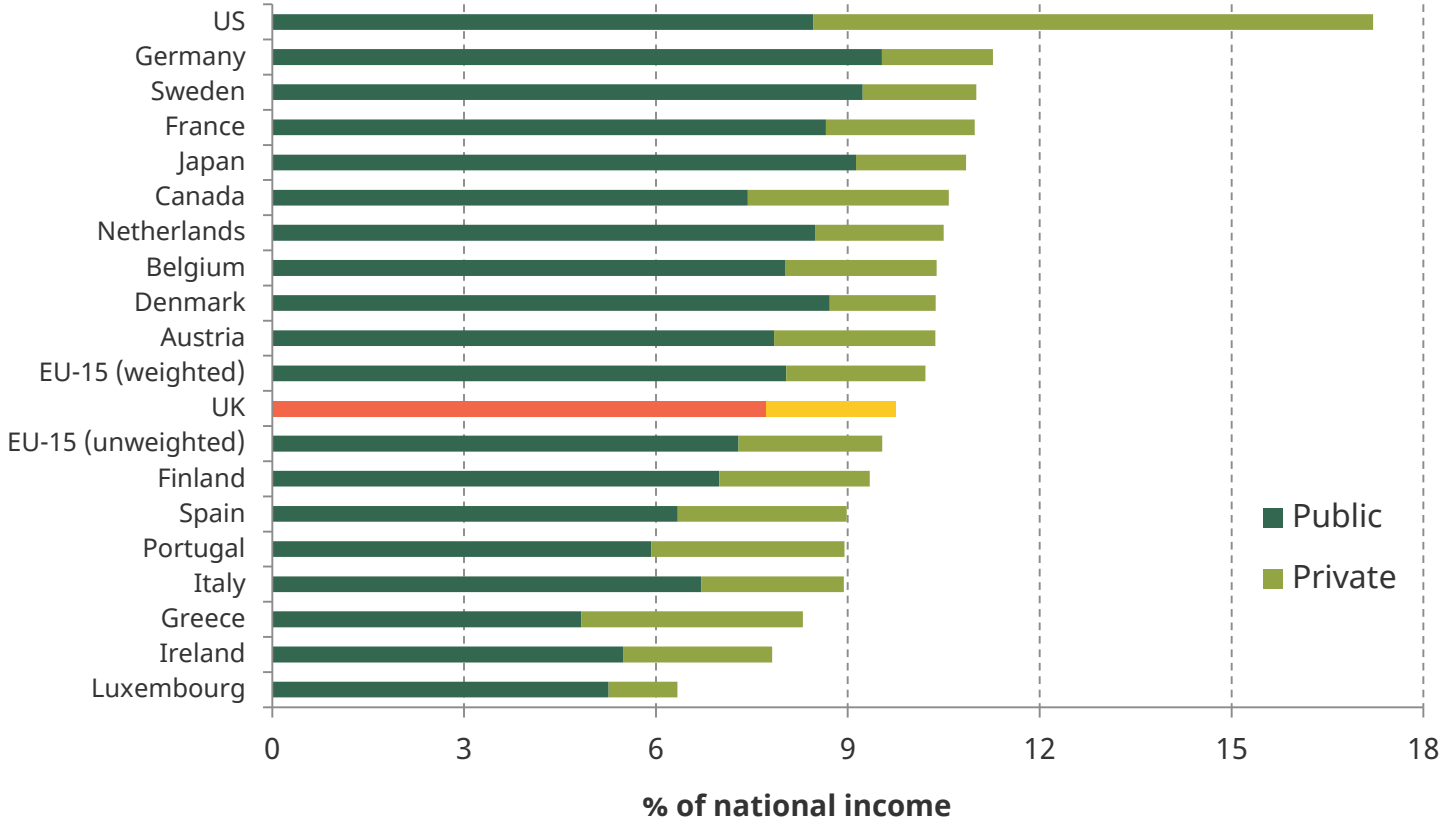
Public and private health spending as a percentage of national income in 2016



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 care?

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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 care?

