



Increasing tobacco taxes benefits low-income households the most

Institute of Economic Sciences, November 2022

This policy brief is based on a research study entitled “Distributional Impacts of Tobacco Excise Taxes in Serbia” conducted by the Institute of Economic Sciences, Belgrade, Serbia

Key Findings:

- **Increase in the specific excise tax by 43.6 percent, leading to compliance with the EU 2014 tobacco tax directive to reach 90€ of excise per 1000 cigarettes leads to progressive redistribution of income among three income groups.**
- **Net income gains for households with the lowest income range from 1.7 to 2.4 percent, or 11,069-16,300 RSD annually.**
- **When the change in pensions is included, the gains increase to 2.8 percent or 19,320 RSD annually.**
- **For the high-income group, net change is around 0.01 percent (96 RSD annually).**

Background

The World Health Organization (WHO) estimates more than eight million people worldwide die from tobacco use every year. Currently, most of the world’s tobacco users live in low- and middle-income countries. High smoking prevalence in those countries causes smoking-related diseases, consequently contributing to many premature deaths. Estimates show that in Serbia, with almost 2.2 million smokers (38 percent of the adult population), there were more than 15,000 deaths due to smoking in 2016 (Kilibarda, 2021).

At the end of 2020, the total excise on the weighted average price for manufactured cigarettes was reduced to 58.7 percent as compared to 2017, when it was 61.0 percent. Excises have grown from EUR 1.21 per pack to EUR 1.46 per pack. Consumption volume and

prevalence rates have been decreasing since 2005, and at least part of this effect has been due to the increase in cigarette taxes and consequently cigarette prices (Vladisavljevic et al, 2020). Despite the effectiveness of these tobacco control policies, the socioeconomic costs of smoking are still very high in Serbia.

This study is the first to empirically assess the progressivity of tobacco taxes across three income groups in Serbia, using two different scenarios (Table 1)

Methodology

This brief presents the estimated impact of a tax increase on a household’s disposable income through a change in tobacco consumption, smoking-related medical costs, and a change in lost productivity from tobacco-attributable premature deaths on the household



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budgets. Net household income effects were calculated as the sum of the following: (A) the change in tobacco expenditure (accounting for price elasticities by income groups: low-, middle-, and high-income), (B) the change in medical expenses (using the

relative risk of morbidity/mortality from smoking and smoking-attributable fraction for smoking-related diseases), (C) the change in years of productive life (considering the years of working life lost among the working population) and (C+) the change in pensions.

Table 1. Change in the structure of cigarette price in Serbia with 10% and 43.6% increase of specific excise tax, 2019 (RSD)

		Price	Net of tax	Specific excise	Ad valorem excise	VAT	tax share	excise share
	initial	274.24	67.28	70.75	90.50	45.71	75.47%	58.80%
Scenario 1	10% increase	288.30	67.28	77.83	95.14	48.08	76.66%	59.99%
Scenario 2	43.6% increase	335.53	67.28	101.60	110.72	55.92	79.95%	63.28%

Source: Tobacco administration office in Serbia, authors' calculations

Change in tobacco expenditure

A price increase of 22.4 percent (resulting from a specific excise tax increase of 43.6 percent) leads to a 0.3 percent increase in disposable income.

The high-income group, on the other hand, would experience a loss of 0.05 percent.

Change in health costs

Increasing tobacco taxes could further boost the progressive effect on income through the resulting reduction of tobacco-related medical expenditures, with the positive impact of reduced health expenses on income gains of up

to 0.8 percent. The higher benefits in the poorest group are derived from higher responsiveness to price changes and a lower income base, similar to the changes in tobacco expenditures in part A of the model.

Change in productivity

The increase in tobacco taxes results in a decline in smoking prevalence. This not only reduces expenses for treating smoking-related diseases, but it would decrease the number of smoking-attributable

deaths. The positive effects of up to 0.9 percent for low-income group are obtained through higher earnings associated with the lower number of years of working life lost (YWLL).



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Change in pensions

A decrease in the number of smoking-attributable deaths has positive effects of up to 0.8 percent for the low-income group, which are obtained through

higher earnings associated with extended years of life, hence receiving pensions for up to an additional 10 years.

