

THE UNIVERSITY *of York*



Fuel poverty across the European Union

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- Only two member states have an official definition of fuel poverty
- Ireland: “the inability to afford adequate warmth in a home, or the inability to achieve adequate warmth because of the energy inefficiency of the home”
- United Kingdom: “a fuel poor household is one which needs to spend more than 10% of its income on all fuel use and to heat its home to an adequate standard of warmth”



Main causes of fuel poverty

- A complex interaction between household income, energy efficiency and fuel prices
- Other contributory factors can include living in rented accommodation, living in a rural location, under occupation of a large property and the fuel type used



- Living in a fuel poor household can result in:
- An increased likelihood of suffering from influenza, heart disease and strokes
 - A growth of fungi and dust mites, increasing the risk of asthma
 - Increased use of health services: Liddell (2008) found infants in fuel poor households had a 30% greater risk of admission to hospital



Consequences of fuel poverty

- Fuel poverty can also affect mental health and wellbeing: a study of fuel poor households found some respondents linked their depression and social isolation to fuel poverty (Harrington et al, 2005)
- Children in fuel poor households have been found to have poorer weight gain, a “heat or eat” effect (Liddell, 2008).
- The most extreme consequence of fuel poverty is Excess Winter Mortality, a phenomenon found across the EU, particularly in Southern Europe (Healy, 2003b)



- Cost benefit analysis of fuel poverty reduction in the UK found for every £ spent, a return in NHS savings of 12p can be expected from children's health gains, and a return of 42p for adults and children combined (Liddell, 2008: 2)
- A fuel poverty scheme evaluation in Northern Ireland found a significant decrease in householders reporting arthritis/rheumatism post retrofit of energy efficiency measures (Shortt and Rugkåsa, 2007)



- The benefits of improved health from installing energy efficiency measures will also have a positive impact on education and work.
- A randomised control trial of heating interventions in New Zealand found that school absences reduced by an average 21% for asthmatic children whose household received a heating system (Free et al, 2010)



Previous EU fuel poverty work

- European Fuel Poverty and Energy Efficiency (EPEE) project in 2009, examined fuel poverty in the United Kingdom, Spain, Italy, Belgium and France
- Estimate between 50 million and 250 million people suffer from fuel poverty across the EU
- Healy and Clinch (2002) conducted a cross-national comparison of fuel poverty between 1994-1997 in EU14 and found high rates of fuel in Southern Europe



My research

- Aims to address the gap in knowledge by answering the research questions, how is fuel poverty conceptualised, and what levels of fuel poverty exist across the EU?
- The research is two-fold: a qualitative content analysis of relevant policy documents across each member state and a secondary data analysis of EU Statistics on Income and Living Conditions



- Content analysis of the first NEEAPs revealed huge variation in the recognition of household energy efficiency importance
- Ireland, United Kingdom, Netherlands and Slovenia displayed the highest levels of understanding the importance of energy efficiency, and recognised the human and social impact of energy inefficient housing
- Lithuania and Belgium displayed moderate levels of understanding



