

# Trillion dollar question

Sir, Philip Hammond's widely criticised recent letter [5 June 2019] to Theresa May explains that a net-zero carbon target will cost the UK £1 trillion pounds. There is an easy way to check on the Chancellor's pronouncement.

All that is necessary is to multiply three numbers together. First, the population of the UK is 67 million. Secondly, published data (Source: BEIS, ICAO & IMO) place average UK carbon dioxide emissions per person at 7.7 tonnes per year. Thirdly, multiply by the cost of avoiding the emission of one tonne of carbon dioxide. I use a market price of £200 per tonne. This is from detailed cost-benefit analyses which show that the best climate-change strategy is to reduce emissions while simultaneously pursuing programmes to help society cope with modest warming. The ideal trade-off occurs when the two approaches are deployed roughly equally. £200 a tonne stimulates this optimum course of action. If we spend more, we cause unnecessary economic damage, if we spend less, we fry.

Hence  $67 \text{ million} \times 7.7 \times £200 = £0.1 \text{ trillion pounds}$ . Of course, that sum is for only one year. The UK's new legally binding target is for emissions to taper off progressively by 2050. Adjusting for this 30-year ramp, my estimate rises to between £1 and 2 trillion.

In short, the UK will need to spend well over £1 trillion to counter its fair share of the global climate-change problem. If the Chancellor can really hit net-zero for £1 trillion, then his vision is the bargain of the century.