



tobaccotaxation

Economic Research Informing Tobacco Tax Policy

**Accelerating Progress on Effective Tobacco Tax Policies
in Low- and Middle-Income Countries**

**Regional study
Albania, Bosnia-Herzegovina, Croatia, Kosovo,
Macedonia, Montenegro, and Serbia**

Economics of Tobacco and Tobacco Taxation



INSTITUTE OF ECONOMIC SCIENCES, BELGRADE, SERBIA
2019

Contents

1. Executive summary	3
2. Introduction	4
3. The tobacco market	5
3.1. Supply of tobacco products	5
3.1.1. <i>Tobacco farming</i>	5
3.1.2. <i>Manufacturing of tobacco products</i>	7
3.2 Demand for tobacco products	9
4. Tobacco taxation and pricing	10
5. The elasticity of tobacco products	14
6. Key findings and recommendations	16

1. Executive summary

Consumption of tobacco products imposes a significant economic and health burden on a society. Research evidence collected around the world shows that effective tobacco taxation systems can reduce the negative effects of tobacco consumption, decrease prevalence rates, and increase government revenues.¹ The evidence from low- and middle-income countries confirms these same outcomes.

A recent project² in Southeast Europe (SEE) confirmed the same findings. That research was undertaken in seven middle-income SEE countries with a total population of 22 million inhabitants: Albania, Bosnia and Herzegovina (B&H), Croatia, Macedonia, Montenegro, Serbia, and Kosovo. It was conducted in 2018 following the same research methodology, thereby providing a unique source of comparable data for seven SEE countries related to the tobacco products' market, taxation system, tax structure, as well as pricing and its impact on demand and income elasticity of tobacco products.

The research confirmed a negative price elasticity of demand for cigarettes in all the countries. Price and income elasticity were estimated by two different econometric methods: a time-series analysis and an analysis of the household expenditure survey (HES) data. The results are in line with the estimated elasticities in other low- and middle-income countries, ranging from -0.44 to -0.83, based on the timeseries data, and from -0.29 to -1.07 based on the HES data. The estimated income elasticity ranges from 0.24 to 0.91. These results show that a 10% increase in tobacco prices would reduce consumption by between 2.9 and 10.1%. Thus, even higher tobacco prices through increased tobacco excises can have a significant impact on reducing tobacco products consumption. Moreover, tax and price increases should be significant enough to reduce the affordability of tobacco products to limit the impact of increasing income.

Descriptive data show that, with respect to the tobacco market, tobacco manufacturers are strongly influential only in Serbia. In Kosovo and Albania the manufacturers have no significant presence, while importers and the wholesalers heavily impact the market. Tobacco farming in the region has a negative trend, especially in Macedonia which is the largest tobacco producer in the region. Major international companies are increasing their market share as privatization of former state-owned manufacturing companies has finalized.

Tobacco taxes have been levied in all seven countries as a control tool to increase the retail price of tobacco products and to reduce tobacco product consumption. Five of the countries apply a mixed excise system for cigarettes while Albania and Kosovo levy only a specific excise. In 2017, the ad valorem excise tax rate ranged from 9% in Macedonia to 42% in B&H, while the specific excise ranged from €29.5 in Serbia to €46.4 in Albania per 1000 cigarettes. The VAT is levied on tobacco products in all seven countries. The weighted average retail price of cigarettes in 2017 ranged from €1.34 in Macedonia to €3.22 in Croatia. Tobacco tax revenues have been continuously nominally increasing in all seven countries. Except in Croatia, the prevalence has been decreasing over time according to WHO data in the whole region. However, the tobacco excise tax revenues have a continuous increasing trend in all countries.

¹ National Cancer Institute and WHO (2017), NCI Tobacco Control Monograph Series 21 - The Economics of Tobacco and Tobacco Control

² Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries – Southeastern Europe

2. Introduction

This report focuses on tobacco markets, tobacco tax systems, tax structure, pricing of tobacco products, and elasticity estimation in seven countries of the SEE region. Although all countries except Albania have a common historical heritage, as they used to be part of the former Yugoslavia, the socio-economic indicators differ between countries to a large extent (Table 1). Serbia occupies the largest land area and has the largest population, while Croatia has the strongest economy and has been a member of the European Union (EU) since 2013. All other countries in the region are fully committed to EU accession. Serbia and Montenegro are in the process of negotiation, Albania and Macedonia are the official candidates, while B&H and Kosovo are potential candidates.

The CEFTA trade agreement has been in force in the region since 2007, enabling trade flow without customs and other fees between Albania, B&H, Macedonia, Moldova, Montenegro, Serbia, and Kosovo.