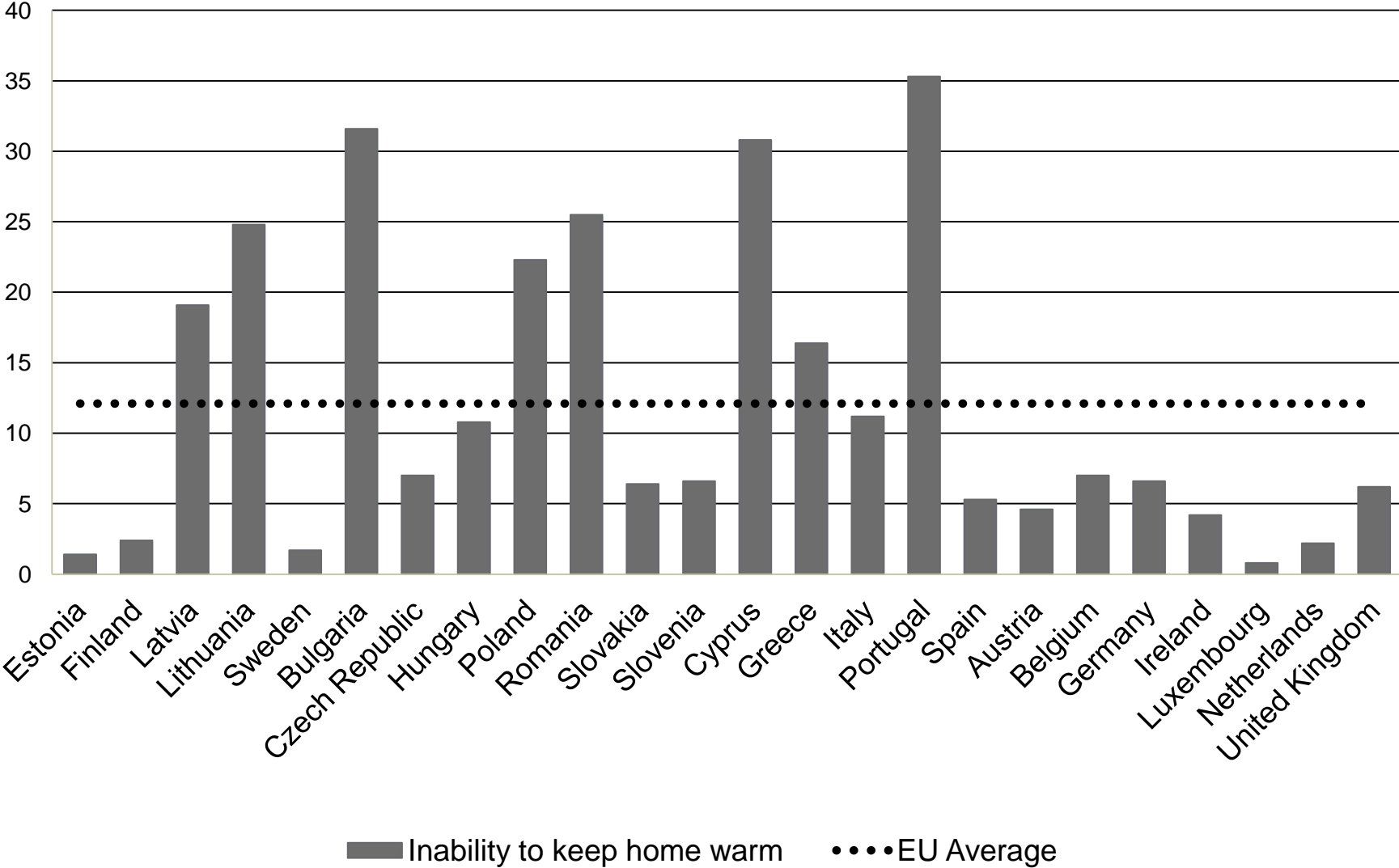
Quantitative data analysis of the EU Statistics on Income and Living Conditions has been conducted using three proxy indicators of fuel poverty:

- inability to adequately heat the home
- presence of leaks, damp or rot
- arrears on utility bills



- The main proxy indicators asks if households are able to keep their home adequately warm
- As can be seen in the following graph, the highest levels in inability to heat the home are found across Eastern and Southern Europe

