

# Inequality-aware Market Design Seminar Series

## Kate Smith: Optimal sin taxation and market power & Price floors and externality correction

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### Details

**When:** 2 Nov 2022 @ 17:00 CET

**Where:** GRAPE

### Speaker this week

[Kate Smith ↗](#)

London School of Economics; Institute for Fiscal Studies

**Kate Smith** is an Assistant Professor at the London School of Economics and a Research Fellow at the Institute for Fiscal Studies. She received her PhD from University College London in 2022. Her research interests are in public finance, industrial organisation and applied microeconomics, with a particular focus on tax policy.

**Abstract 1 (Optimal sin taxation and market power):** This paper studies the design of sin taxes when firms exercise market power. We outline an optimal tax framework that highlights how market power impacts the efficiency and redistributive properties of sin taxation, and quantify these effects in an application to sugar sweetened beverage taxation. We estimate a detailed model of demand and supply for the UK drinks market, which we embed in our tax design framework to solve for optimal sugar sweetened beverage tax policy. Positive price-cost margins on sugar sweetened drinks create allocative distortions, which act to lower the optimal rate compared with a perfectly competitive setting. However, since profits accrue to the rich, this is partially mitigated under social preferences for equity. Overall, ignoring market power when setting the optimal sugar sweetened beverage tax rate leads to welfare gains that are 40% below those at the optimum. We show that moving from a single tax rate on sugar sweetened beverages (common in practice) to a multi-rate system can result in further substantial welfare gains, with much of these gains realized by instead taxing sugar content directly. Joint with Martin O'Connell. Find the paper [here](#) ↗.

Should you have any queries please contact the seminar organizers at [IMD@grape.org.pl](mailto:IMD@grape.org.pl).



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**Abstract 2 (Price floors and externality correction):** We evaluate the impact of a price floor for alcohol introduced in Scotland in 2018, using a difference-in-differences strategy with England as a control group. We show that the policy led to the largest reductions in alcohol units purchased among the heaviest drinkers—the group who, at the margin, are likely to create the largest externalities from drinking. The price floor is well targeted at heavy drinkers because they buy a much greater fraction of their units from cheap products and switched away from these products strongly, with only limited substitution towards more expensive products. We show that if the marginal external cost of drinking is at least moderately higher for heavy than lighter drinkers, then a price floor outperforms an ethanol tax. However, more flexible tax systems can achieve similar reductions in externalities to the price floor, but avoid the large transfers from public funds to the alcohol industry that arise under the floor. Joint with Rachel Griffith and Martin O’Connell. Find the paper [here](#).

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