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Submission to the Food, Diet and Obesity Committee - The case for taxes and subsidies as part of a comprehensive obesity strategy.

- *This submission addresses question 8, "Policy tools that could prove effective in preventing obesity amongst the general population, including those focussed on the role of the food and drink industry in tackling obesity."*
- *It is based on previous and ongoing work by Professor Thijs van Rens, Professor Roberto Pancrazi and Dr Marija Vukotic, all of the University of Warwick Department of Economics.*

An important theme of my research explores whether poor diets and obesity are largely due to individual choice, or to the wider environment, which can narrow the choices available to people depending on their income and where they live.

Effective public policy depends on a clear understanding of the balance between these factors. If poor dietary choices largely reflect personal preferences, then there is limited opportunity for policy intervention. If, however, environmental conditions carry the biggest influence, then carefully designed interventions may succeed in improving diets.

With Warwick colleagues I have sought to quantify the impact of market distortions on food prices. We conclude that Government intervention to address market distortion, through taxes and subsidies, has the potential to make rapid and sustained improvement in people's diets.

In 2018 my evidence to the House of Commons Health Select Committee focused on health taxes. Based on new work briefly introduced in that submission, I would now like to make the case for subsidy. While taxes may be politically difficult, a subsidy is likely to be more acceptable and can be seen as the most market-based, least invasive intervention available to policymakers.

Taxing and subsidising to tackle obesity has been politically infeasible for some time but these "big guns" must now be considered as part of the policy toolkit - obesity is a massive public health problem which will not be solved by friendly advice alone.

1. The case for health taxes

In my written evidence submitted to the House of Commons Health Committee inquiry, *Childhood obesity: Time for action (Eighth Report of Session 2017–19)* the case was made for introducing health taxes with the goal of changing behaviour. ⁱ

The evidence submission acknowledged that, since poorer households tend to consume more unhealthy foods, a health tax is regressive in terms of income but progressive in terms of potential health gains.

The arguments presented in that submission remain valid and I recommend them to the Committee.

2. The case for subsidy

While my 2018 evidence focused in large part on making the case for health taxes, I also presented early findings from research in the US, which found that prices of healthy food relative to unhealthy food are higher in poor counties, and that inequality in diet due to price differences could be eliminated almost entirely by introducing a subsidy on healthy food.

Colleagues and I have continued to develop this research into the important determinants of our diets, and whether there is a role for policy to improve what we eat.ⁱⁱ

Analysis of a US dataset containing detailed information about quantities and prices of food purchases between 2004-2014 by around 60,000 householdsⁱⁱⁱ, enabled us to determine whether cost or preference was the main driver for purchasing choices.

We are now in a position to conclude that a government subsidy of 25% of the cost of fruit and vegetables would improve fruit and veg intake by as much as 15%, closing the gap between the actual and recommended intake of fruit and vegetables by one third.

Using the US data:-

- We established that fixed costs in the supply chain play a much larger role in the price of fruit and vegetables than in prices of other foods. Fixed costs make up between 20 and 43 per cent of the price of fruit and vegetables, while for other foods the proportion is less than one per cent.
- The result this is that fruit and vegetables are 40% more expensive than they would be in an efficient market, even abstracting from health and environmental externalities.
- Ultra-processed food items are cheaper to produce, distribute and sell than fruit and vegetables– such food is cheap because it has a

long shelf-life, it can be bought in bulk, produced in bulk, and delivered when it is cheap to deliver it.

- In counties with below-average income levels, the price differential between healthy and unhealthy foods is greater, because in these locations demand for healthy food is low, so that the fixed costs have to be distributed over a smaller base, resulting in higher prices – the market failure increases health inequality.

We then evaluated the impact of this price distortion on diets.

- The price distortion is responsible for around one-third of the gap between actual and recommended intake of fruit and vegetables.
- Our analysis showed that if the market were working correctly, consumers at all income levels would buy 15% more fruit and vegetables than they currently do, which would constitute a huge gain for public health.
- A flat-rate subsidy on healthy food that is financed by small income tax increase comes very close to the theoretical optimal fiscal intervention, and results in substantial welfare gains. Based on our estimates, a subsidy of 25% would eliminate the market distortion and require only a 0.0482% increase in income tax. The combination of subsidy and slight tax increase would make all US residents better off.
- Extrapolating to the UK, I estimate that, given that UK supermarkets sell around £10 billion of fresh produce per year, a 25% subsidy would cost government £2.5 billion per year. In comparison, the NHS is estimated to have spent £6.1 billion on overweight and obesity-related ill-health in 2014/15 and will potentially spend £9.7 billion by 2050, while the overall cost of obesity to wider society is estimated at £27 billion.

We believe that our analysis shows that there is a strong case for government intervention, and in particular for a population-wide subsidy on fruit and vegetables.

3. Implementation and Evaluation

In theory, the most effective means of tackling the distortion would be an individually tailored package of subsidy on healthy food and tax on unhealthy food at household level, in the real world this would be impractical to implement.

Our model simulation indicate that a 25% subsidy would be optimal, but for pragmatic reasons we are not recommending for that to be implemented straight away.

A cautious approach would be to introduce a lower subsidy, say 10%, and then evaluate its effects with a view to raising (or lowering) the subsidy as appropriate.

Such a staged implementation insures against unexpected side effects and allows the development of a solid evidence base. However, based on our analysis of the US data, I am confident to recommend that a modest subsidy on fruit and vegetables will certainly be a step in the right direction and create net benefits for everyone in the UK.

REFERENCES

<https://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Health%20and%20Social%20Care/Childhood%20obesity/written/81721.html>

ii How Distorted Food Prices Discourage a Healthy Diet', by Roberto Pancrazi, Thijs Van Rens and Marija Vukotic, Science Advances, March 2022. DOI:10.1126/sciadv.abi8807

iii The Nielsen Consumer Panel (Homescan) dataset

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