

People first resist but later tend to embrace garbage taxes

blogs.lse.ac.uk/businessreview/2016/03/18/people-first-resist-but-later-tend-to-embrace-garbage-taxes/

3/18/2016



People do not like taxes. This is a recurrent fact in many contexts. Sometimes people do not like taxes even though they work just fine. Environmental taxes represent a good example. In most cases, environmental taxes aim at changing behaviour, not raising fiscal revenues. Yet, they are seen with suspicion by the population, and their effectiveness is often challenged.

But sometimes things can be different. Our [recent study](#) shows that garbage taxes can face important resistance before being implemented, but enjoy much more popularity thereafter. We look at the implementation of pricing garbage by the bag in one Swiss canton, and study at the same time the policy's effectiveness and acceptability by the population. We find that pricing garbage by the bag reduces unsorted waste by 40 percent, increases the frequency of recycling, and does not lead to "waste tourism" to a neighbouring canton without pricing garbage by the bag. Before its introduction, the policy is criticized by many, but afterward its popularity substantially increases.

But why tax garbage?

In most countries waste management is funded through fees at the council level, which do not depend on the quantity of garbage produced by households. But this is a bad idea, because in this way households do not have any financial incentive to recycle. If they produce more garbage, the cost of collecting it and incinerating it is shared by the whole community. Some people still recycle, driven by pro-environmental motives. However, the rate of recycling tends to be much lower in jurisdictions counting only upon the altruistic behavior of some generous people.

How to tax garbage then?

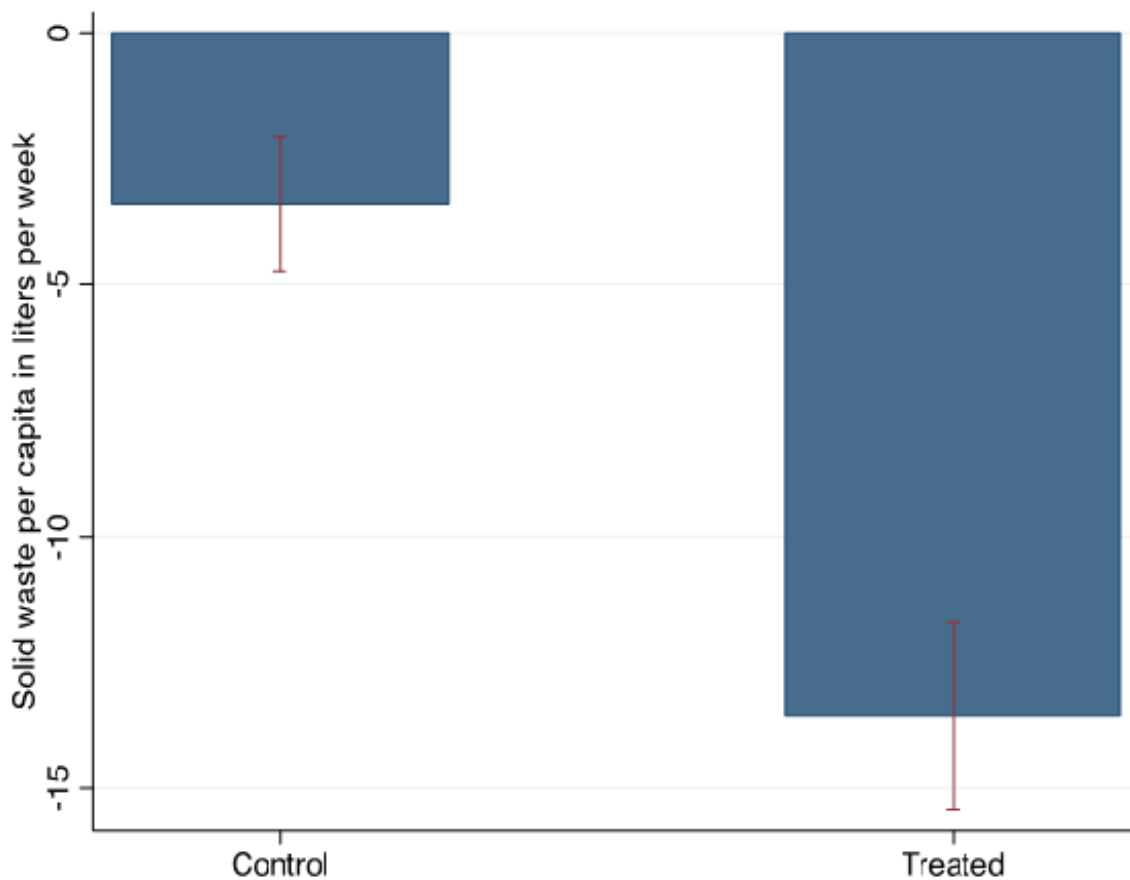
There are a few ways to do it. One of them is to introduce a special coloured garbage bag and forbid the use of any other bag, as in this study. The price of the bag is set by the authorities, to match the costs of managing waste. Pricing garbage by the bag works like this: households can either sort their garbage and dispose it at the closest collection center for free, or fill the garbage bag. The more they sort, the more they save money by using less priced bags. Households could be tempted to dump garbage in the woods or in public bins, but they tend not to. People comply with garbage taxes, as they do with the cigarette bans or seat belts.