Table 1 General info

	ALB	B&H	CRO	KS	MCD	MNE	SER
General info							
Population	2,870,324	3,502,107	4,125,000	1,798,506	2,100,000	620,029	7,020,858
Surface area (sq. km)	28,748	51,209	56,594	10,905	25,713	13,812	88,361
Capital city	Tirana	Sarajevo	Zagreb	Pristina	Skopje	Podgorica	Belgrade
Macroeconomic indicators							
GDP (2017 in millions EUR)	11,576	16,019	44,114	6,282	10,066	4,237	36,795
GDP per capita, (2017 in EUR)	4,000	4,568	11,880	3,356	4,853	6,833	5,226
GDP real growth, (2017 in %)	3.6	4.6	2.8	3.7	0	4.3	1.9
Inflation (2017 in %)	2.2	1.6	1.1	1.5	1.4	1.9	3.0
Unemployment according to LFS (2017 in %)	12.4	19.4	11.2	30.5	22.4	16.1	13.5
Net wages (2017 in EUR)	368	450	1,080	452	394	510	395
Employment level, average (2017 in 000)	1,096	1,253	1,407	157	741	229.3	1,896

Source: National statistics agencies

3. The tobacco market

The tobacco market and tobacco farming are highly regulated in all seven countries in the region, but the influence of different actors on the tobacco market depends on local circumstances. The market value chain consists of the following groups of actors:

- Tobacco farmers
- Tobacco processors
- Tobacco manufacturers
- Wholesalers
- Retailers of tobacco products
- Importers/exporters of tobacco, processed tobacco, and/or tobacco products

In Macedonia there has been a significant presence of tobacco farming, processing and to a certain extent, manufacturing. In Serbia manufacturing of cigarettes and exports of tobacco products have been gaining significance. On the other hand, in countries like Albania, tobacco manufacturing companies do not have a significant presence; the main actors are importers.

3.1. Supply of tobacco products

3.1.1. Tobacco farming

Tobacco is not traditionally grown widely in the region. The only exception is Macedonia, which has a long history and tradition of cultivating and exporting raw tobacco (particularly the Oriental type). Macedonia is among the major Oriental tobacco producing countries in the world, accounting for about 3% of world production. However, while the area under tobacco cultivation occupies 3.4% of the total arable land in the country,³ tobacco farming has a rather small share in total agricultural production and has been declining.

Official statistics show that tobacco farming in Albania represents only a small fraction of agriculture, with just 0.1% of arable land under tobacco cultivation. Tobacco in B&H has been losing its importance for agricultural producers, as the harvested tobacco area has decreased by over 60% since 2000. In Croatia, tobacco cultivation has been at the same level (around 12,000 acres) since 2005, but is expected to decrease as a result of the announced abolition of tobacco production subsidies. Similarly, Montenegro has been recording a significant reduction in tobacco growing due to the increased share of imported cigarettes and the dominance of new cigarette brands using types of tobacco not grown in Montenegro. In Serbia, tobacco farming has a marginal share in agriculture and tobacco production has been declining since 2000.

³ Cooperation Centre for Scientific Research Relative to Tobacco – Tobacco production in Macedonia, 2016

One of the key characteristics of all countries in the region is that production comes from small family farms. However, over the years the number of farms has been decreasing across the region, with the size of farms showing a slight increase.

Table 2 shows trends in tobacco farming in the period 2010-2017 in seven countries in the SEE region. While major decreases in raw tobacco farming occurred during the period from 2000-2010, which is not presented, Table 2 still reflects the decreasing trend in most countries of the region.

Table 2 Tobacco farming

		2010	2011	2012	2013	2014	2015	2016	2017
Albania	H	n/a	n/a	1,327	1,658	1,482	1,245	1,089	865
	Y	2,700	1,900	2,000	2,800	3,000	22,000	1,800	1,357
B&H	H	1,461	1,456	1,545	1,507	1,547	1,696	1,465	1,496
	Y	1,854	1,835	1,494	1,812	1,739	2,196	2,315	1,760
Croatia	H	4,121	5,908	5,961	5,174	5,198	4,754	4,415	n/a
	Y	8,491	10,643	11,787	9,834	9,164	10,132	8,977	n/a
Kosovo	H	n/a	n/a	n/a	n/a	8	n/a	n/a	n/a
	Y	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Macedonia	H	20,300	19,693	19,656	19,178	17,757	16,128	16,379	14,415
	Y	30,280	26,537	27,333	27,859	27,578	24,237	25,443	22,885
Montenegro	H	125	125	44	49	36	32	34	26
	Y	270	258	106	108	70	52	123	n/a
Serbia	H	4,691	5,139	5,050	4,939	4,899	5,012	5,256	5,069
	Y	8,402	8,192	6,842	7,977	9,341	8,776	7,810	7,173

Note: H stands for harvested area under tobacco (in hectares);

Y stands for total tobacco yield (tons)

* Data on raw tobacco yield for the period after 2012 are estimates obtained by applying chain index of tobacco sales and purchase in respected years, using available official data (time series available from 1992).

Trends in the volume of foreign trade of tobacco in the SEE region depend on the country. While the volume of imports has been increasing in Serbia, Macedonia, and Croatia, in other countries it has been declining. The volume of exports has significantly reduced in Croatia, while in other countries there has been no significant change since 2010 (Table 3).

