



THE IMPACT OF TOBACCO TAX POLICY ON DIFFERENT SOCIOECONOMIC GROUPS IN BOSNIA AND HERZEGOVINA

Even though there has been a steady decline in smoking prevalence in Bosnia and Herzegovina (B&H), smoking remains a significant health risk in the country. Current tobacco tax policy in B&H assumes a gradual annual increase of the specific excise tax on cigarettes, but gradual increases have not been sufficient to significantly reduce consumption. There is, therefore, space for improvement by increasing the specific excise tax on tobacco.

Tobacco consumption trends in B&H

Since 2007 there has been a continued decline in smoking prevalence, from 57.5 percent in 2007 to 33.8 percent in 2015, and the decline in average cigarette consumption per household, from 37.4 packs in 2007 to 22.8 packs in 2015 (Figure 1).¹ However, average real household spending on cigarettes has increased by 45.75 percent over the past 8 years.²

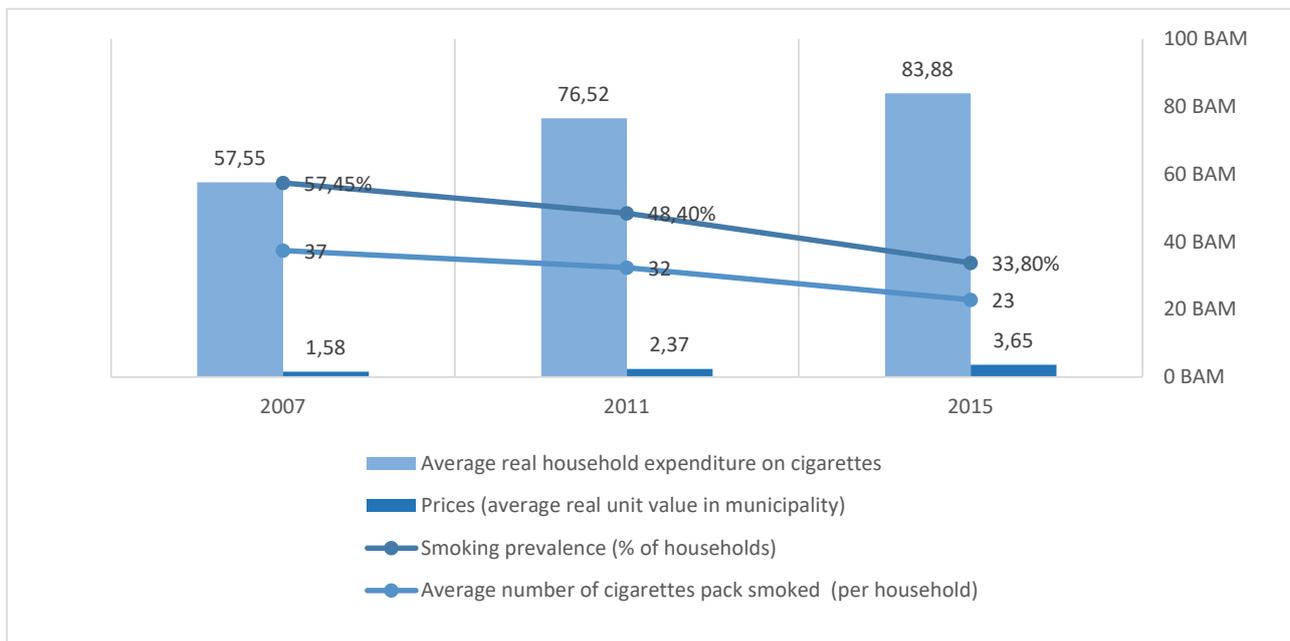


Figure 1. Cigarette use in B&H: prevalence, expenditures, and number of cigarettes smoked¹

¹ As HBS data does not provide information on market prices, unit values are used as a proxy and are calculated as a ratio of spending on cigarettes by a household and purchased quantity.

Source: Household Budget Surveys (HBS) in B&H in 2007, 2011 and 2015, Statistics Agency B&

¹ It is likely that certain households switched to using cut tobacco, which is cheaper compared to cigarettes, but due to lack of sufficient data, it was not included in the analysis.

