

Section A		
Institution: The University of Manchester		
Unit of Assessment: 16 (Economics)		
Title of case study: Shaping the design of economic policy to reduce diet-related disease		
Period when the underpinning research was undertaken: 2012 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name:	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Rachel Griffith	Professor of Economics	2010 - present
Period when the claimed impact occurred: August 2013 – December 2020		
Is this case study continued from a case study submitted in 2014? No		
Section B		
1. Summary of the impact		
<p>Reducing the prevalence of diet-related diseases, such as obesity and liver cirrhosis, is a targeted aim of the UK and other governments. Professor Rachel Griffith's research has had impact through providing new analysis, methods and evidence to inform decision makers and the public about the design and effectiveness of policies that are intended to meet this target, most notably corrective taxes and advertising restrictions. Her work has directly influenced the methods used and the actions taken by policy makers in both the Department of Health and Social Care (DHSC) and HM Treasury (HMT). Specifically, her work has had impact on recent policy proposals to restrict advertising of high in fat, salt and/or sugar (HFSS) foods, and provided evidence to inform the design of alcohol and soda taxes.</p>		
2. Underpinning research		
<p>The economic rationale of policies that aim to reduce the prevalence of diet-related disease is to reduce the social costs (externalities) that are generated by excess consumption. Excess consumption arises from people making bad choices over what foods and drinks they purchase and consume. A well targeted policy will reduce excess consumption, and so reduce these social costs. A policy that is poorly targeted will raise the costs of consumption that is not excess, and so will not reduce social costs and might reduce social welfare. In order to design policy that is well targeted it is important that we understand the reasons why people are making bad food and drink choices, and how these choices vary across different individuals, and within individuals over time and in different situations.</p> <p>During her tenure at the University of Manchester Professor Rachel Griffith has directed a programme of research at the Institute for Fiscal Studies (IFS) that has studied the design, implementation and impact of a range of policy interventions that aim to reduce diet-related disease. The key members of her team at IFS are Martin O'Connell, Kate Smith and Rebekah Stroud, who have all been involved in the research and dissemination activities.</p> <p>This research has had a direct impact on the Chancellor's and HMT's decision making on alcohol and sugary drinks taxes, and on the methods and analysis that policy makers in</p>		

the DHSC use to understand the exposure of children to advertising of HFSS foods, and on their interpretation of the evidence on sugary drinks taxes. The body of work has also had an impact by making evidence available to other stakeholders, enabling them to engage in informed debate with policy makers.

The main contributions of this work have been: (i) to develop and apply new measurement and econometric methods that have been important for understanding how well targeted policies are, (ii) to apply these methods to new longitudinal micro data, generating new insights into the ways that policies affect individual's food and drink choices, and (iii) to provide robust evaluation of the welfare implications of potential policy reforms.

An important methodological contribution of the work studying consumer decision making in food and drink markets has been to allow for more flexible and richer variation in preferences across individuals than in previous work. In papers [1], [2] and [5] Griffith and co-authors apply these methods using new longitudinal micro data. The methodological advances are shown to be important in identifying how people and firms will respond to policy, and thus to understand how well targeted different policies are at reducing excess consumption and social costs. These academic contributions have led to a better understanding of how policies affect different people (by age, geographic location, income and patterns of past consumption). Specifically, the findings show:

- soda taxes are well targeted at reducing sugar consumption in young people, but not that effective at targeting heavy sugar consumers [1];
- existing UK alcohol taxes are poorly designed to reduce alcohol consumption amongst heavy drinkers [2];
- the minimum unit price on alcohol introduced in Scotland is well targeted at heavy drinkers, but results in a large loss in tax revenue; a well-designed tax reform could be as well targeted and yet increase tax revenue [extension to [2] published in policy brief <https://www.ifs.org.uk/publications/15183>].

Griffith also made methodological contributions to the measurement of advertising exposure, developing methods now used by DHSC, and applied them to new micro data, to show that:

- children still view a large amount of advertising for HFSS foods, despite existing restrictions to advertising of HFSS foods screened during children's TV shows [3].

[4] and [5] consider individuals' behaviours when their preferences might be distorted due to the effects of advertising, or other time inconsistencies. The research design allowed flexible preference heterogeneity to accommodate these effects and showed that:

- banning advertising of HFSS foods on TV would lead consumers to pay more attention to the adverse health consequences of these foods, but would also probably lead to increased price competition, which would lower prices and so increase consumption. This means that banning advertising is likely to be less effective at reducing consumption than anticipated [4], implying that a combination of restrictions and taxes is needed;
- people suffer from self-control problems when making food purchasing decisions, implying that policies that encourage them to buy healthier foods and discourage them from buying unhealthy food could reduce obesity [5].