Households (%) unable to pay to keep their home adequately warm

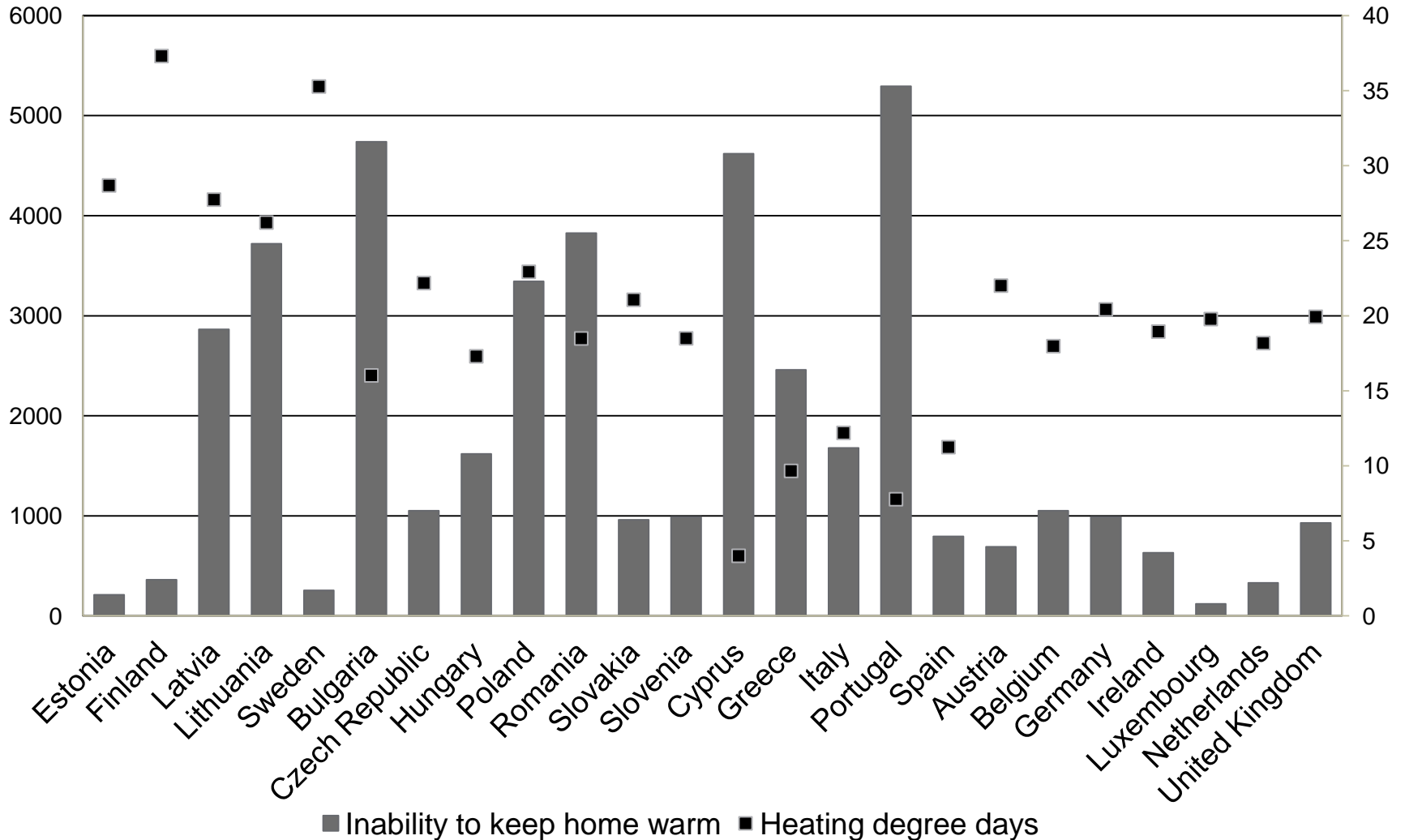




Factors beyond cold climates

- Cold climates are not the only factor for fuel poverty
- The following graph displays the annual heating degree days plotted against levels of inability to heat home
- Countries with relatively few heating degree days are exhibiting high levels of inability to heat the home, such as Cyprus and Portugal, whilst countries with the most heating degree days are showing the lowest levels of inability to heat the home
- This indicates there are factors beyond cold climates, such as energy efficiency levels