Does the tax work?

It does. This study uses household survey data (see Figure 1) and administrative data (see Figure 2) to assess the effect of pricing garbage by the bag on people's behaviour. Both data show that unsorted waste is reduced by 40 percent, and many more households are found to sort materials such as organic waste and aluminium. To make sure that this effect is indeed driven by pricing garbage by the bag, we compare the evolution of garbage per capita in municipalities introducing pricing garbage by the bag and in municipalities that already implemented pricing garbage by the bag in the past, our control group. We exploit the decision of the Federal Supreme Court of Switzerland to force many municipalities in one Canton to implement pricing garbage by the bag to study its implementation on a large scale.

Measuring garbage in kilos or volume provides the same results, suggesting limited room for stopping waste in fragile garbage bags. Since less garbage incinerated means lower waste management costs, households gain from this reform. Of course, those who recycle the most gain the most. There are some costs of administrating the program, but these are likely to be small according to the study. Plus, less incinerated waste implies also less pollution, for instance from local gases such as NO_x and SO_2 as well as particulate matters. Carbon emissions also decrease.

Figure 1 – 40% decrease in garbage as shown by survey data



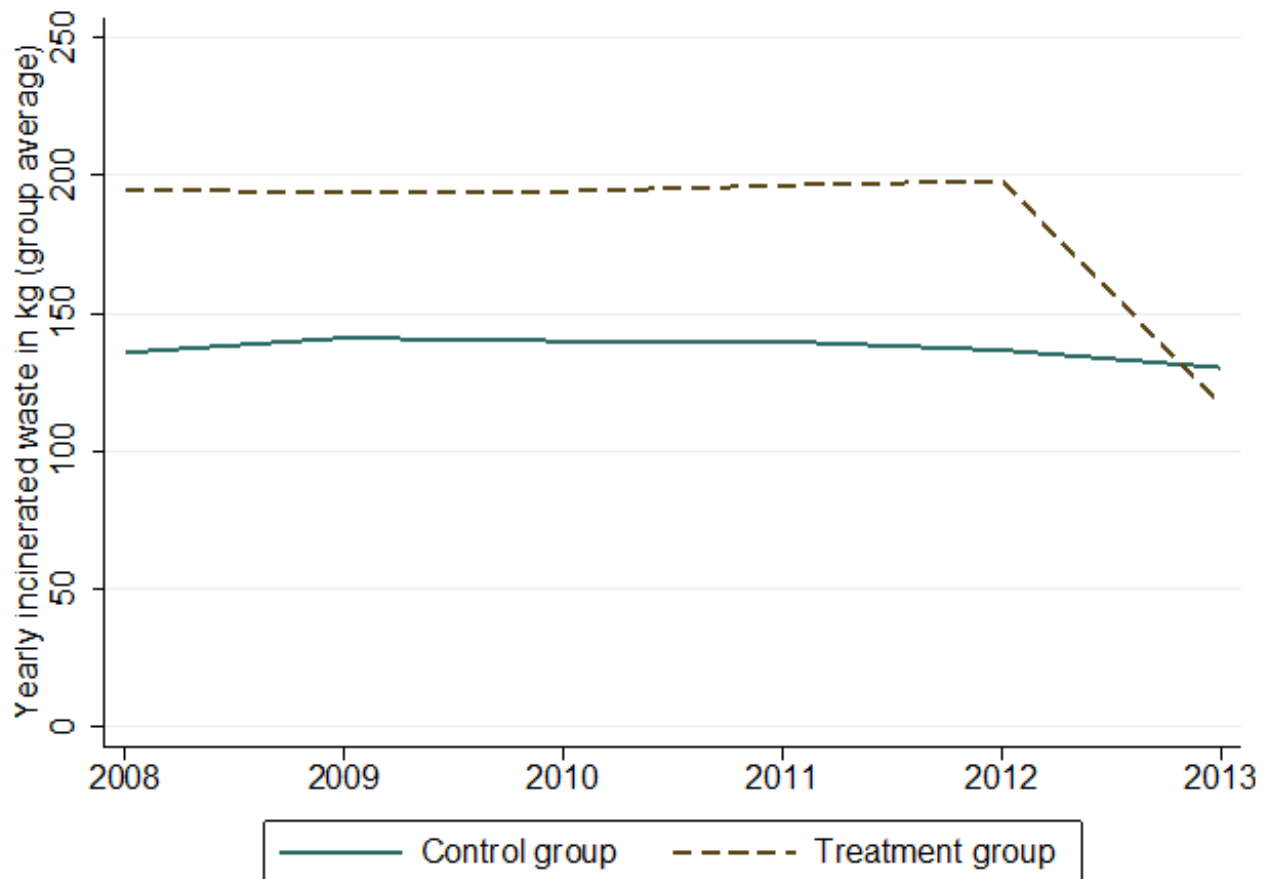
Why do people not like it?