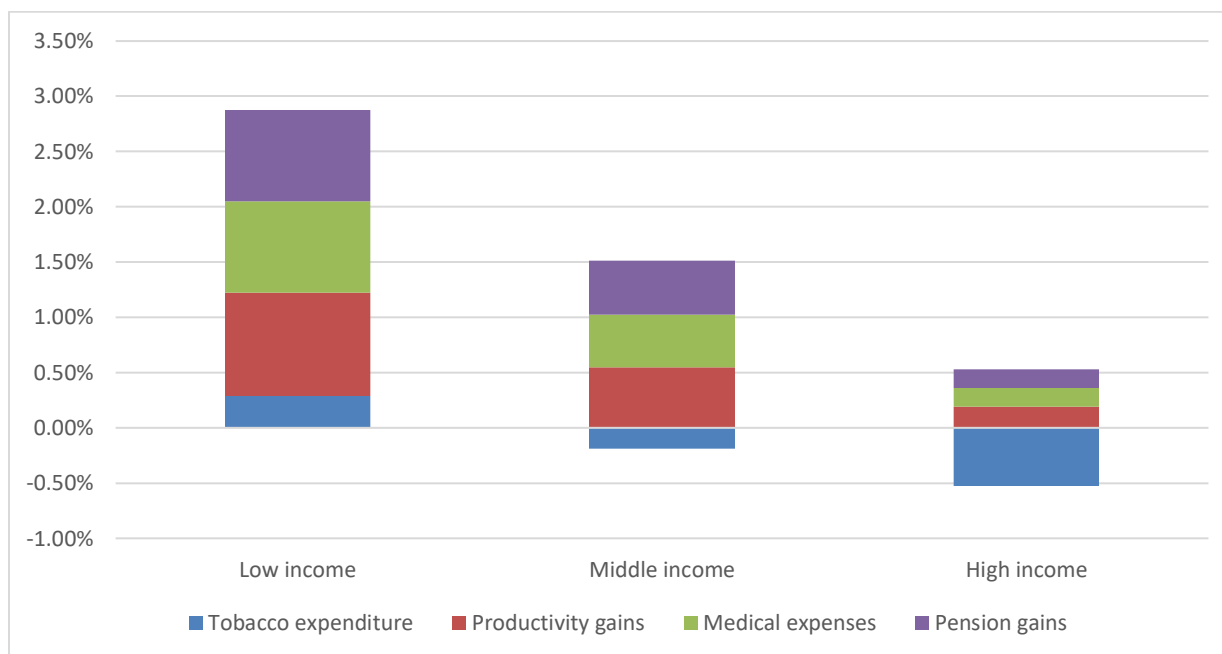
Net gains

The overall estimated net gains from the changes in consumption, medical costs, and productivity are positive (Figure 1), confirming the progressivity of the tobacco tax.

are estimated for the low-income group. After a 22.3-percent price increase resulting from a 43.6-percent specific excise tax increase, the simulated net income gain is 2.8 percent in this group. For the high-income group, the effect is 0.01 percent.

The highest gains in disposable income

Figure 1. Net gains in disposable income after a 43.6 percent tax increase



Tobacco excise taxes show progressivity: a higher cigarette tax would have a progressive effect on the overall distribution

of income because the poorest population would benefit the most from this tax policy, having an increase in the disposable net income by up to 19.320 RSD annually.

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Policy Recommendations

1. **Raise the specific excise tax in Serbia by at least 43.6 percent, resulting in an increase of the retail price by 61 RSD** to reach the EU directive recommended level of an overall excise rate of at least EUR 90 per 1,000 cigarettes in order to effectively reduce consumption and the high prevalence of tobacco use.
2. **Promote public awareness programs on the health risks and costs of tobacco use.** Revenues collected from excise taxes do not cover the externality costs of medical expenses and loss in productivity. Therefore, the public should be aware of the importance of reduced smoking prevalence and intensity that simultaneously increases revenues and decreases costs at the national level.
3. **Ensure strong enforcement of tobacco tax collection** to achieve the full benefits of the tax reform to the population. Strong enforcement to minimize illicit sales, especially of roll-your-own tobacco, is critical to efficiently collect taxes and minimize tax avoidance and evasion. This will lead to a reduction in tobacco use as well as its negative consequences on health and productivity.

References

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Acknowledgments

Institute of Economic Sciences is funded by the University of Illinois Chicago's (UIC) Institute for Health Research and Policy to conduct economic research on tobacco taxation in Southeastern Europe. UIC is partner of the Bloomberg Philanthropies' Initiative to Reduce Tobacco Use. The views expressed in this document cannot be attributed to, nor can they be considered to represent, the views of UIC, the Institute for Health Research and Policy, or Bloomberg Philanthropies.