

Review of: "Tobacco Taxes as the Unsung Hero: Impact of a Tax Increase on Advancing Sustainable Development in Colombia"

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As the authors rightly point out, this article's relevance is mostly given by the assessment it provides on the potential consequences of tobacco tax increases on several dimensions related to economic development, in general; and, particularly, with Sustainable Development Goals (SDG). The results of the article confirm the widely negative effects of tobacco on individual, household and social welfare, and the huge gains on welfare that tobacco tax increase have associated.

I do not have any fundamental criticism to the article. The method seems to be sound, as microsimulations have long been used in economics, though they are novel in this area. Having said that, microsimulations give with the data and the modeling provide. Without knowing the data or the exact modeling (though codes are provided by the authors), it is difficult to fully understand how they work, but I imagine that the model has some limitations. Though I have no doubt that authors have considered as many dimensions, variables, implications, etc. as possible, it is likely that some relevant aspects are missing. Regarding this it would be useful to have a factual checking to this counterfactual exercise. Perhaps, the authors may want to test the response of the method by assessing if the "synthetic" Colombian society they created behaved as the actual one, after the last tobacco tax increase. I am not sure if that can be done (I imagine that some changes are difficult to be observed), but if that is possible it would strengthen an already strong article.

The following comments/suggestions/corrections are particular:

1. When describing the indicators that are considered (under the "Aggregate indicators" subsection, the authors refer to "global society" and world's economy". I am not sure that is correct, as the exercise is done for Colombia.
2. According to the authors, Figure 3 shows a Concentration Curve though I believe is a Lorenz curve. The difference between both is that Concentration curves show the distribution of one variable (eg, number of smokers), according to the ranking made by another variable (eg, income of the whole population). When the same variable is used in both axis (as I believe is the case of Figure 3, where smokers are used) it is a Lorenz curve. The strictly concave shape of the curve in Figure 3 (though it might be a consequence of the Figure's resolution) also suggests this is a Lorenz curve (Concentration curves are very often not strictly concave). In addition, the way this curve is constructed seems quite like the ones used to estimate a Kakwani index. In such a case, it should be noted and discussed accordingly.

3. In the same subsection, the authors claim “(...) it can be seen that such benefit is higher in low-income individuals, showing that the distributional effect of the tax increase is progressive”. I am not sure that the proportionally larger reduction in smokers among poor smokers shows “progressivity” of the tax increase. If among such a group the financial impact of the tax increase is significantly higher than the benefit of the lower number of smokers, then the policy is not progressive. There is overwhelming evidence that tobacco tax increases are a progressive policy when considering not only the financial impact of the tax increase, but also the financial alleviation such a policy has in terms of the reduction in financial burden of diseases caused by tobacco. I suggest the authors to refer to that evidence. I would also suggest the authors to consider making a statement about the inconvenience of assessing a policy aimed at improving economic efficiency in terms of its distributional impact.
4. The increase in the tobacco industry’s profit after the tax increase should be discussed further. There is substantial evidence that the tobacco industry tends to over shift taxes to prices and that the proportion of tax shifting depends on the market and tax structure, industry expectation about future tax changes, etc. I think the authors should discuss the value of the pass-through rate they are using and discuss it considering the Colombian and international evidence.
5. Under the subsection “Domestic resources”, the authors claim that “The tax increase transfers resources from the tobacco industry to the government, and such transfer is socially desirable as the tobacco industry imposes health and environmental externalities for which the government, and the society in general, has to pay.” First, I believe that the tax is a mechanism of transfer from smokers to the government. Smokers are the ones who face higher prices (now approaching the true social costs of consumption). In fact, one of the results shows that industry’s profits would increase with this policy, which is hardly a mechanism of transfer from the industry to the government. Smokers transfer resources to the government and to the tobacco industry if the tax increase is over shifted. Second, it is implied that the tobacco industry is the cause of negative externalities. That would be the case if externalities would arise in production (for instance, in the form of pollution in the production process). However, I understand that externalities arise in consumption (eg, second-hand smoking, negative health outcomes that must be paid by society, littering, etc.). And that is why smokers must pay for them. If this is true, one could think of a situation where cigarettes are produced but not smoked at all and all externalities would vanish. Third, in welfare economics the government is part of the society. Hence, the government does not pay for costs associated to negative externalities: society does. The government only provides certain services (eg, healthcare) or goods (eg, drugs) that are paid by society.

Overall, the article is worth reading, as it incorporates a useful economic methodology to the analysis of tobacco control, especially in the context of developing countries. It is a significant contribution to the literature on tobacco control and I congratulate the authors for this.