

Review of: "Financial Repercussions of Carbon Emissions and Depletion of Natural Resources: The Role of Fiscal Policy in Determining Health Expenditures"

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According to the author's statement, the paper presents the results of the analysis of the impact of various environmental factors on public and private health expenditure. The topic should be considered important because, as the author himself notes, the impact of environmental conditions on sustainable economic development, human life, living standards and health is a key issue in contemporary economic literature and policy debates. This area has become even more important in the aftermath of the Covid-19 pandemic, with the observed changes in funding models to compensate for economic losses - something that should be fully acknowledged and valued as a research topic.

However, the method of developing research hypotheses and presenting their results needs to be improved in the following areas:

1. The main assumption of the work presented in the light of the proposed topic is not entirely clear to the reader - whether the author is focusing on the financial issues of the impact of carbon dioxide emissions and the depletion of natural resources (in terms of health care financing), or on the role of fiscal policy in shaping health care spending - as both aspects are interesting, but address two different issues. The author should modify the topic, clearly indicating the area of analysis.
2. The abstract needs substantial revision to present the background to the problem, the purpose of the research, the methodology, the data sources and the main findings. The abstract in its current form does not allow the expected scope of the work to be defined. In the abstract, the author points to many potential strands of the presented research, i.e. the impact of external debt on health spending, the impact of the structure of fiscal revenues (direct and indirect taxes) on public sector spending on health services, the impact of government effectiveness, political stability on health spending, and the spread and severity of infectious diseases. The scope of the analysis is far from the one suggested by the title of the study.
- 3 For example, in the introduction, the author writes " Empirical evidence shows that carbon emissions are a major contributor to the increase in public and private health expenditures" without specifying whether this is the result of the author's research or the conclusion of a literature review. The abstract should clearly state the author's contribution to the field of research, its scope and main findings.

4. In many places there are no references to indicate the sources of the quoted observations of socio-economic phenomena. For example, the author writing about the effects of recent periods of recession and economic crisis (Part 1 of the article) does not indicate the authors of the results presented. Similarly, "The links between environmental conditions and sustainable economic development have been established in various studies" - without specifying which studies the author is referring to, etc.

5. The author should better distinguish between the interdependence of the occurrence of certain phenomena (correlation) and their causality. In the case of many of the variables analysed, one can probably only speak of interdependence in relation to the methods used in the study, without formulating judgements about the causality (conditioning) of the variables. The problem in this respect is the limited description of the methodology used, including the lack of equations describing the model developed.

6. Conclusions drawn on the basis of the analyses presented should be substantively verified. For example: "To reduce private health expenditures, the levels of carbon and methane emissions should be restricted" - it seems that the author, on the basis of the correlation found, identifies the level of CO₂ and methane as a causative factor for the level of private health expenditure, but does not specify to what extent these two environmental factors affect the quality of health of the inhabitants. Rather, it can be assumed that, at a certain level of a country's development, the amount of CO₂ and methane produced may be a derivative of the level of industrial development of a given area, and thus a determinant of the income level of its inhabitants and their ability to finance health care. The author does not adequately explain the source of this proposed cause-and-effect mechanism that would operate in this situation.

7. Some of the results presented are not justified by the topic of the article. For example, the study of the relationship between the unpaid public debt and the per capita health care expenditure - this problem concerns a completely different issue from the one arising from the subject of the article (see point 1). The author tries to examine the relationship between the level of private and public spending on health care in individual countries without analysing the principles of financing health care, which does not allow correct conclusions to be drawn. Similarly, the statement "Indirect taxes affect the ability of common people to spend on healthcare products and services. Indirect taxes lead to inflation, and a higher rate of inflation leads to lower spending on health" - both the problem of the impact of indirect taxes on the level of inflation and the impact of the level of inflation on health spending require a broader context of analysis based on economic theory, including institutional economics.

In conclusion, I propose to limit the scope of analysis to the impact of selected environmental factors on health care expenditure in the context of fiscal policy models - as suggested by the title of the article - or to change the research perspective (also in the title) to a broader view of the issue of health care expenditure in the light of the conditions of the country's fiscal policy.