

**BACKGROUND**

**Economic burden of tobacco smoking**

Bosnia and Herzegovina (BiH) has one of the highest smoking rates in the world: 41 percent of adults are current smokers, and half of them consume more than 20 cigarettes daily. Most smokers (about 60 percent) began smoking regularly between the ages of 18 and 24,<sup>1</sup> and more than 15 percent of students aged 13–15 report having tried smoking. Cigarette smoking costs the government and society each year. The estimated total cost of smoking in BiH in 2019 was between 2.0 percent and 3.5 percent of GDP, which is significantly greater than the revenue generated by tobacco taxes.

**Tax structure**

In the period 2009–2019, specific excise tax in BiH was increased annually by 0.077 EUR per pack of cigarettes. The last adjustment of the specific excise tax was in 2019. In the subsequent period, only the minimum excise was increased but not enough to have a significant effect on consumption.

Because there was no significant change in taxation or in the tax structure, the share of tax in the retail sale price remained almost the same. The tax structure consists of an ad valorem tax (42 percent of retail sale price), a specific excise tax (0.84 EUR per 20-cigarette pack since 2019), and a unique standard value-added tax rate of 17 percent. Figure 1 shows that the average tax burden in BiH on cigarettes for 2023–2025 is 86 percent of the retail sale price. Compared to our previous estimations, the average tax burden in BiH on cigarettes dropped by one percentage point. This decrease is not due to excises or VAT, because these were not increased, but net of tax increased by one percentage point.

Cigarette prices in BiH are lower than those in the surrounding countries and in the EU. This makes cigarettes in BiH more affordable. It also means that there is much room for improvement in BiH tobacco tax policy.

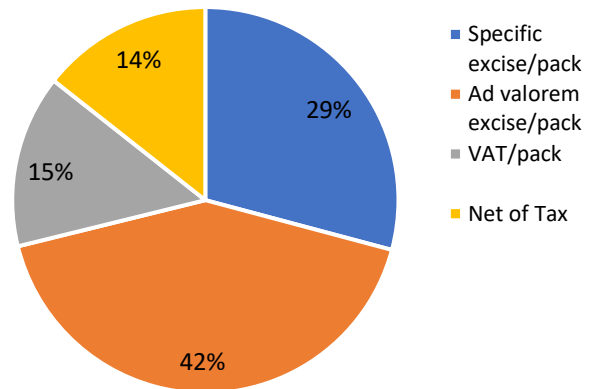
**STUDY METHODOLOGY AND FINDINGS**

The tobacco tax simulation is based on the most recent data on issued excise stamps and covers 2024–2025 with different scenarios regarding price, income, and cross-price elasticities, combined with different price segments. The impacts of specific excise tax increases on adult prevalence and youth initiation are also examined.<sup>2,3</sup>

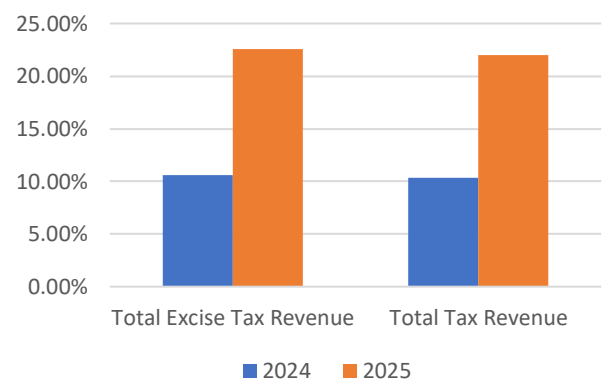
**Impacts of tobacco tax increases on tax revenues**

In this study, we present revised results based on a similar model from 2022.<sup>4</sup> The new data on cigarette consumption from 2023 are 27-percent higher than the initial estimation, and the total market value is 32-percent higher than the first estimation.

**Figure 1. Structure of cigarette retail sale price, 2023–2025 (average)**



**Figure 2. Tobacco tax revenues average growth rate 2023=100**



Source: Authors' calculation based on Borović, Z., Gligorić, D., Vidović, N. & Ritan, V. (2023). *Bosnia and Herzegovina tobacco excise tax modeling – Revised model*. Banja Luka: University of Banja Luka.

<sup>1</sup> Gligorić, D., Kulovac, D. P., Micic, L., & Vulovic, V. (2024). Economic cost of cigarette smoking in Bosnia and Herzegovina. *Tobacco Control*, 33(Suppl 2), s95-s100.  
<sup>2</sup> Ibid.  
<sup>3</sup> Gligoric, D., Borović, Z., Vidović, N., Ritan, V. & Vulović, V. (2024). *Effects of Tobacco Control Policies and Cigarette Pricing on Smoking Initiation Among Youth in Bosnia and Herzegovina*. Tobacconomics Working Paper Series, No. 24/2/5.  
<sup>4</sup> Borović, Z., Mičić, Lj., Gligorić, D., & Preradović Kulovac, D. (2023). *Bosnia and Herzegovina tobacco excise tax modeling*. Banja Luka: University of Banja Luka.