- 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

The National Health Service is highly popular

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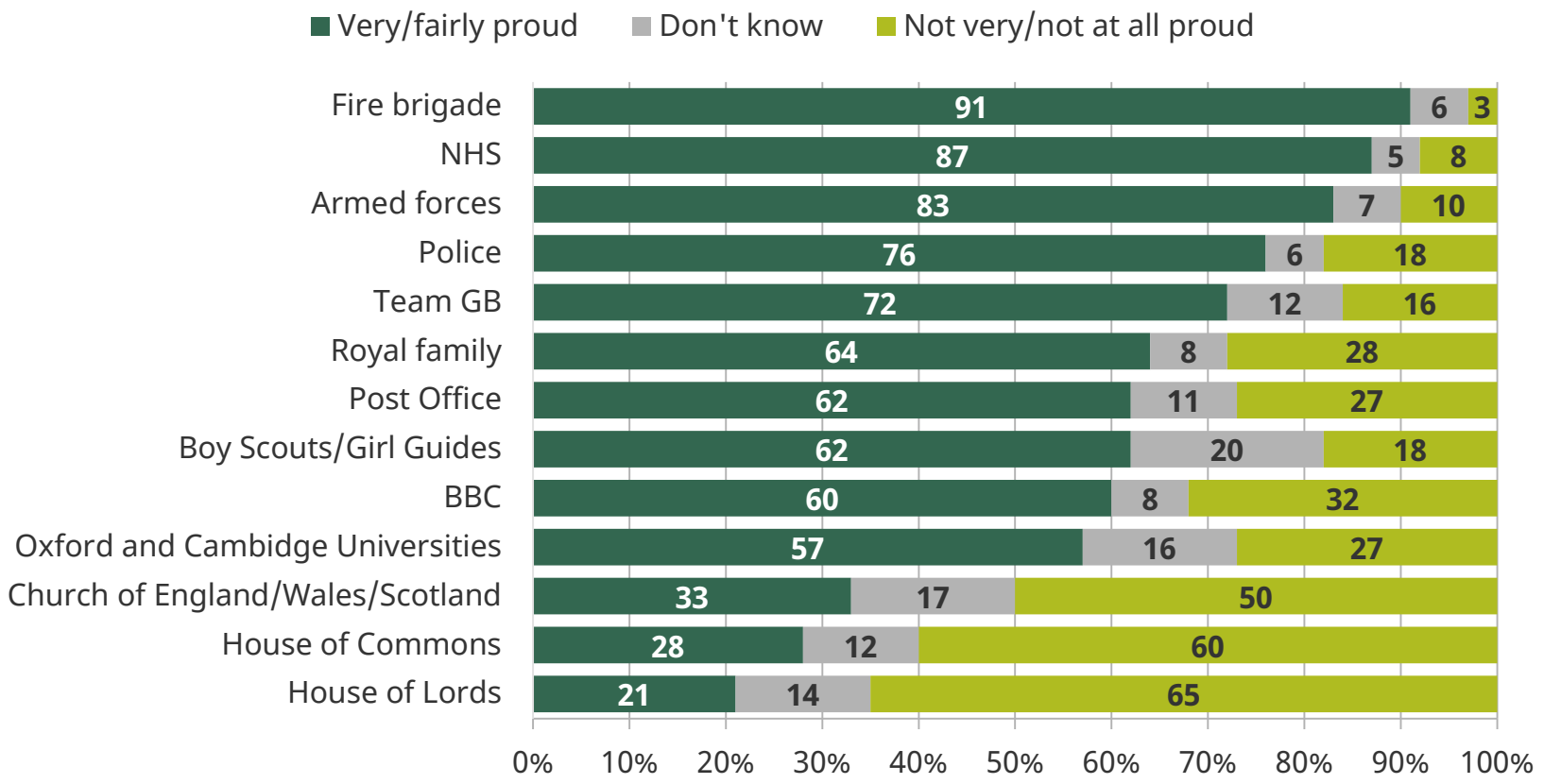
To what extent would you say you are proud of each of the following institutions?



Source: YouGov, July 2018, https://yougov.co.uk/topics/politics/articles-reports/2018/07/04/nhs-british-institution-brits-are-second-most-prou

Why do economists care about health care?

- 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
  - Brits consistently report health as being one of the most important issues facing the country (typically second only to Brexit)
  - Economists can make a valuable contribution to a high-profile debate

Why do economists care about health care?