² Household Budget Surveys (HBS) in B&H in 2007, 2011 and 2015, Agency for Statistics B&H

Changes in smoking prevalence and smoking intensity

Increases in cigarette prices have a significant impact on both the prevalence and intensity of smoking in B&H. A 10 percent increase in price leads to a 5.6 percent reduction in the number of smokers, and 4.6 percent reduction in smoking intensity of those who smoke. At the same time, a 10 percent increase in income would increase both prevalence and smoking intensity by 3.7 percent and 4.3 percent, respectively. The overall price elasticity of cigarette consumption is very high. A 10 percent increase in price would reduce the quantity of cigarettes consumed by 10 percent. About 55 percent of this effect is due to a reduction in prevalence, and around 45 percent to a decrease in quantity of cigarettes consumed by those who smoke.³ Having in mind that price is a significant factor in tobacco control, higher prices resulting from an excise tax increase would reduce total consumption as well as discourage initiation of smoking.

Responses to price and income changes among different income groups

Research results show that smoking prevalence in B&H decreases in all income groups as cigarette prices increase and smoking prevalence is higher among households in the high-income group.⁴ Quantity of cigarettes consumed also decreases as the price of cigarettes increases. High-income households smoked a higher quantity of cigarettes during the observed period, compared to the other households.

Also, smoking prevalence and cigarette consumption differences among different income groups increase over time as cigarette prices increase. For example, research results show that as prices increase, smokers in the low-income group experience more reductions in smoking prevalence and cigarette consumption compared to higher income groups.

The reason for the greater reduction of smoking prevalence and cigarette consumption in the low-income group compared to the other groups is because poorer households are relatively more sensitive to price changes. Increasing cigarette prices by 10 percent decreases smoking prevalence by 8.1 percent in low-income households and only about 3.5 percent in high-income households. Therefore, increases in cigarette prices lead to higher decreases in smoking prevalence in low-income households.

Additionally, the effect of income increases on demand for cigarettes is different by socioeconomic group. There is a higher increase of demand for the low-income group as income increases. As salaries have increased in B&H, especially in the public sector, policy makers should consider a significantly higher excise tax increase to compensate for this growth in income.

In terms of the number of cigarettes consumed, an increase in cigarette prices by 10 percent decreases the quantity demanded of cigarettes by 6.1 percent for low-income households and only by about 3.6 percent for high-income households. Households with more members consume less expensive cigarettes regardless of income group and households with higher shares of men spent higher budget shares on cigarettes.

Impact of a specific excise increase on consumption and government revenue

Cigarette taxation in B&H consists of two cigarette excises (specific tax and ad valorem tax) and the value-added tax. After its introduction in the second half of 2009, the specific excise tax has annually increased by about € 0.077, from the initial level of € 0.077 per pack to € 0.84 per pack in 2019. The ad valorem excise has stayed at the same level of 42 percent of retail price.

³ Authors calculations based on data from Household Budget Surveys (HBS) in B&H in 2007, 2011 and 2015, Agency for Statistics B&H

⁴“Regional study - Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, Montenegro, and Serbia - Impacts of tobacco excise increases on cigarette consumption and government revenue in SEE countries. Tobacco taxation project. 2019.

This analysis focuses on three scenarios of increases (10, 25 and 50 percent) to the specific excise tax and examines their impact on tobacco consumption and government revenue.

- Increasing the specific excise tax by 10 percent would reduce overall cigarette consumption by 4.85 percent. At the same time, government revenue would increase by 2.79 percent.
- Increasing the specific excise tax by 25 percent would reduce overall cigarette consumption by 15 percent, while total government revenue would increase by 1.46 percent.
- Increasing the specific excise tax by 50 percent would reduce overall cigarette consumption by 33.24 percent, while total government revenue would decrease by 6.44 percent.

Increasing the specific excise tax by 10 percent or 25 percent would reduce cigarette consumption and at the same time, increase government revenue. However, this simulation does not take into account the savings in health care expenditures for tobacco-related illnesses.

In 2015, the low-income group consumed 25.8 percent of total cigarette consumption in B&H, while the middle- and high-income group consumed 34.2 and 40.0 percent, respectively. According to the simulation, the effect of a 25 percent specific excise increase (Figure 2) is as follows:

- The low-income group would experience the highest decline in consumption (22.1 percent), while in the middle- and high-income group it would decline by 14.0, and 10.3 percent, respectively, leading to the overall reduction in consumption by 14.6 percent.
- There would be a shift in tax burden from the low- to the middle- and high-income groups. While the low-income group would experience a reduction in tax burden by 6.4 percent, the other two income groups would see an increase of 3.3 percent in the middle-, and 7.7 percent in the high-income group, resulting in an overall increase in revenue collection of 2.5 percent.

