

BACKGROUND

Smoking prevalence

Bosnia and Herzegovina (BiH) has the 11th highest smoking prevalence in the world: 41 percent of adults in BiH smoke. Of these adults, 60 percent developed a daily nicotine addiction between the ages of 18 and 24. Additionally, many are very heavy smokers, with 50 percent of current smokers consuming more than 20 cigarettes daily.¹

Tax structure

The tax structure and share of the cigarette retail sale price in BiH for 2023 is unchanged from previous years: an ad valorem tax (42 percent of the retail sales 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 87% of the retail sales price.

The specific excise increased annually by 0.077 EUR per pack between 2009 and 2019. Since 2020, however, policy makers in BiH have stopped the annual increase of the specific excise, citing the attainment of the European Union's (EU) minimum threshold for excise tax burden of 90 EUR per 1000 cigarettes.

The tobacco tax burden in BiH is below the EU average, even though the EU minimum threshold has been achieved. Moreover, prices in BiH remain low compared to many other countries in the region, and cigarettes are relatively much more affordable. This means that there is significant room for improvement in BiH tax policy.

STUDY METHODOLOGY AND FINDINGS

Utilizing current data on legal cigarette sales and tax structure, we employ tobacco tax simulation modeling to project revenue changes and public health impacts. Our analysis provides forecasts extending through 2024–2025. We assess the higher excise tax's effect on government revenues by considering various scenarios, factoring in price and income elasticities across different price segments. The study also examines public health implications, focusing on the effects of increased prices on smoking prevalence, the number of smokers, and reductions in premature deaths.²

Impacts of tobacco tax increases on tax revenues

This study uses revised estimates for BiH tobacco tax revenues made by updating the model from 2022³ with new data on cigarette consumption, which increased 14 percent since the first estimate, and the total market value, which is 15 percent higher compared to the first estimate. Figure 2 shows that compared to 2023 excise and total revenues will grow on average by 11 percent in 2024 and 24 percent in 2025.

Figure 1. Structure of the retail sale price, average 2023-2025

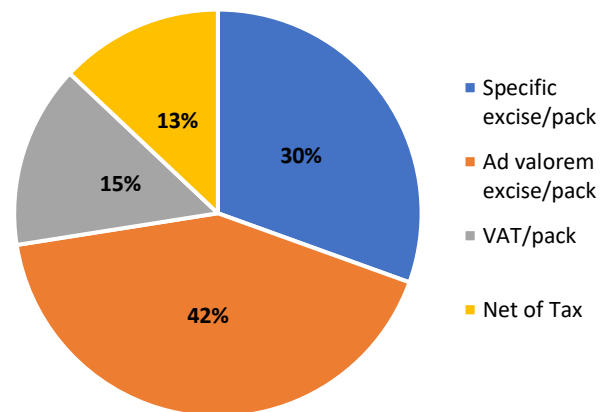
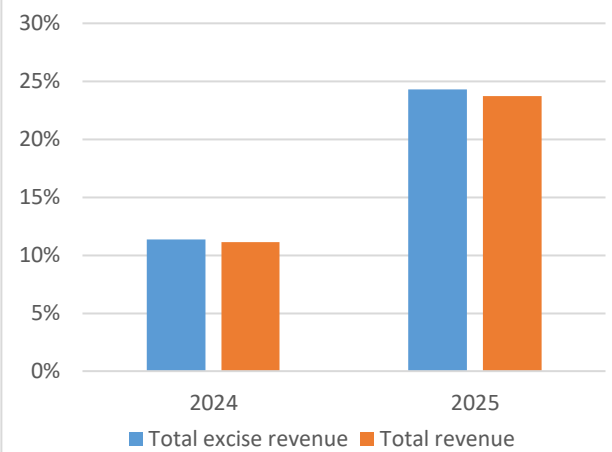


Figure 2. Revenue average growth rate 2023=100



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.

¹ Gligorić, D., Preradović Kulovac, D., Mičić, Lj., & Vulovic, V. (2023). Economic cost of cigarette smoking in Bosnia and Herzegovina. *Tobacco Control*, 0:1–6. Published Online 06 January 2023. doi: 10.1136/tc-2022-057722

² Ibid.

³ Borović, Z., Mičić, Lj., Gligorić, D., & Preradović Kulovac, D. (2023). *Bosnia and Herzegovina tobacco excise tax modeling*. Banja Luka: University of Banja Luka.