- 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? Why does the government have to get involved?

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

- With full health insurance, people might behave in such a way that makes them more likely to need (expensive) health care
  - Prior to hospital: bad diet, dangerous sports, smoking, etc.
  - In hospital: excessive number of medical tests, demanding expensive treatments, staying for longer than needed

- The result: higher costs for insurers

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

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- ~~A large number of buyers and sellers~~
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- Private costs = social costs

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Externalities

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- ~~A large number of buyers and sellers~~
- ~~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
  - Recall: we might want to partially, but not completely, insure individuals against 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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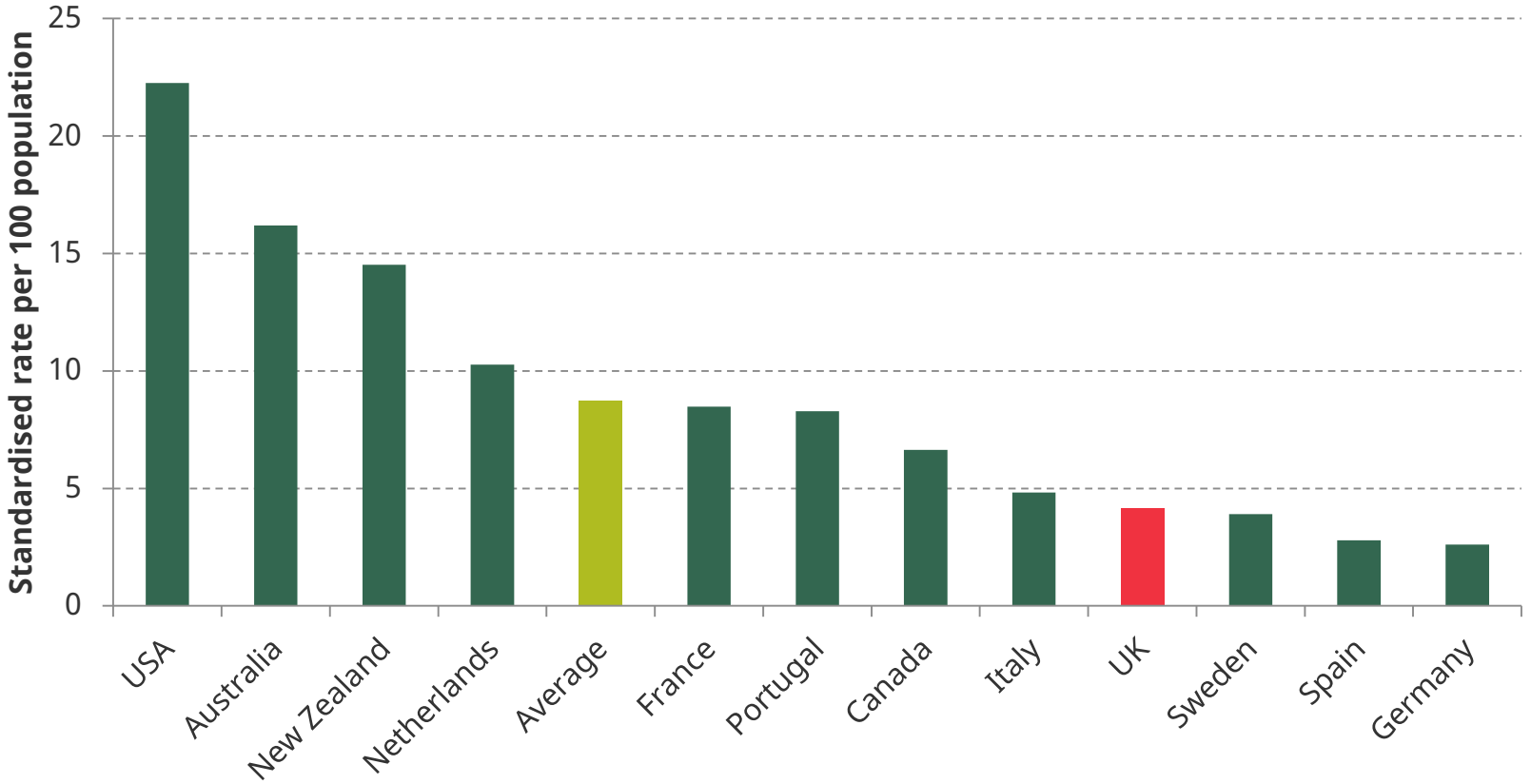
Proportion of people who skipped a consultation due to cost (2016)