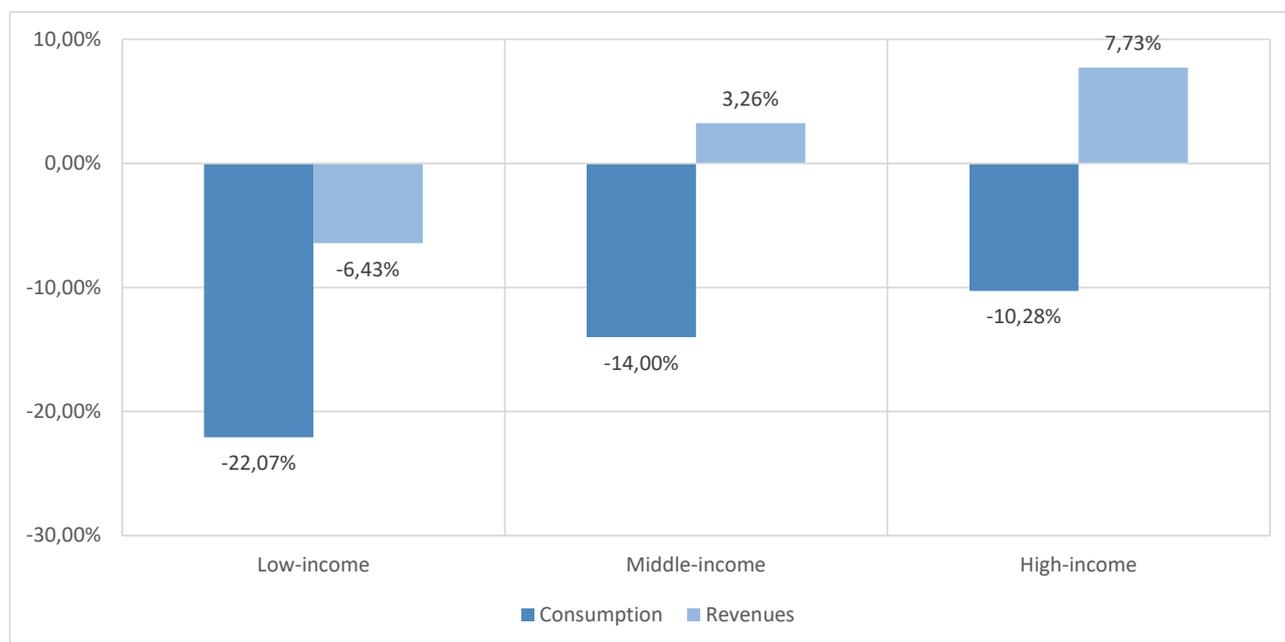


Figure 2. Effects of 25 percent specific excise tax increase on consumption and government budget by income group, base year 2018

Source: Authors' calculations

Policy Recommendations

- A 25 percent excise tax increase would reduce consumption by 14.6 percent, and government revenue would still increase by 2.5 percent. The benefits of increasing the specific excise tax are higher both for society and government revenue (in terms of reducing the costs of health care due to lower consumption of cigarettes). Thus, tobacco taxation policy should include a much larger increase in specific excise tax than current excise tax calendar.
- Increases in income lead to higher tobacco consumption as it makes tobacco more affordable. Having in mind that there is a trend of salary increase in B&H, tax policy should be adequately designed to significantly increase the excise taxes and, through it, prices, to more than offset the impact of higher income on consumption of tobacco.
- Changes in prices and income have different impact on tobacco consumption of different socioeconomic groups. Low-income households respond the most to changes in prices and income and would benefit the most from higher tobacco prices. Not only would their consumption reduce the most (by 22.1 percent), but they would also see a reduction in their tax burden (by 6.4 percent), which would shift to the middle- and high-income groups. Therefore, an increase in tobacco excise tax and price would not hurt, but on the contrary it would benefit the poor in B&H.

Authors

This policy brief was prepared by the team of the University of Banja Luka: Dragan Gligorić, Ljubiša Mičić, Dragana Preradović and Anđela Pepić.

About the project

University of Banja Luka, Entrepreneurship and Technology Transfer Center (ETTC UNIBL) is working in cooperation with the Institute of Economic Sciences from Belgrade, which is coordinating a regional network of researchers in Southeastern Europe on tobacco taxation. The project is funded by the University of Illinois at Chicago's (UIC) Institute for Health Research and Policy to conduct economic research on tobacco taxation in Bosnia and Herzegovina. UIC 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 UIC, the Institute for Health Research and Policy, or Bloomberg Philanthropies.