BOSNIA AND HERZEGOVINA (B&H)

Evaluating the Distributional and Poverty Effects of Tobacco Taxation in Bosnia and Herzegovina

KEY FINDINGS

- Despite a decline in the individual poverty rate in Bosnia and Herzegovina (B&H) from 17.9 percent in 2011 to 13.5 percent in 2022, tobacco spending and smoking-related health costs continue to place additional financial pressure on economically vulnerable households.
- Together, tobacco spending and estimated smoking-related health costs increase the poverty rate from 13.58 to 15.06 percent—impoverishing approximately 49,700 additional people, including about 4,200 children under 14.
- Raising the minimum cigarette excise would reduce the additional poverty effect to impact only around 3,000 people, with the poverty rate rising slightly from 13.58 to 13.66 percent. Accounting for tobacco spending would increase the poverty rate among households with tobacco users from 14.50 to 14.59 percent. In pre-tax and post-tax scenarios the effect falls on households already near the poverty line, where the poverty rate increases from 40.55 to 41.10 percent.
- Tobacco-related financial burdens already increase the aggregate poverty deficit by approximately BAM 6.2 million per month, or BAM 74.4 million annually. By comparison, approximately BAM 6.4 million annually would be sufficient to offset the simulated short-run increase in the aggregate poverty deficit following the proposed minimum excise increase, assuming perfect targeting. Given the additional revenues projected under the revised minimum excise scenario,[1] only a small fraction of the expected fiscal gains would be required to compensate economically vulnerable households. Concerns regarding short-run distributional effects should not represent a major obstacle to future increases in the minimum excise tax.

STUDY METHODOLOGY AND RESULTS

The study combines the 2021/2022 Household Budget Survey (HBS) with 2025 cigarette prices and excise-stamp data provided by the Indirect Taxation Authority (ITA). Household consumption is adjusted for household size and composition using the Organisation for Economic Co-operation and Development (OECD)–modified scale. Poverty is assessed against the study's relative poverty line. A static microsimulation applies consumption-group-specific demand elasticities to estimate responses to higher cigarette prices, assuming full pass-through of the excise tax increase.

The methodology consists of two steps. First, the impoverishing effect of tobacco consumption is evaluated using poverty measures which capture the incidence, depth, and severity of poverty. The analysis considers both household tobacco expenditure and smoking-attributable health expenditures in order to evaluate how tobacco-related financial burdens affect household welfare and poverty outcomes (Table 1). Distributional outcomes are evaluated using the Gini coefficient, concentration indices (CI), the Kakwani progressivity index, and the Reynolds–Smolensky (RS) redistributive effect index.

Table 1. Descriptive statistics for households reporting tobacco expenditure, pre-tax

	Prevalence (%)	Budget share spent on tobacco (%)	Budget share – smoking-attributable health costs (%)	Number of household members (OECD-modified scale)
Whole sample	37.72 (34.59; 40.95)	5.98 (5.46; 6.49)	2.33 (1.9; 2.76)	1.93 (1.88; 1.97)
RS	36.47 (31.62; 41.62)	6.52 (5.92; 7.12)	2.25 (1.8; 2.7)	2.00 (1.93; 2.08)
FB&H	38.33 (34.35; 42.47)	5.72 (5.04; 6.41)	2.37 (1.77; 2.96)	1.89 (1.84; 1.96)

Note: All monetary values are deflated to 2010 prices using the consumer price index (CPI). Values in parentheses indicate 95% confidence intervals.
Source: Authors' calculations based on HBS data CPI obtained from the ASB&H (2025).

[1] Vidović, N., Borović, Z., Gligorić, D., & Ritan, V. (2025). *Tax modeling of a revised minimum excise scenario in Bosnia and Herzegovina* (Policy Brief). Economics for Health, Faculty of Economics, University of Banja Luka. https://www.economicsforhealth.org/files/research/1055/ubl-pb-tax-model-revised-minimum-excise-scenario-am-revised-ubl-30.12-jd-md.pdf

Second, the hypothetical tax scenario examined in this study models a 32.6-percent increase in the minimum excise rate, raising it from its original level of BAM 3.77 to BAM 5.00 per cigarette pack. Post-tax poverty and inequality indicators are then recalculated in order to assess the short-run distributional effects of the simulated excise increase across household groups and entities in B&H. Both the baseline and post-tax scenarios make use of detailed data on excise stamps and corresponding 2025 retail cigarette prices.

Table 2. Tobacco use effect on poverty: pre-tax vs. post-tax increase

Indicator	Baseline pre-tax	Post-tax (Δ%)
Poverty rate (%)	13.58	0.50
Number of people below the poverty line	457,372	0.65
Number of children below the poverty line	57,154	0.39

Source: Authors' calculations based on HBS data CPI obtained from the ASB&H (2025)

FINDINGS FROM THE SIMULATED EXCISE INCREASE

At the aggregate B&H level, the post-tax scenario produces modest declines in both tobacco and health expenditure shares. The tobacco budget share decreases from 5.98 to 5.84 percent, while the health expenditure share declines from 2.33 to 2.15 percent. Similar patterns are observed across both the Federation of Bosnia and Herzegovina (FB&H) and the Republic of Srpska (RS).

Comparing the pre-tax and post-tax scenarios (Table 2), the simulated 32.6-percent increase in the minimum excise rate—which translates into an approximately 15.87-percent increase in average cigarette prices—leads to a modest short-run increase in poverty. The poverty rate rises from 13.58 to 13.66 percent, an increase of 0.08 percentage points, or 0.59 percent relative to the pre-tax level. The total number of individuals below the poverty line increases by 0.65 percent, equivalent to approximately 2,990 additional individuals. Among children, the number below the poverty line increases by 0.39 percent, equivalent to approximately 226 additional children.

POLICY RECOMMENDATIONS

- Increase the minimum cigarette excise tax to BAM 5.00 per pack, as proposed in the revised minimum excise scenario, alongside targeted measures to address the short-run effects on economically vulnerable households.
- Allocate a portion of the additional excise revenues toward targeted support for economically vulnerable households. The simulation indicates that approximately BAM 6.4 million annually would be sufficient to offset the short-run increase in the aggregate poverty deficit under perfect targeting.
- Expand accessible smoking cessation services, prevention programs, and public awareness campaigns, particularly for low-income smokers, to help households reduce tobacco spending and smoking-related health risks.
- Regularly adjust cigarette excise taxes to account for inflation and income growth, preventing cigarettes from becoming more affordable over time.
- Strengthen measures to prevent youth smoking initiation, including enforcement of age restrictions on tobacco sales; restrictions on tobacco advertising, promotion, and sponsorship; and prevention programs tailored to young people.

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