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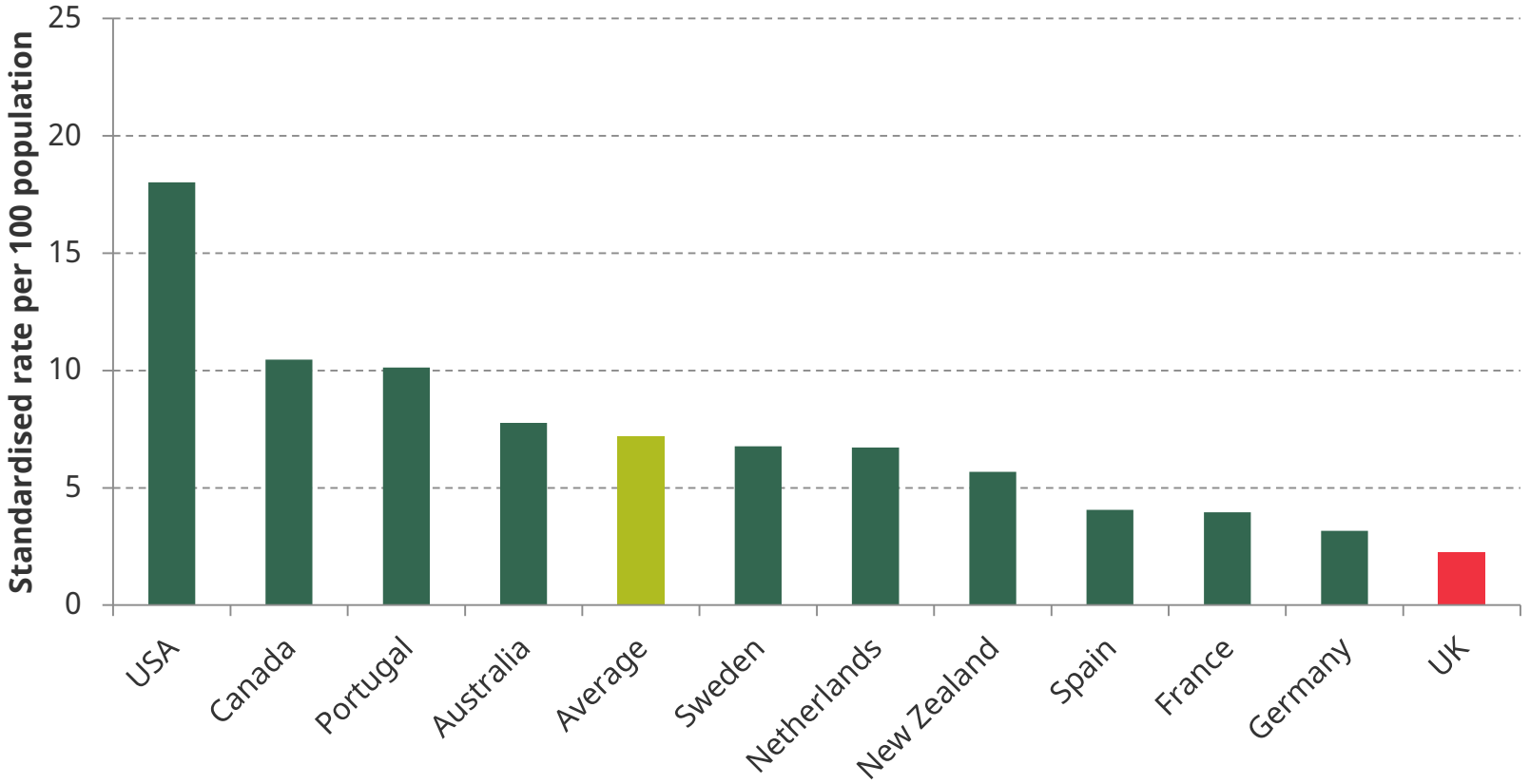
Proportion of people who skipped a prescription due to cost (2016)



