



Peer-Review Report Form

Manuscript Title:	Kerosene Up, Petrol Down: The Distributional Anatomy of Madagascar's 2025 Fuel Price Liberalisation
Type of Article:	Original Article

FIRST ROUND

Editor

<u>General Comments and Recommendations</u>
The reviewers acknowledge the significance of your manuscript and recommend several revisions to further improve its clarity, coherence, organization, and overall scholarly quality. In addition, you are advised to thoroughly review and validate all references included in the manuscript. Please ensure that all cited sources are accurate, accessible, and retrievable through Google Scholar to uphold the credibility and reliability of the study. Additionally, make sure to include the DOI or website link for every reference to facilitate verification and accessibility of sources. Furthermore, only sources that are cited within the manuscript should appear in the References section, and all entries listed in the References section must also be cited in the text. For example, if 20 unique sources are cited in the manuscript, then only those 20 sources should be included in the References section. Please note that repeated citations of the same source within the text are counted as a single reference entry; therefore, the total number of references may be lower than the total number of in-text citations.

Reviewer 1

<u>General Comments and Recommendations</u>
The manuscript presents a solid mathematical basis for fuel price evaluation in Madagascar. The experimental design leverages a unique policy window perfectly.

<u>Specific Comments and Recommendations</u>
Title: The author must consider a concise version that directly highlights the natural experiment mechanism rather than just the year.
Abstract: The abstract effectively summarizes the core results, such as the steep price increase for kerosene and the drop in petrol. The author states kerosene deliveries fell by a large margin. The author must specify the exact time frame of the survey data here to provide rigorous context immediately.
Introduction: This part establishes the research gap adequately. The text notes that global fossil fuel subsidies dwarf public health budgets in many poorer nations. The author accurately identifies the lack of observed household responses as a severe blind spot in current literature. The logical transition between paragraphs demands much smoother connective tissue to retain reader focus.



Methodology: The author details the data source as the national statistical institute. The explanation of the price freeze over thirty months is excellent. The author must aggressively explain whether they expect inventory behavior to skew the monthly volume data, as the text admits deliveries to the domestic market are measured rather than final consumption. This distinction is critical.

Results: The elasticity estimates are unexpectedly large. The pooled elasticity sits at negative zero point five one. The author compares this to a consensus from broader literature. The author must rigorously provide more macroeconomic context on why Madagascar specifically shows such extreme divergence from global averages beyond just the availability of solar panels.

Distributional incidence: The reliance on a household survey from three years prior to the reform is a severe analytical limitation. The author notes that solar diffusion continued over those three years. The author must drastically strengthen the argument that this temporal gap does not mathematically invalidate the primary conclusion about poverty impacts.

Discussion and limitations: The author transparently admits the lack of access to the exact price structure. This honesty is laudable but insufficient. The text must propose a specific method or proxy for future researchers to overcome this data barrier.

Conclusion: The final remarks summarize the policy choices well. The author highlights that the state chose a reform path that harmed the poor. The author must add a prospective statement about how policymakers can mathematically design better targeted subsidies.

References: The citations appear relevant and properly formatted. The author must verify all digital object identifiers resolve correctly to their respective articles.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
☐	Accept the manuscript for publication.
☐	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
☐	Reject the manuscript, as it is not suitable for publication.

Reviewer 2

<u>General Comments and Recommendations</u>
The analysis treats differential administered prices across only three fundamentally different fuel markets as if they provide quasi-experimental variation, even though the manuscript itself shows that the price asymmetry was deliberately chosen by government and later reversed. This creates a serious identification problem because the same product-specific considerations that shaped the pricing decision may also be related to product-specific demand movements. Month fixed effects and linear product trends cannot remove such time-varying product-specific shocks. The estimates may document a strong association between relative prices and deliveries, but calling them identified demand elasticities or describing the policy as an experiment is not yet convincingly established.
<u>Specific Comments and Recommendations</u>



The randomization inference is, for me, the most serious technical problem in the paper. The test assumes that the three observed prices are exchangeable across petrol, kerosene, and diesel within each month, then constructs the null distribution by permuting these prices across products. But there is no random or plausibly random assignment mechanism that would make such permutations valid. These are structurally different products with different users, market sizes, policy objectives, and pricing treatment; indeed, the paper explicitly states that the original kerosene protection was deliberate. Petrol prices could not realistically have been assigned to kerosene, or vice versa, as though the product labels were interchangeable experimental units. Therefore, the extremely small permutation p-value does not have a defensible randomization interpretation.

Please indicate your recommendation by checking the appropriate box below.

<u>Decision</u>	
	Accept the manuscript for publication.
/	Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.
	Reject the manuscript, as it is not suitable for publication.

SECOND ROUND

<u>Decision</u>	<u>Editor</u>	<u>Reviewer 1</u>	<u>Reviewer 2</u>
Accept the manuscript for publication.	/	/	/
Reconsider the manuscript after the authors have satisfactorily addressed and complied with the reviewers' comments and recommendations.			
Reject the manuscript, as it is not suitable for publication.			