

Questioning the regressivity of tobacco taxes: a distributional accounting impact model of increased tobacco taxation—commentary

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Despite extensive evidence from many countries showing that substantially increasing prices of tobacco through taxation is the single most effective way to reduce tobacco use,¹ policymakers have been hesitant to adopt such policies. One common argument against higher tobacco taxes is that they may be regressive. This argument relies on a narrow definition of regressivity based on comparing the tax burden—the ratio of taxes paid to income—for different income groups.

Tax regressivity can be defined in multiple ways, with the two most common definitions based on the tax burden or the ‘ability to pay’ (also known as the ‘accounting definition’),² or based on welfare. The flaw of evaluating regressivity based solely on tax burden by income group is that it does not consider the behavioural responses to taxation, as consumers change their consumption in response to higher taxes. Alternatively, the welfare-based approach incorporates these effects and accounts for the impact of a tax change increase on not just income but on overall welfare.

Verguet and colleagues adopt the accounting definition of tax regressivity and present a mathematical model which evaluates the net change in the ratio of tobacco taxes to income for different income groups. They model alternative scenarios for smoking prevalence and intensity, relative price changes and the price responsiveness of tobacco use among different income groups to show under which conditions higher tobacco taxes may be regressive or progressive.

Even though they apply a static approach in evaluating tax regressivity, where the full impacts of behavioural changes are not taken into account, Verguet and colleagues’ approach is useful. They show that the distributional impact of tobacco taxes very much depends on the consumption patterns across income groups and their relative price responsiveness. In countries where there is no significant difference in consumption patterns across income groups, the lowest-income group is very responsive to price changes, and initial level of taxation is low, large increases in taxes and prices would have a highly progressive impact. Alternatively, when there are significant differences in consumption across income groups, lower-income groups are very responsive to price increases, and the tax and price increases are sufficiently large, the tax increase is more likely to be progressive. The tax increase is also more likely to be progressive when there are large differences in prevalence, regardless of the difference in price responsiveness.

However, Verguet and colleagues do not go further and take into account the longer run effects of a tax increase, which have important implications for its distributional effects and are important in assessing the overall impact of a tax increase on welfare. In other words, higher prices through increased taxes reduce the consumption of tobacco products, leading to reductions in the morbidity and mortality attributed to tobacco use, and therefore lower medical costs. In addition, reduced tobacco use leads to increased productivity and greater earnings. Moreover, the increased revenues resulting from higher taxes could be used progressively to support programmes targeting lower income groups.

Some argue that higher tobacco taxes would make people worse off as they are forced to give up something that gives them pleasure and which they can no longer afford, or if they continue to consume and need to commit a greater proportion of their income to tobacco products.² However, this position ignores two very important arguments for tobacco taxation, which are both taken into account by the welfare definition of distributional impact of tobacco taxes. First, as consumers are misinformed about the full health consequences of tobacco consumption,³ they impose costs on themselves but do not fully internalise them. These ‘externalities’ create a distinctive rationale for increasing tobacco taxes in order to correct for information failures in the tobacco product market.^{4,5} Second, the economic justification for excise taxes on tobacco products is based on the principle of correcting for negative ‘externalities’,⁶ or the burdens borne by non-tobacco users for which they are not compensated. Therefore, by reducing tobacco consumption, increased tobacco taxes improve welfare by reducing both the externalities and internalities associated with tobacco consumption.

To conclude, while Verguet and colleagues focus their analysis on analysing the impact of changes in the tax to income ratio—and thus exclude other relevant components of the distributional impact of tobacco taxes—they provide a very useful model showing that even under such a limited definition, tobacco tax increases can have a progressive impact.

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