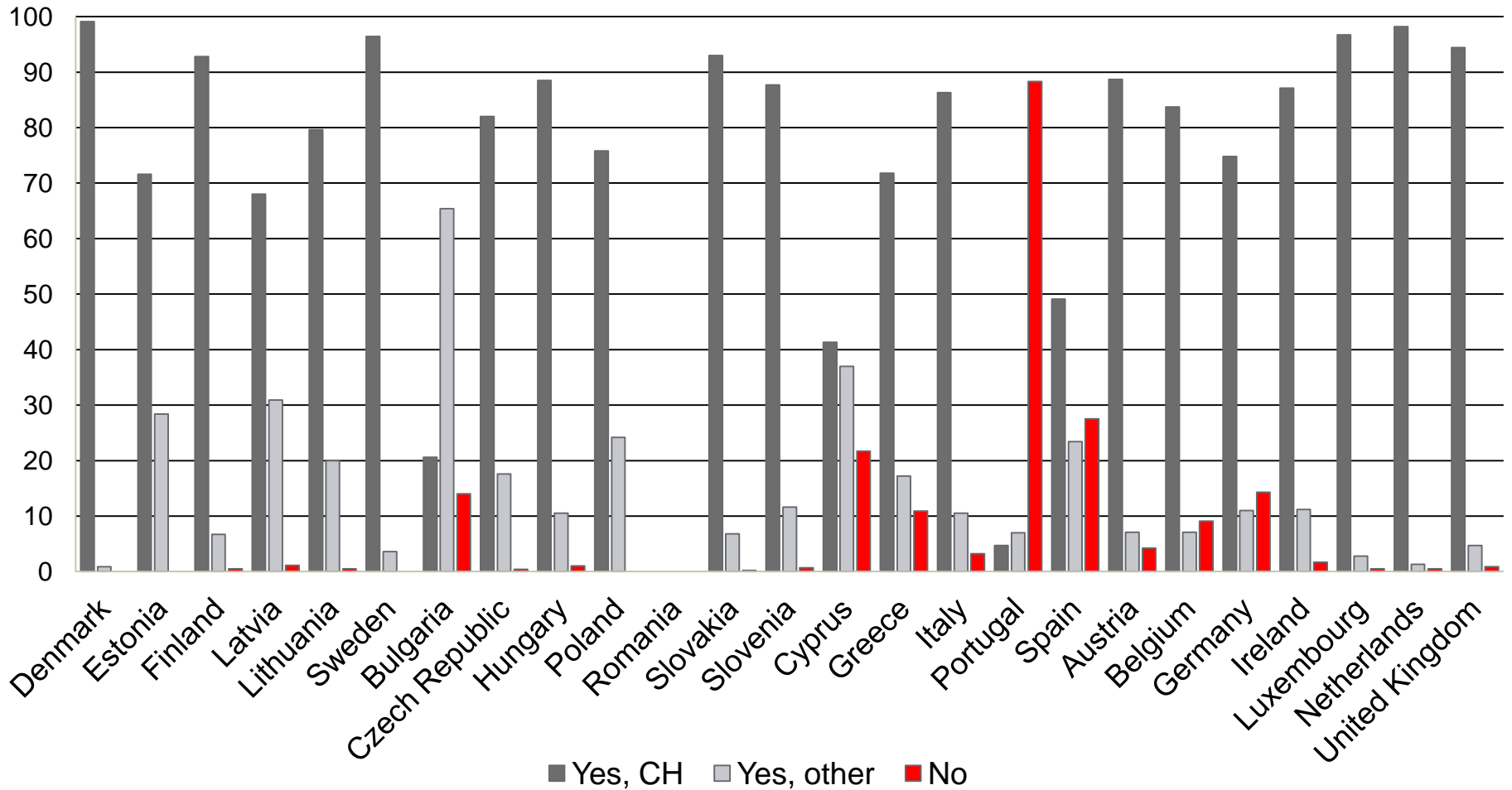
Households (%) unable to pay to keep their home adequately warm and annual heating degree days