People do not believe that the garbage tax helps them recycle and think it is unfair before it is implemented. People do not perceive pricing garbage by the bag "as effective, in the sense that it incites the inhabitants of your

municipality to recycle more of their garbage and pay more attention to voluminous wrapping”, and as unfair, “because you already pay enough taxes” or because pricing garbage by the bag “makes you pay even if you already sort your garbage”. Some people are also concerned with the potential distributional effects on low-income households, even though they do not only depend on pricing garbage by the bag but also on the way revenues are redistributed.

After the implementation, people see how pricing garbage works in their direct environment. For many, the feeling of ineffectiveness and unfairness disappear, and households declare to be ready to vote for a much higher price for garbage bags.

Figure 2 – 40% decrease in garbage as shown by administrative data



Any lesson?

Policymakers around the world struggle to make environmental taxes of any type acceptable. We show that voters are pessimistic about an environmental tax before they experience it, and become more optimistic once the tax has been implemented. If voters hold pessimistic beliefs at the time of democratic decision-making, many environmental taxes will not be implemented. This study suggests a way out of this stalemate. Policies could be first introduced for a temporary period. Voters could then decide on keeping the new policy or returning to the status quo after testing it. Policies forced onto voters that remain detested could be abandoned after the trial period. Policies that voters embrace after living with them would remain, and contribute to better environmental quality.

◆◆◆

Notes:

- This post is based on the authors' paper [Is taxing waste a waste of time? Evidence from a supreme court decision](#), LSE's Grantham Research Institute on Climate Change and the Environment, Working Paper 227.
 - Stefano Carattini will be presenting this study on March 21 at the [Royal Economic Society Conference 2016](#).
 - This post gives the views of its author, not the position of LSE Business Review or the London School of Economics.
 - Featured image credit: [Lee Jordan CC-BY-SA-2.0](#)
-

Stefano Carattini is a Visiting Fellow at the LSE's Grantham Research Institute on Climate Change and the Environment. Stefano has a PhD in Economics from the University of Barcelona. He previously studied economics at the University of Lausanne and socio-economics at the University of Geneva. He is also a researcher at the Haute École de Gestion in Geneva. research focuses on the political economy and effectiveness of environmental policy. He has worked on waste and carbon taxation as well as more broadly on cooperation in the climate commons and the diffusion of climate policy.



Andrea Baranzini is Professor of Economics at the Haute École de Gestion in Geneva, Switzerland. He has a PhD in political economy from the same university, where he also worked as Assistant Professor at the Centre for the Study of Energy Issues. In 2014 he was classified by [NZZ](#) as the 20th most influential economist in Switzerland.



Rafael Lalive is Professor of Economics at the University of Lausanne, Switzerland. He works on questions related to labour market policy, family policy and social economics, and teach empirical methods for economics and management. He is also managing co-editor of the [Swiss Journal of Economics and Statistics](#).



- Copyright © 2015 London School of Economics