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

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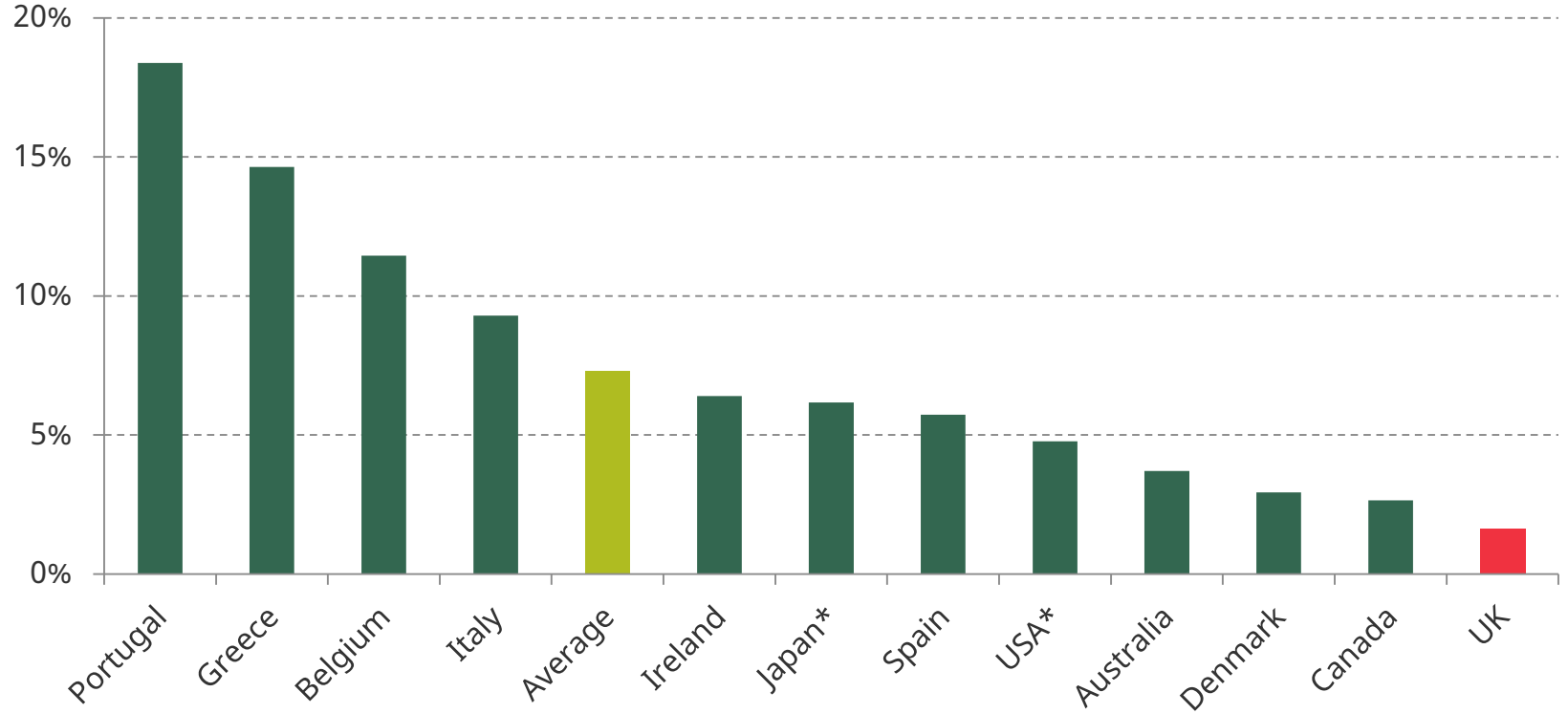
Proportion of people spending more than 10% of income on out-of-pocket health care charges (2010)



*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)

Key things to take away

- The government steps in to provide social insurance against a range of adverse events
- Universal health care is just one example of this, but a particularly prominent one
- The way in which universal health care is organised and provided varies drastically across countries – with important consequences

Thank you

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