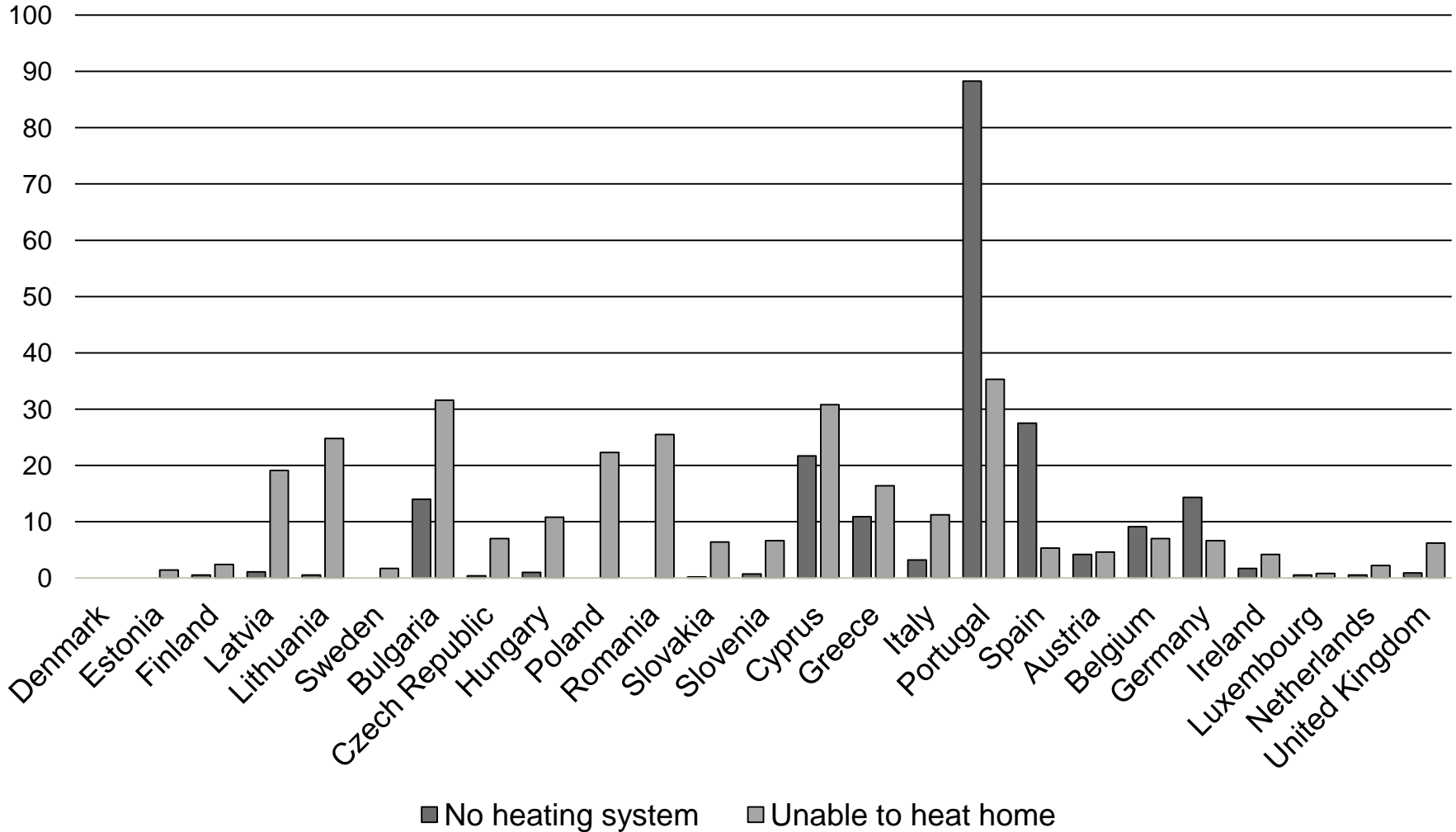


- A lack of adequate heating facilities may account for some of the inability to heat the home
- Data regarding the extent of central heating across the EU shows some countries have extremely low levels of central heating systems

Households (%) with central heating, an alternative form of heating or no heating system



