

Response to the Reviewer #2
*French Attitudes on Climate Change, Carbon
Taxation and other Climate Policies*

Thomas Douenne and Adrien Fabre*

September 16, 2019

Dear Reviewer,

We are grateful for the time you spent reviewing our work and for your very relevant comments, which helped us improve the paper. We have taken into consideration each of them. Please find below the answers to these comments.

Kind regards,

Thomas Douenne & Adrien Fabre

The article describes the attitude towards different climate change policies in France in relation to a large set of socio-economic variables and other household characteristics based on survey data. It analyzes which socio-economic indicators are correlated with different attitudes and, based on this, gives recommendations on how to further advance climate change policies in France. The authors pay particular attention to the Yellow Vest movement. The survey consists of answers from 3002 respondents and seems to represent the French population well.

This article treats a highly policy relevant and up-to-date topic in a systematic and accessible fashion. It sheds light on the underexplored topic of which

*Paris School of Economics. thomas.douenne@psemail.eu ; adrien.fabre@psemail.eu

climate policy designs are acceptable to the general public and comes to new policy recommendations for the French case. I would recommend the publication of this article, after the points mentioned below are addressed accordingly.

** Introduction (p.2. from line 44): Here I would strongly suggest a literature review that is a bit more extensive. Maybe two or three additional paragraphs that summarize the main results found by other studies. Most of the relevant studies are already cited in later sections, but in a rather dispersed way that does not give much of an overview. Additional relevant literature is reviewed for example in: <https://www.tandfonline.com/doi/full/10.1080/14693062.2019.1639490>*

We thank you for this suggestion and for sharing the reference to the very recent Maestre-Andrés et al (2019). We initially thought reviewing the literature in introduction would be redundant given that we cite these papers in the text. Still, it is true that gathering the main references at the beginning is useful for the readers as it gives a stand point from which the paper's contributions are better highlighted.

We included your excellent suggestion in the literature review (of literature reviews) that we already had. Then, we added two paragraphs (containing more than twenty references): one reviews the literature on attitudes over carbon taxation, and the other reviews the literature over climate policies in general.

** line 151 and also in the rest of the document. I would strongly suggest to use the word anthropogenic instead of anthropic. See also: <https://wikidiff.com/>*

Thank you for this correction. We corrected this Gallicism accordingly.

** line 249: please define the concept of "warm glow" in this context*

Following a suggestion of the other reviewer, we shortened section 3 and thus removed the sentence in question. However, there is another occurrence of "warm glow" later in the text (in section 6.2). Thus, we defined the expression in the following footnote: *Here, "warm glow" refers to one's unintentional strategy to overestimate their virtue in order to derive satisfaction.*

** line 570: "...are usually less cost effective than Pigouvian taxation". There are situations in which this is not necessarily the case. See for example: Goulder, Hafstead, Williams 2016 General Equilibrium Impacts of a Federal Clean Energy Standard. If there are additional distributional constraints, other climate change policies might be also more efficient (Stiglitz, 2019, EER, already*

cited in your manuscript).

We are grateful that you give us this reference. This result is very interesting, and we were not aware of it. We rephrased the sentence accordingly: it is now *Under a binding acceptability constraint, alternative instruments become relevant, even if Pigouvian taxes may be more cost-effective (e.g. Goulder & Parry; 2008) (instead of Although economists have shown that alternative instruments are usually less cost-effective than Pigouvian taxes (e.g. Goulder & Parry; 2008), they may become relevant in a context where there is a binding acceptability constraint.)*. We are ready to cite the enlightening reference you provided, but it does not appear necessary given the reformulation we propose.

** page 11 Table I: - Why is "extreme left" not included in column (3) and (6)? - Please include Yellow Vests: opposed. This is quite an interesting variable and you also explicitly refer to it on page 12 in line 724.*

We thank you for pointing out an unfortunate specification in the regressions (3) and (6) of Table I. The reason why "Extreme-left" did not appear there is that *Left-right* is in numeric type (in $[-2; +2]$) in its interaction with *Diploma*, which led to the exclusion of "Left-right: Indeterminate" from the analysis, so "Extreme-left" took its role of omitted modality. We modified the definition of (the numerical) *Left-right* to impute the mean value of *Left-right* (0.15) to those who are *Indeterminate*. We also included another interaction, between *Diploma* and *Indeterminate*, to make sure that the coefficient of the interaction of interest (*Left-right* \times *Diploma*) remains unchanged. Now, the number of observations is 3,002 in columns (3) and (6) (instead of 1,813), and "Indeterminate" has replaced "extreme-left" as the omitted modality.

Concerning your second comment, we prefer to take "Yellow Vests: opposes" as the omitted modality (rather than, say, "PNR"), because it is a modality at one extreme of the attitudes, and it allows to compare the other modalities with respect to this extreme case. For example, this choice allows one to read directly from Table I the relative effect of being part of the movement relative to opposing it, as shown in (what was) line 724.

