

## Supplementary Materials for

### Could revenue recycling make effective carbon taxation politically feasible?

Liam F. Beiser-McGrath\* and Thomas Bernauer

\*Corresponding author. Email: [liam.mcgrath@ir.gess.ethz.ch](mailto:liam.mcgrath@ir.gess.ethz.ch)

Published 18 September 2019, *Sci. Adv.* **5**, eaax3323 (2019)  
DOI: [10.1126/sciadv.aax3323](https://doi.org/10.1126/sciadv.aax3323)

#### **This PDF file includes:**

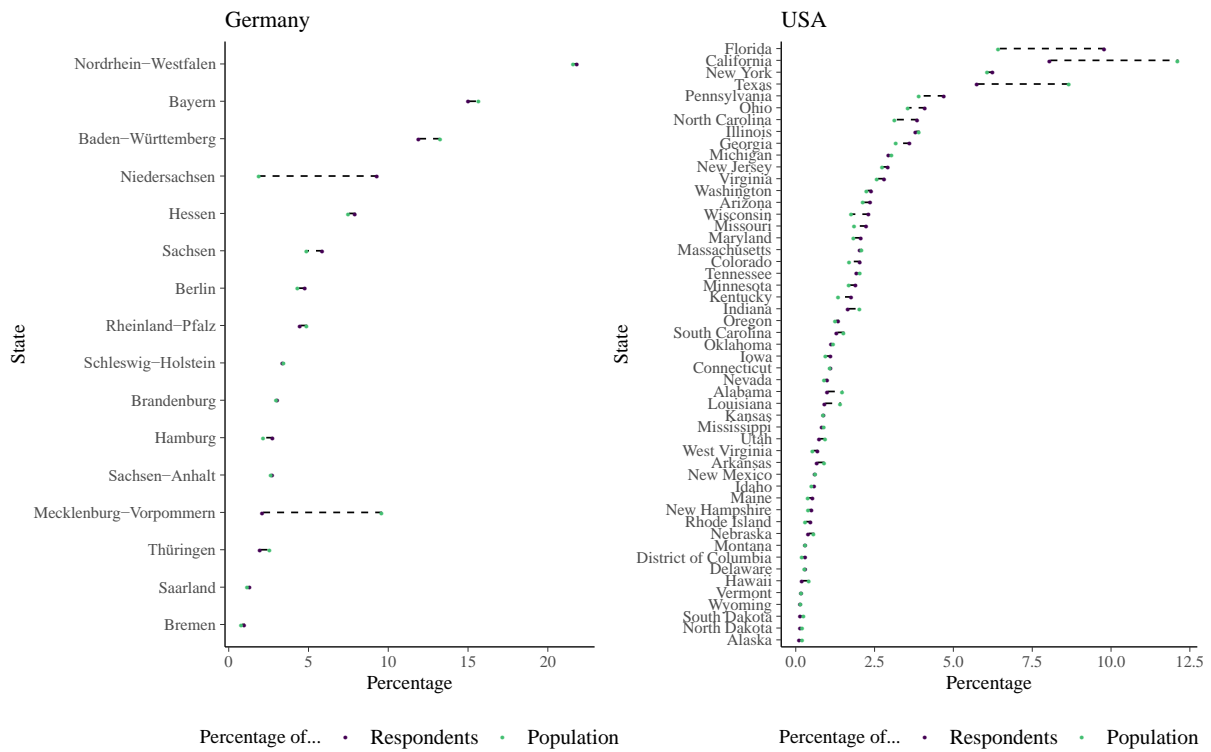
Section S1. Geographic distribution of respondents

Section S2. Wording of experimental treatments

Fig. S1. Geographic distribution of respondents compared to population distribution.