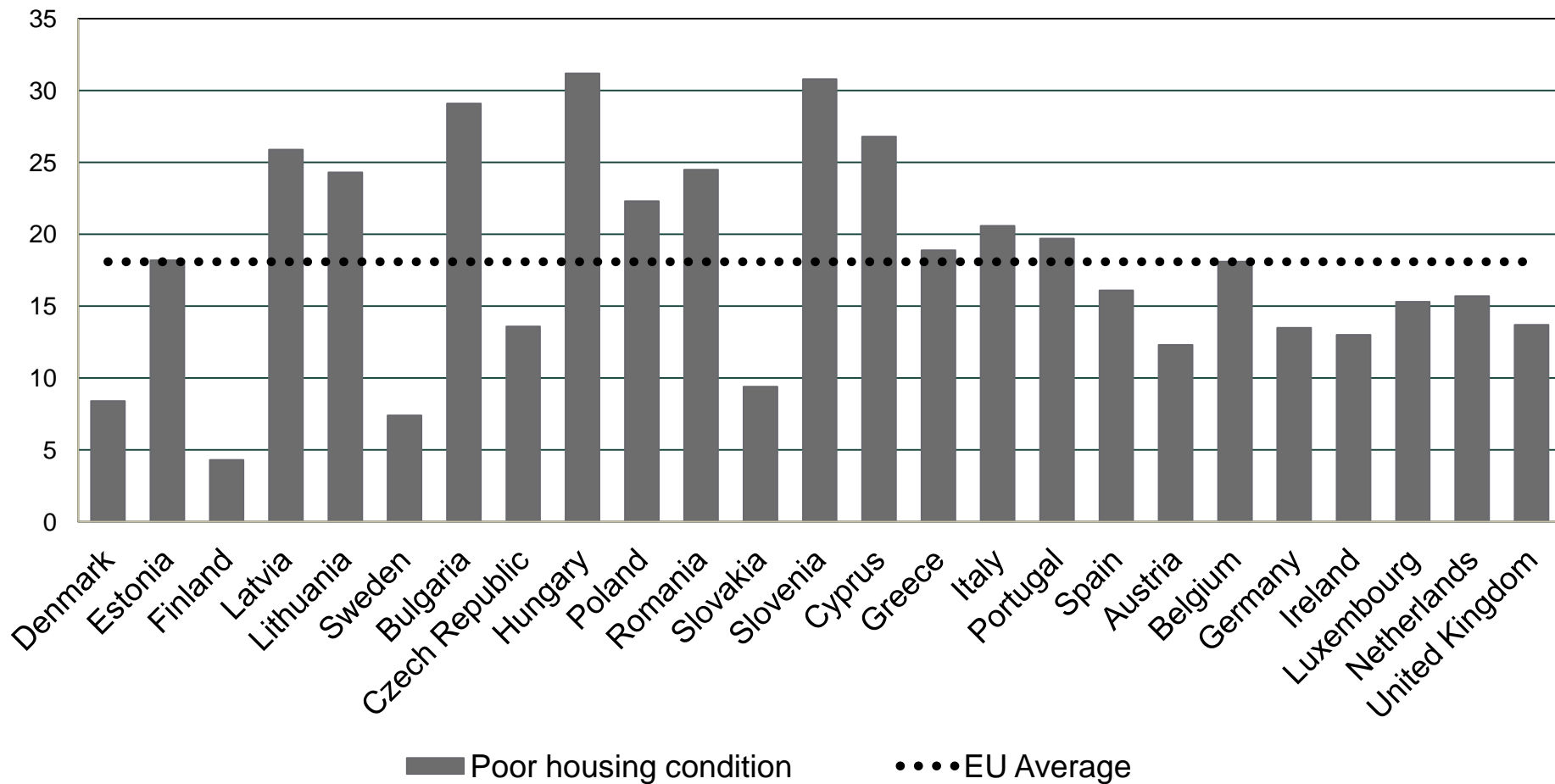
Households (%) without a heating system and unable to heat the home





- The second proxy indicator determines if housing contains a leaking roof, damp walls or rotten windows
- May be an indicator of consistent under-heating of a property and/or issues around ineffective heating systems
- Relatively high levels of poor housing condition are found across the EU, but highest levels are found in Eastern Europe