The analysis, summarized in Table 1, suggests that a 15-percent increase in the specific excise tax on cigarettes in 2024 and 2025 would increase average retail sales prices between 11.27 and 11.4 percent, which would lead to an average decrease in packs sold between 0.3 and 2.6 percent.

Given that demand for cigarettes is inelastic (the change in price is proportionally greater than the decline in consumption), there will be an annual increase in total excise revenue—estimated between 101 and 131 million BAM—with an estimated average increase in total tax revenue of between 118 and 154 million BAM.

Table 1. Average annual growth rate

	Total excise revenue	Total revenue	Quantities of packs sold	Prices
2024	11%	11%	-1.2%	11.30%
2025	12%	11%	-1.2%	11.2%

Source: Authors' calculation 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.⁴

Impacts of tobacco tax increases on health and youth smoking initiation

The revised estimates show that an increase in the specific excise would reduce the adult smoking prevalence in BiH by the same percentages as in the initial model (2023), from 41.1 percent to 37.4 percent by 2025. This reduction of smoking prevalence would prevent premature deaths—approximately between 10,647 and 21,175 annually, on average.

Smoking initiation among youth in BiH is a significant problem challenging policy makers, as more than 15 percent of students aged 13 to 15 have tried smoking. An increase in the specific excise would trigger price increases because tobacco companies need to maintain profits, which will have direct and indirect effects on the smoking initiation of adolescents. Directly, increased prices lead to a lower probability that adolescents will initiate smoking. The indirect effects include the dynamic that higher prices will also drive down parental and peer smoking, both major reasons why kids start to smoke. The number of youths who would be deterred from smoking as a result of the price increase is between 8,067 and 16,595.

WHY IS IT IMPORTANT TO ESTIMATE THE IMPACTS OF TOBACCO TAX INCREASES ON TAX REVENUES AND ON PUBLIC HEALTH?

The University of Banja Luka's study⁵ 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, partly due to concerns that additional tax increases might reduce indirect tax revenues. Despite this, cigarettes in BiH remain significantly cheaper than in much of the EU.

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

POLICY RECOMMENDATIONS

Based on the findings of this research, the following recommendations are offered:

- The evidence strongly demonstrates that the government is advised to shift its perspective on tobacco excise tax and instead view it as a dual-purpose tool. Tobacco tax should serve not only as a source of revenue, but also as a key instrument in reducing tobacco consumption. 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 greater than the revenue generated by tobacco taxes.⁶ A portion of this revenue should be strategically

⁴ Indirect Taxation Authority. (2023). Data on issued tobacco excise stamps obtained on request of the research team

⁵ Borović, Z., Mičić, Lj., Gligorić, D., & Preradović Kulovac, D. (2023). *Bosnia and Herzegovina tobacco excise tax modeling*. Banja Luka: University of Banja Luka.

⁶ Gligorić D., Preradović Kulovac, D., Micic, L., & Vulovic, V. (2023). Economic cost of cigarette smoking in Bosnia and Herzegovina. *Tobacco Control*. doi:10.1136/tc-2022-057722

invested in public health initiatives, particularly in tobacco control. The policy should include a structured plan for consistent annual increases in the tobacco excise tax well above both inflation and economic growth. Such a policy is projected to effectively reduce overall tobacco use, limit secondhand smoke exposure, and discourage both the initiation and continuation of smoking habits.

- The empirical evidence also demonstrates that the government should intensify its 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. These measures are not only essential for creating a comprehensive tobacco control environment but many studies consistently show that they amplify the positive public health effects of tobacco tax increases, too.
- Following international best practices, the government should mandate the inclusion of smoking status in patients' health records. This will facilitate a better understanding of the correlation among smoking, premature mortality, and its broader health implications.

Acknowledgments

The University of Banja Luka (UBL), Bosnia and Herzegovina, is part of a regional network of researchers in Southeastern Europe on tobacco taxation. UBL has been working in cooperation with the Tobacconomics program now at Johns Hopkins University (JHU) (previously housed at the University of Illinois Chicago, or UIC) to conduct economic research on tobacco taxation in Bosnia and Herzegovina. JHU is a partner of the Bloomberg Initiative to Reduce Tobacco Use. The views expressed in this document cannot be attributed to, nor do they represent, the views of JHU, UIC, or Bloomberg Philanthropies.

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