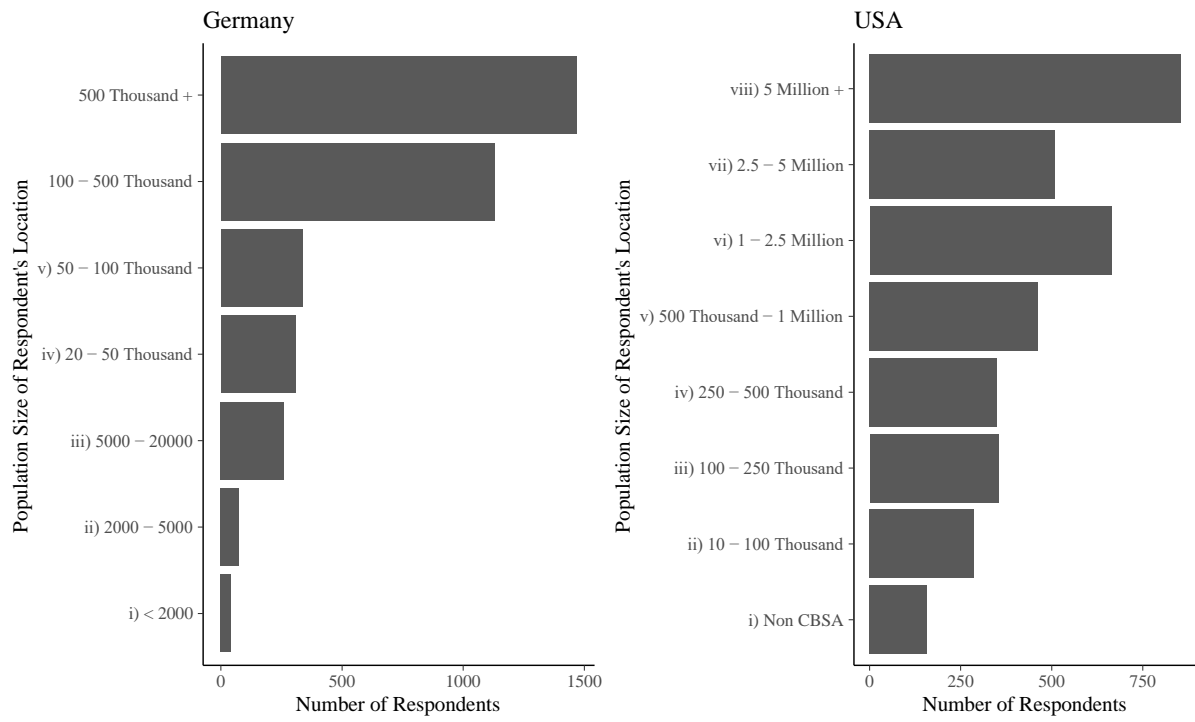
Fig. S2. Market size of respondents' location.

## Section S1. Geographic distribution of respondents



**Fig. S1. Geographic distribution of respondents compared to population distribution.**

Our sample is broadly representative of States within Germany and the USA, and has variation across the population of locations that individuals live in. Figure S1 compares the proportion of respondents in the survey by state, compared to the proportion of the population that live in these states. In general, we see a close correspondence between the respondent and the population figures. However, we do see an overrepresentation of respondents from Florida in the USA and Niedersachsen in Germany, and an underrepresentation of respondents from California and Texas in the USA and Mecklenburg-Vorpommern in Germany. Figure 2 shows that our respondents are also not solely located within major cities.



**Fig. S2. Market size of respondents' location.**

## Section S2. Wording of experimental treatments

*Below is the exact form and flow of the experimental part of the survey. Respondents first are provided a short explanation of carbon taxation earlier on in the survey.*

Carbon dioxide emissions from burning coal, oil, gas, gasoline, diesel, and other fossil fuels are widely regarded as the principal cause of global warming, also called climate change. Climate change, in turn, is widely regarded as the main cause of more droughts, heat-waves, floods, storms, and other extreme weather events that harm people and nature. Governments around the world are thus trying to reduce carbon dioxide emissions.

One of the most important measures being considered is a carbon tax. This means that producers and distributors of fossil fuels would have to pay a tax according to the amount of carbon dioxide emissions these fuels cause. This would make fossil fuels more expensive and motivate people, companies, and others to consume less fossil fuels and thus reduce emissions.

*Before participating in the conjoint experiment, respondents are provided a description of the various features that form a carbon tax.*

A new carbon tax in <COUNTRY RECODE> could take on different forms. Depending on how the <COUNTRY RECODE> government designs such a carbon tax, this could make a big difference to you and to <COUNTRY RECODE> as a whole. Policy-makers thus want to know what form of carbon tax citizens would support or oppose. On the next page, you will see some aspects of a carbon tax that are particularly important, and how the carbon tax could look like on each of those aspects. Please read them carefully.

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DISPLAY TEXT PARAGRAPH BELOW 1 AFTER THE OTHER ON THE SAME PAGE. INCLUDE TIMER BEFORE ALLOWING TO CLICK ON THE "NEXT" BUTTON.

1. **Cost:** A new carbon tax could range from \$10 per ton of carbon content in fuel, up to \$70 per ton. A carbon tax of \$10 per ton would cost the average consumer approximately \$144 per year. A carbon tax of \$70 per ton would cost the average consumer approximately \$1000 per year.

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<ONLY RECEIVED FOR RESPONDENTS FROM THE 1<sup>st</sup> CONJOINT GROUP>

2. **Revenue Use:** The revenue collected from the carbon tax could be spent in a variety of ways. It could be used to reduce by the financial burden imposed by the government on people by being paid back in full in the form of a tax rebate, being used to lower corporate or income taxes, or used to reduce the government budget deficit. Or it could be used for new investments such as investing in renewables and financing new infrastructure, or to fund government programs that help the poor or assist workers in industries affected by the carbon tax, such as the coal industry.