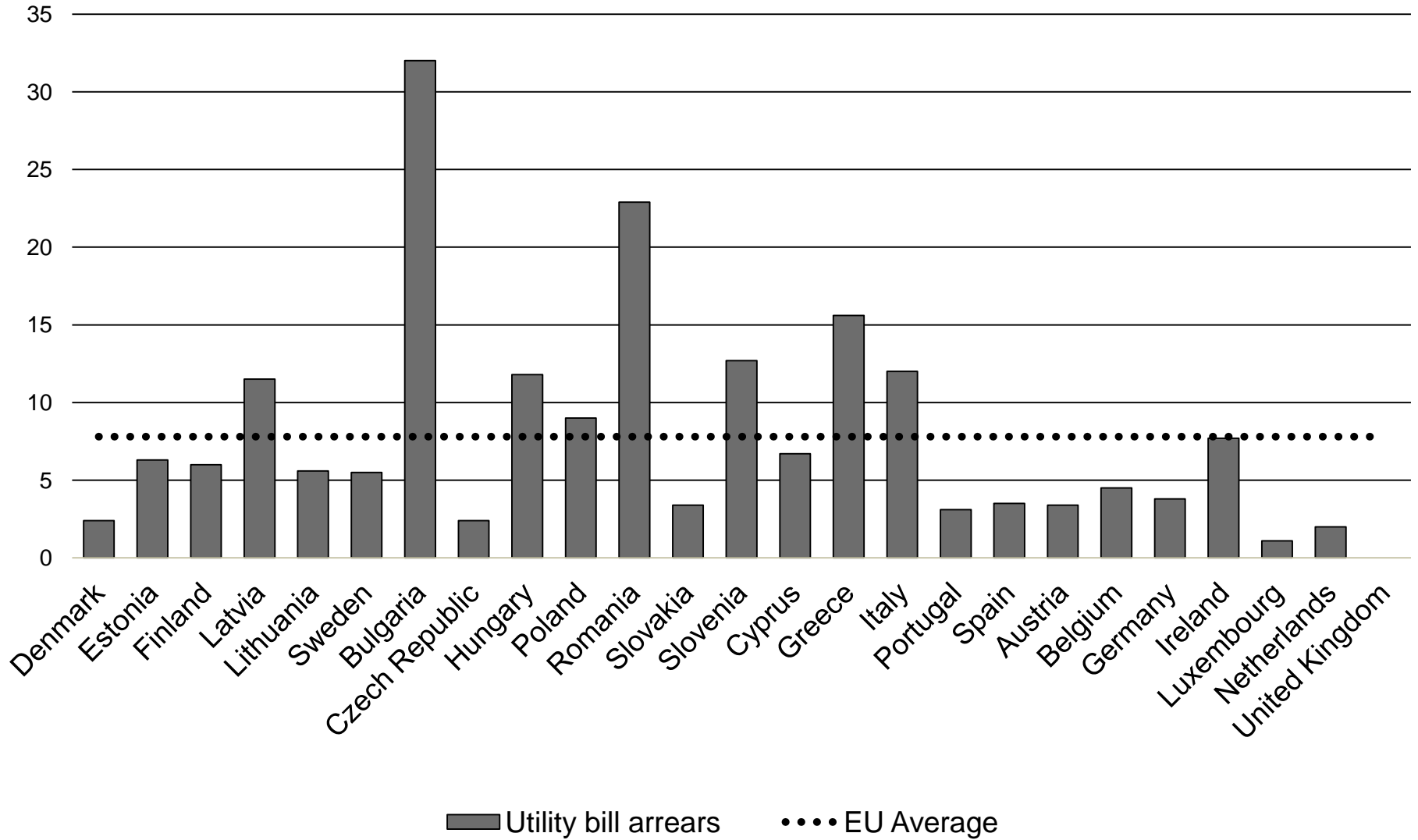
Households (%) reporting the presence of leaks, damp or rot in their dwelling





- The final proxy indicator determines if a household has experienced arrears on utility bills in the last 12 months
- Experiencing financial difficulty with utility bills indicates a household is at risk of under heating their property and subsequently experiencing fuel poverty
- Some caution should be applied to this variable as it applies to all bills, including water and waste disposal, and it shows the UK as having no arrears, which is not true

Households (%) reporting arrears on utility bills within last 12 months





- At present, the 2009 European Council Directives on common rules for the internal market in gas and electricity acknowledge energy poverty is a growing problem and require ‘affected’ member states to develop national action plans
- However, in light of the high levels of fuel poverty, this needs strengthening to define what fuel poverty is and to provide criteria for an affected member state



Thank you for listening, any questions?



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