In a separate workstream, Griffith has also showed that changes in the way that people live and work has led to a shift away from home produced food and has contributed to rising obesity [6].

This research has been funded by two ERC Advanced grants, and responsive mode grants from the ESRC. In 2018 Professor Griffith's team at IFS was jointly awarded the interdisciplinary National Institute for Health Research (NIHR) Obesity Policy Research Unit ([OPRU](#)), with researchers at the Institute for Child Health and the Behavioural Science and Health department at UCL. The OPRU is one of the main bodies providing evidence and advice directly to policy makers at the DHSC and Public Health England (PHE), based on world-class research.

3. References to the research

- [1] Dubois, P., **Griffith, R.** and O'Connell, M. (2020). "How well targeted are soda taxes?" *American Economic Review*, 110(11), 1-44.
<https://doi.org/10.1257/aer.20171898>
- [2] **Griffith, R.**, O'Connell, M. and Smith, K. (2019) "Tax design in the alcohol market" *Journal of Public Economics*, 172, 20-35.
<https://doi.org/10.1016/j.jpubeco.2018.12.005>
- [3] **Griffith, R.**, O'Connell, M., Smith, K. and Stroud, R. (2018). "Children's exposure to TV advertising of food and drink", report for Department of Health,
<https://www.ifs.org.uk/publications/13019>
- [4] Dubois, P., **Griffith, R.** and O'Connell, M. (2018). "The effects of banning advertising in junk food markets", *Review of Economic Studies*, 85(1), 396 – 436.
<https://doi.org/10.1016/j.euroecorev.2020.103478>
- [5] Cherchye, L., Smith, K., O'Connell, M., **Griffith, R.**, De Rock, B., and Vermeulen, F. (2017). "A new year, a new you? Heterogeneity and self-control in food purchases", *European Economic Review*, 127, 103478.
<https://doi.org/10.1016/j.euroecorev.2020.103478> ; also VoxEU,
- [6] Griffith's Presidential Lecture at the EEA in 2015, published in **Griffith, R.**, Lluberas, R. and Luhrmann, M. (2016). "Gluttony and sloth: calories, labour market activity and the rise of obesity" long-run changes in bodyweight, diet and labour market activity", *Journal of the European Economic Association*, 14(6), 1253-1286.;
<https://doi.org/10.1111/jeea.12183> also VoxEU,

4. Details of the impact

This research has directly informed policy makers at HMT and the Chancellor's thinking about restrictions to advertising and decisions to reform alcohol duties. It has also had direct impact on the methods of analysis that members of the Obesity Team in DHSC use to measure exposure to advertising, the results of which have fed directly into proposals for new restrictions on advertising. In addition, this work has had an impact by enabling other stakeholders to engage in informed debate with policy makers.

The most direct evidence of these impacts on policy makers is contained in two testimonial letters. The Head of Excise Branch at HMT [A] says,

"Although you have worked on several areas, I would like to highlight in particular your work on the optimal design of alcohol taxes. The IFS report has affected our policy thinking very positively, providing useful balance to other stakeholder perspectives. It directly contributed to the Chancellor's decision both to launch a review of the alcohol duty system at the 2020 Budget and to focus the review on economic rationality."

"More generally, I would like to observe that the work produced by you and your colleagues is regarded as the 'gold standard' for external academic evidence.

"I can also attest that your research on both long-term changes to diets and the impact of restriction of television advertising for 'junk food' has been directly used in discussions with the Chancellor about addressing obesity in the last six months. For individual academic papers to be highlighted in this way is unusual and a testament to their quality and high level of policy relevance."

The Team Leader and Policy Manager in the Obesity Team at DHSC [B] say,

"The Government approach to meeting our ambition to halve childhood obesity is evidence led. Therefore, we as a team rely on strong, credible evidence to make the case and understand the impact that policy interventions will have on children and obesity levels.

"The research of Professor Griffith demonstrating the extent of child exposure to HFSS advertising on TV has been a key contributor to building this evidence and understanding to support the Government decision making process. The methodology and approach designed by Professor Griffith was used as the benchmark for Government's own research into exposure across TV and online to inform the consultation process. This work has made a significant contribution to our work on introducing further advertising restrictions on HFSS product advertising.

"Professor Griffith's review of the evidence on the effects of soft drinks taxes has provided valuable insights on the impact of the Government's Soft Drinks Industry Levy as well as wide ranging international policies. It has helped to develop our understanding of important contextual factors and the effectiveness of fiscal levers to reduce sugar consumption which is an integral part of the Government's Obesity strategy."

