

Smoking prevalence in the region is very high, while the prices of manufactured cigarettes and roll-your-own tobacco are low.

According to STC-SEE data, 37.6 percent of the adult population in the SEE region smoked either manufactured cigarettes (MC) or roll-your-own (RYO) cigarettes in 2019, which is about nine percentage points higher than in the European average of about 29 percent (WHO, 2019). MC are smoked more frequently (32.8 percent) than RYO tobacco (6.3 percent). The average price per pack of MC in the SEE region is about €2.1, less than half of the European Union average of €4.9 (EC, 2019)

Objective of this research

The effectiveness of tobacco taxation policies depends on consumer responses to price increases.

Based on the STC-SEE data the Institute of Economic Sciences conducted research to investigate **the impact of prices of MC and RYO tobacco on the prevalence and intensity of use of these two tobacco products.**

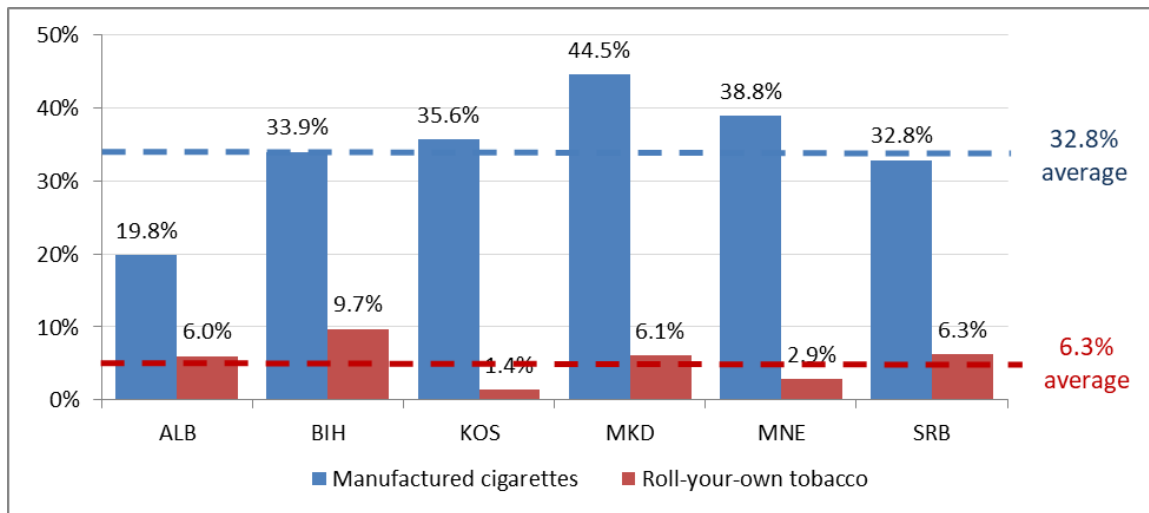


Figure 1.

Prevalence of MC and RYO use

POLICY RECOMMENDATIONS

1. Increase prices of MC through higher excises.

Since higher prices of MC lower its use prevalence, by increasing prices of these products' use through higher excises, prevalence of MC would decline. As MC represent the largest share of the tobacco market by far, this measure is the most important for reducing smoking prevalence.

2. Increase prices of RYO through higher excises, so the prices of these two types of tobacco products to reach a similar level.

The increase of excises on RYO should be higher than for the MCs (from recommendation 1), so that after the increase RYO prices correspond to those of MC. As RYO are typically used as a cheaper alternative to MC, in order to limit incentives for downward substitution

and reduce the overall prevalence, governments should eliminate the price discrepancy between MC and RYO. If the prices of the two products are equal, MC smokers will, instead of switching to RYO as a cheaper alternative, stop using tobacco products altogether. Moreover, increasing excises and prices of RYO would, at the same time, lower the intensity of RYO use.

3. Combine increasing taxes on tobacco products with non-price measures of tobacco control to lower the tobacco consumption.

For example, introduce stricter smoking restrictions and enforce the penalties on those who do not obey, and raise awareness of negative consequences of smoking to increase public acceptance of tobacco control measures.

MAIN RESEARCH FINDINGS

1. S-regions with higher prices of MC have lower MC use prevalence.

Prevalence of MC use varies significantly across the SEE region. The prevalence of MC use among adults is the highest in North Macedonia with 44.5 percent. Albania has the lowest smoking prevalence of MC at 19.7 percent (Figure 1). **This research indicates that s-regions with 10 percent higher MC prices have 5 percent lower smoking prevalence of MC.**

2. RYO tobacco is used as a cheaper alternative to MC.

Results suggest that smokers in the s-regions with higher prices of MC have a higher likelihood of choosing RYO over MC. S-regional differences in RYO prices have no effect, as prices of RYO are significantly lower than of MC. Additionally, 93 percent of RYO tobacco users state relatively lower prices as a reason for smoking RYO tobacco. Therefore, **in s-regions with higher prices of MC, smokers tend to switch to RYO tobacco only as it is a cheaper option.** Increasing the prices of RYO to that of MC would remove this price differential and push more people to quit smoking altogether.

3. S-regions with higher prices of RYO have lower RYO use intensity.

Results also suggest that in s-regions with 10 percent higher prices of RYO tobacco, RYO users use about 4 percent less RYO cigarettes per day.

High tobacco consumption has serious health and socio-economic consequences.

Tobacco consumption has serious health consequences as approximately half of smokers die from tobacco-related diseases ([NCI & WHO, 2016](#)). High smoking prevalence also poses a significant economic burden on households, especially given high poverty rates in the region. Previous research has indicated that tobacco taxation is one of the most effective tools for reducing tobacco consumption.

METHODOLOGY

Price elasticities of MC and RYO cigarettes were analysed by examining cross-country variation in prices and tobacco consumption and controlling for other relevant characteristics. These elasticities indicate if differences in smoking prevalence/intensity depend on the regional differences in prices of MC and RYO. The estimation was done using the conceptual framework of the two-part model which estimates the overall demand elasticity as a sum of two parts: prevalence elasticity and conditional demand (intensity) elasticity. Moreover, as these two types of tobacco products are potential substitutes, this study also estimates the cross-price elasticities of the products.

4. Positive attitudes towards tobacco control measures and smoking restrictions are associated with lower smoking prevalence and intensity.

Results show that more support for tobacco price increases and more smoking restrictions are associated with lower smoking prevalence and intensity. These measures are not an alternative to higher tobacco taxation. On the contrary, the research shows that price and non-price measures have an independent effect on reducing smoking prevalence and intensity; the combination of these measures yield even greater reductions in tobacco use.

Survey on Tobacco Consumption in SEE (STC-SEE)

STC-SEE was conducted in six countries (Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia, and Serbia) in September/October 2019 on a sample of 7,000 adults aged between 18 and 85.

STC-SEE data is based nationally representative sample of adults in each country. For the purpose of this research, STC-SEE data is divided into 23 statistical regions (hereafter, s-regions). This data provides detailed information on tobacco consumption, cessation, expenditures, on tobacco and prices as well as on attitudes towards tobacco consumption, prices and control measures, access restrictions, exposure to tobacco advertising, and socio-demographic characteristics.

About the project

The Institute of Economic Sciences from Belgrade, Serbia 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 Serbia. 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.