Besides, reworking on this Table made us notice a mistake: *Knowledge* had not been normalized in regression (4), contrarily to what was written in the text. Fortunately, this mistake did not affect the statistical significance of the coefficients nor their relative magnitudes. Even the absolute value of the coefficients reported in the text were correct (but inconsistent with the Table). The Table has now been corrected, and we apologize for this mistake.

** line 869: There is more recent literature on trust and climate policy support. see for example Rafaty, R. (2018). Perceptions of Corruption, Political*

Distrust, and the Weakening of Climate Policy. Global Environmental Politics, 18(3), pp. 106-129.

We thank you again for this reference that we missed, although it seems the most up-to-date paper on the topic. As we already cite extensively Drews & van der Bergh (2016) in the paper, we replaced this occurrence of that reference by the one you suggest. The sentence becomes *This interpretation echoes the recent findings of Rafaty (2018), who shows that perceptions of corruption and political distrust negatively affect the stringency of climate policies.* (instead of *This interpretation echoes a large literature on the importance of trust for climate policies' support, as reviewed in Drews & van der Bergh (2016).*).

* line 883: please cite additional literature here. For example Ziegler, A. (2017) *Political orientation, environmental values, and climate change beliefs and attitudes: An empirical cross country analysis. Energy Econ. 63, 144–153.* Cherry, T. L., Kallbekken, S. & Kroll, S. (2017). *Accepting market failure: Cultural worldviews and the opposition to corrective environmental policies. J. Environ. Econ. Manage. 85, 193–204.*

First, we want to disclose a serious mistake of ours regarding these lines (about the correlation between political leaning and support for climate policies). Due to a typo in the code (“Left” was the omitted modality instead of “Indeterminate”), our Table II and corresponding analysis were flawed in the original manuscript (this did not affect other coefficients than political leaning nor other Tables). Consistently with the literature, we now *do* find that people from the left have higher support for climate policies.

We adopt your suggestion and cite two supplementary papers to substantiate this finding: Bornstein & Lanz (2007) for Switzerland and Mc Cright et al. (2013) for the U.S. We have the impression that the references you suggest are slightly less connected to this issue, as they concern respectively climate change rather than climate policies, and worldviews rather than political leaning.

That being said, we found both of these papers highly interesting. We realized that Ziegler (2017) was of particular relevance for our paragraph on the importance of the political polarization in climate attitudes, in France relative to the U.S. Thus, we now refer to Ziegler (2017) in footnote 10. With respect to Cherry et al (2017), the paper does not explore the left/right cleavage but its results on worldviews and the comparison between preferences for different instruments are interesting, so we cite it in our introductory literature review.

* line 886-890: please refer to Table 2.3.

We modified the sentence accordingly: *Without controlling for other variables, we find that people that are most likely to accept the Tax & Dividend in France are the ones affiliated with the center (+9 p.p. relative to “Indeterminate”), and the least likely are those on the extreme-right (-15 p.p., see online Appendix, Table 3.4), which may be driven by their respective support or rejection of the current government who tried to increase the carbon tax.*

** line 946: What does “this policy” refer to - dividends or kerosene taxation or the combination?*

Admittedly, our sentence was ambiguous. We removed the ambiguity by rephrasing it *Third, a tax and dividend restricted to kerosene could serve as a learning example as kerosene taxation is popular.* (instead of ... *as this policy is popular.*).

Typos:

We would like to thank you for your effort at pointing out our (too many) typos. We corrected all of them.

** abstract: “studies in details” should be “studies in detail”*

** page 3 line 133: “it will severely effect” should be “affect”*

** line 329: “thought is was desirable” should be “it”*

** line 852: “consistently” should be consistent*

** line 861: “does not simply reflects from lower...” should this be “does not simply reflect lower” ?*

** line 885: “that people most likely” should be “that people that are most likely”?*

** line 957-962: There is something wrong with this sentence and it also is too long.*

We acknowledge that the end of the conclusion was poorly redacted, and that it was unfortunate that the last sentence was about Sweden (as pointed out by the other reviewer). Thus, we rewrote the conclusion entirely, and we split the sentence in question. It is now *As such, it is no surprise if political*

trust is among the highest in the first country to introduce a carbon tax, Sweden (Klenert et al., 2018). It is no coincidence either if the 1991 Swedish tax was part of a comprehensive re-structuring of the tax system, the popular “reform of the century”, resulting from a dialogue with all stakeholders (Stern, 2014). instead of Sweden was the first country to introduce a carbon tax, and it is no coincidence if political trust is among the highest (Klenert et al., 2018) and if the 1991 Swedish tax was part of a comprehensive restructuring of the tax system, the popular “reform of the century” (Stern, 2014). A last takeaway of the Swedish example is that a dialogue with all stakeholders can help building a consensus and finding fair solutions, and may be key to decarbonization.