In addition, this body of work has had an impact on policy by making evidence available to other stakeholders, enabling them to engage in informed debate. This has been through evidence presented to Parliamentary Committees, presentations to the Scottish Government Strategy Unit, the Westminster Food & Nutrition Forum, the National Heart Forum, and via the media.

Kate Smith gave oral evidence on minimum unit pricing of alcohol to the Health and Social Care Committee in January 2018 [C]. She wrote an expert article for the BBC "Will paying more for alcohol and fizzy drinks make us healthier?" (1 May 2018), which explained to a wide non-technical audience how minimum pricing and taxation policies provide different incentives and revenue effects [D]. The piece has been viewed over 650,000 times and is used by the BBC to inform its audiences about ongoing debates on these policies.

Professor Griffith's team at IFS has also published a number of policy briefs, including 'Fixing the UK's alcohol taxes' (20 March 2017), and 'Design of optimal corrective taxes in the alcohol market' (31 January 2017), and a comment on, 'Proposed 50p minimum unit price for alcohol would increase prices of around 70% of off-trade alcohol purchases' (15 December 2017) and 'Tackling heavy drinking through tax reform and minimum unit pricing' (20 November 2020) [E].

Research findings on 'Public policy to lower sugar intake' were presented by Martin O'Connell at the Westminster Food & Nutrition Forum (27 April 2017), and were published in a number of policy briefs, including: "Sweetening the sugar tax?" (16 December 2016), "Is the new soft drinks levy well designed?" (24 March 2016); and "Using taxation to reduce sugar consumption" (24 March 2016) [F].

Griffith and colleagues' research documenting the nature and extent of advertising of HFSS foods in the UK and showing that, despite existing regulations limiting the ability of firms to advertise HFSS foods during children's TV programme schedules, children are still exposed to a large amount of this advertising [3], fed into (and is cited in) the NHS long term plan [G] and has been used by DHSC [B] in developing its recent policy proposals.

The research [1, 4, 5 and 6] has built a more complete picture of the balance of policy to target obesity, and has informed policy makers, businesses and third sector organisations. Martin O'Connell gave evidence to the Health Select Committee on childhood obesity (1 May 2018) [H] and a presentation on "Using public policy to improve diet" (5 May 2016) to the Scottish Government Strategy Unit. Kate Smith presented the research at an event in Parliament: 'The obesity crisis – lessons for policymakers' (5 June 2018), organised by the All Party Parliamentary Group on Social Science and Policy, attended by MPs, Lords and parliamentary researchers [I].

5. Sources to corroborate the impact

- [A] HMT testimonial, Letter from Head of Excise Branch, Business and International Tax Group, HM Treasury, 27 October 2020.
- [B] DHSC testimonial, Letter from Team Leader, and Policy Manager, Obesity Team, Department of Health & Social Care, 3 March 2021.
- [C] <https://parliamentlive.tv/event/index/8bc6a3e5-affe-4a2e-92ed-d3bd54cce418>
- [D] <https://www.bbc.co.uk/news/health-43414777>
- [E] Alcohol tax policy briefs: 'Fixing the UK's alcohol taxes' <https://www.ifs.org.uk/publications/9053>; Design of optimal corrective taxes in the alcohol market; <https://www.ifs.org.uk/publications/8868>; Proposed 50p minimum unit price for alcohol would increase prices of around 70% of off-trade alcohol purchases' <https://www.ifs.org.uk/publications/10252>; Tackling Heavy Drinking through tax reform and minimum unit pricing' (November 2020) <https://www.ifs.org.uk/publications/15183>
- [F] Soda Industry Levy, Policy briefings: 'Public policy to lower sugar intake' (April 2017): <https://www.ifs.org.uk/publications/9172>; 'Sweetening the sugar tax?' <https://www.ifs.org.uk/publications/8813>; 'Is the new soft drinks levy well designed?' <https://www.ifs.org.uk/publications/8217>; 'Using taxation to reduce sugar consumption' (March 2016): <https://www.ifs.org.uk/publications/8216>
- [G] The [NHS long term plan](#) cites [3] as evidence showing that "children are heavily exposed to television advertising for food and drinks high in salt, fat and sugar."
- [H] <https://www.parliamentlive.tv/Event/Index/14fd35da-3f7f-4207-886d-904fb87fdb03>
- [I] All Party Parliamentary Group presentation: <https://esrc.ukri.org/files/collaboration/appg-briefing-impact-of-the-soft-drinks-industry-levy/>; <https://esrc.ukri.org/collaboration/working-with-policymakers/all-party-parliamentary-group-on-social-science-and-policy/>; <https://www.ifs.org.uk/publications/8277>;