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3. **Exemptions for Firms:** The scope of the carbon tax could also be applied differentially to energy intensive products (such as steel, cars, and electronics), dependent upon their origin. For example, the products that domestic firms export to other countries could be exempted, or the carbon tax could be extended to apply to products that are imported from other countries to <COUNTRY RECODE>.

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4. **International Effort:** The carbon tax could also be part of a broader international effort to deal with carbon dioxide emissions. For example, <COUNTRY RECODE> could aim to implement the tax together with other large emitter countries (such as China), with other developed countries (such as Canada, Japan, and the EU), or also with developing countries.

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## Q CONJOINT WITH 5 ROTATIONS

We will now ask you to compare specific proposals for a new carbon tax. You will see two new proposals side-by-side five times. Their features differ, and you will be asked to tell us whether you support or oppose these proposals. Please read carefully. Some sets of features and proposals may look similar but could still differ in one or more important aspects. You will be asked to compare the two proposals and tell us which one you think the <COUNTRY RECODE> government should adopt.

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<FOR BOTH CONJOINT GROUPS THE ORDER OF ATTRIBUTES SHOULD BE RANDOMISED ONCE, AND THEN KEEP THIS ORDER FOR THE FIVE(5) TASKS. THE ITEM DISPLAYED PER ATTRIBUTE WILL BE DISPLAYED RANDOMLY TO DISPLAY CONJOINT EXERCISE TOGETHER WITH Qs ON THE SAME PAGE WITHOUT SCROLLING DOWN>

Comparison X/5

[ATTRIBUTE#]	Proposal A	Proposal B
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1. Amount of carbon tax	<ol style="list-style-type: none"> <li>1. \$10 per ton (\$144 per year for average consumer)</li> <li>2. \$20 per ton (\$288 per year for average consumer)</li> <li>3. \$30 per ton (\$432 per year for average consumer)</li> <li>4. \$40 per ton (\$576 per year for average consumer)</li> <li>5. \$50 per ton (\$720 per year for average consumer)</li> <li>6. \$60 per ton (\$864 per year for average consumer)</li> <li>7. \$70 per ton (\$1008 per year for average consumer)</li> </ol>
2. Additional public revenue, i.e., carbon dividends, is used for	<ol style="list-style-type: none"> <li>1. Tax Rebate Paid To Everyone</li> <li>2. Reduce Federal Government Deficit</li> <li>3. Fund Renewable Energy Sources (e.g. solar, wind, and geothermal power)</li> <li>4. Fund Infrastructure (e.g. railways, roads, and public transportation)</li> <li>5. Fund Programs for Low Income Families</li> <li>6. Reduce Income Tax</li> <li>7. Reduce Corporate Tax</li> <li>8. Fund Retraining Programs for Workers in Fossil Fuel Sector</li> </ol>
3. Energy-intensive products imported from other countries	<ol style="list-style-type: none"> <li>1. Fully Exempted (pay no carbon tax)</li> <li>2. Taxed at Half Rate (pay only half of the carbon tax)</li> <li>3. Taxed Equally (pay full carbon tax)</li> </ol>
4. <COUNTRY RECODE> companies exporting energy-intensive products to other countries	<ol style="list-style-type: none"> <li>1. Fully Exempted (pay no carbon tax)</li> <li>2. Taxed at Half Rate (pay only half of the carbon tax)</li> <li>3. Taxed Equally (pay full carbon tax)</li> </ol>
5. Similar carbon tax introduced by	<ol style="list-style-type: none"> <li>1. No Other Countries</li> <li>2. European countries (European Union)</li> <li>3. China</li> <li>4. United States &lt;NOT SHOWN IF COUNTRY IS USA&gt;</li> <li>5. India</li> <li>6. Canada</li> <li>7. Japan</li> <li>8. All industrialized countries</li> <li>9. All developing countries</li> </ol>

**Q SA**

If you had to choose between the two proposals: Which one should the <COUNTRY  
RECODE> government adopt?

1. Proposal A
2. Proposal B

**Q SA 7 POINT SCALE SLIDER**

How much would you support Proposal A?

**HORIZONTAL SLIDER**

1 (don't support at all) / 7 (strongly support)

**Q SA 7 POINT SCALE SLIDER**

How much would you support Proposal B?

**HORIZONTAL SLIDER**

1 (don't support at all) / 7 (strongly support)

Support is coded as responses 5-7, opposition as responses 1-3.