Figure 2 shows that tobacco excise tax revenues and total tax revenues would grow on average by 11.5 percent in 2024 and 23.5 percent in 2025 compared to 2023.

The simulation results, summarized in Table 1, suggest that a 15-percent increase in the specific excise tax on cigarettes in 2024 and 2025 would increase average retail sales prices by 11 percent, which would lead to an average decrease in packs sold between 1 and 2.9 percent.

Since the demand for cigarettes is inelastic (meaning the price change leads to a proportionally smaller decline in consumption), there would be an annual increase in total excise revenue—estimated between 98 and 135 million BAM—with an estimated average increase in total tax revenue between 114 and 159 million BAM.

**Table 1.** Average annual growth rate

	Total excise revenue	Total revenue	Quantities of packs sold	Prices
2024	10.61%	10.34%	-1.70%	10.91%
2025	10.83%	10.57%	-1.71%	11.19%

Source: Authors' calculations based on Borović, Z., Mičić, Lj., Gligorić, D., & Preradović Kulovac, D. (2023). *Bosnia and Herzegovina tobacco excise tax modeling*. Banja Luka: University of Banja Luka and Indirect Taxation Authority (2023). Data on issued tobacco excise stamps obtained on request of the research team.<sup>5</sup>

## Impacts of tobacco tax increases on health and youth smoking initiation

In BiH, by 2025, adult smoking prevalence would decrease from 41.1 percent to 37.4 percent, on average, due to the increased specific excise tax. Depending on the price increase applied by tobacco sellers, reduction of smoking prevalence would prevent between 9,006 and 19,133 premature adult deaths, on average.

The smoking initiation of adolescents is a pressing public health matter, since more than 15 percent of young adolescents (aged 13–15) have already consumed cigarettes in BiH. An increase in the specific excise tax would affect adolescents directly by decreasing the probability of youth smoking initiation because young people are typically more sensitive to price compared to older people. There are also significant indirect effects of increased specific excise taxes. Adolescents are particularly vulnerable to peer pressure and to emulating behaviors of others around them. Higher cigarette prices deter smoking in both parents and classmates—the two largest influences on young people. The number of youths who would be deterred from smoking as a result of the price increase is between 3,129 and 3,159, which would save, on average, between 1,251 and 1,264 youth lives, depending on the price increase applied.

## THE IMPORTANCE OF ESTIMATING THE IMPACTS OF TOBACCO TAX INCREASES ON TAX REVENUES AND PUBLIC HEALTH

The University of Banja Luka, Faculty of Economics' study<sup>6</sup> offers detailed analyses of the effects of tobacco tax increases on both tax revenues and public health. Policy makers in BiH halted further increases in the specific excise upon reaching the EU's excise burden threshold of 90 EUR per 1000 sticks in 2019, partly due to concerns that additional tax increases might reduce indirect tax revenues. Despite reaching this minimum benchmark, cigarettes in BiH remain significantly cheaper than in much of the EU, reinforcing the fact that tobacco taxes need to be raised sufficiently and regularly to stay ahead of both inflation and income growth.

This study provides crucial evidence supporting more effective tax policy decisions. It demonstrates that raising the specific excise would not only boost indirect tax revenues, but also lower smoking prevalence by decreasing probability of adolescents initiating smoking and motivating some adult smokers to quit, and save lives by preventing premature smoking-related deaths.

## POLICY RECOMMENDATIONS

**Based on the findings of this research, the following recommendations would help to improve tobacco tax policies:**

- The evidence strongly demonstrates that the government is advised to shift its narrow perspective on tobacco excise tax and instead view it as a dual-purpose tool. Tobacco tax is, primarily, a key instrument in reducing

<sup>5</sup> Indirect Taxation Authority. (2023). Data on issued tobacco excise stamps obtained on request of the research team

<sup>6</sup> Borović, Z., Mičić, Lj., Gligorić, D., & Preradović Kulovac, D. (2023). *Bosnia and Herzegovina tobacco excise tax modeling*. Banja Luka: University of Banja Luka.

tobacco consumption, and not only and not primarily, a source of revenue. A portion of this revenue should be strategically invested in public health initiatives, including tobacco control measures.

- The tobacco taxation policy should include a structured plan for consistent annual increases in the tobacco excise tax well above both inflation and economic growth to make cigarettes less affordable. For the first few years, the policy should be based on shock therapy - increase of specific excise in the first year should be 50 percent. Such a policy would effectively reduce overall tobacco use, limit secondhand smoke exposure, and discourage both the initiation and continuation of smoking habits.
- Government should intensify its broader tobacco control efforts. This includes enforcing no-smoking zones in public areas, engaging in robust anti-tobacco advocacy through mass media and social networks, and enhancing the visibility and impact of health warnings on tobacco products.
- Considering the high smoking prevalence among youth, the government should develop a comprehensive strategy to decrease the smoking pandemic among this most vulnerable population. It should consider all aspects that could affect their propensity to initiate smoking, such as school environment, parents' and peer impact, awareness of adverse effects of smoking, and accessibility of cigarettes near schools.

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