Table 3 Export and import of tobacco (in tons)

		2010	2011	2012	2013	2014	2015	2016	2017
Albania	I	4,540	3,277	3,688	3,802	3,097	2,548	2,997	3,203
	E	1,077	928	1,127	1,206	1,659	1,288	1,537	290
Bosnia-Herzegovina	I	6,481	6,274	5,762.6	4,563.4	4,341.1	4,193.8	4,393.2	3,919.3
	E	n/a	n/a	729.3	1,139.6	1,052.6	1,415.2	1,520.8	1,092.3
Croatia	I	6,768.2	5,574.1	7,407.6	6,645.2	4,841.4	6,014.9	5,967.2	8,942.2*
	E	17,506.2	10,376.6	11,593.6	11,463.4	11,869.3	10,452.4	12,348.1	11,667.9*
Kosovo	I	3,084.9	3,343.1	3,177.5	3,129.5	2,928.3	2,814.3	2,983.7	2,776.6
	E	32.9	n/a	21.1	26.8	0	0	0	0
Macedonia	I	16,587	21,650	22,538	25,465	23,664	22,549	27,055	16,587*
	E	3,108	2,907	3,836	3,665	1,867	2,717	5,806	3,108*
Montenegro	I	248.2	165.9	260.5	794.8	840.4	982.1	599.9	74.5
	E	24.4	26.4	17.9	31.1	43.7	95.0	211.2	138.4
Serbia	I	10,935.4	8,908.4	9,500.5	8,961.2	7,327.9	12,925.7	22,155.9	24,885.8
	E	6,597.4	5,494.4	8,039.7	6,471.2	6,441.6	5,991.1	6,894.7	7,822

Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

Note: I stands for imports; E stands for exports

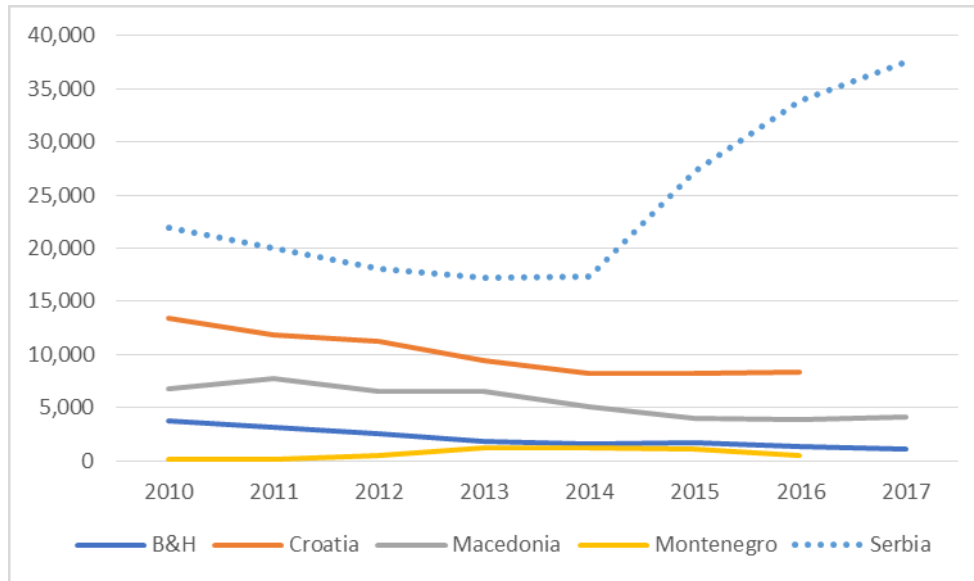
* Available data refer to nine months (January – September 2017)

3.1.2. Manufacturing of tobacco products

A different set of factors shaped the trends in tobacco products manufacturing in the SEE region after 2000. Major domestic tobacco manufacturers were privatized, while international tobacco companies entered the market.

Albania is the only country in the region that does not have a manufacturing industry. In B&H, there is one active factory, and the manufacturing of tobacco products has recorded a significant decrease. Croatia has had a decreasing level of production of tobacco products, despite its largest manufacturing company, Tvornica duhana Rovinj (TDR), being acquired by British American Tobacco (BAT) in 2015. Kosovo has one factory owned by Premium Tobacco Group with no precise data being available on manufacturing volumes. In Macedonia, local companies were also acquired by leading multinationals which resulted in an increase in imports of cigarettes and a reduced level of local manufacturing. Similarly, the industry in Montenegro is undergoing privatization of state-owned companies, resulting in reduced production after 2013. On the other hand, in Serbia the multinational tobacco companies have been dominating the market since 2004 and have been recording a significant increase in manufacturing (Figure 1).

Figure 1 Total Annual Number of Cigarettes Produced (mil sticks)



Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

Note: No registered production in Albania and Kosovo

Large international tobacco companies have significantly expanded their production and sales in the SEE region. Locally-owned manufacturing companies have lost market share after multinationals entered the market and multinational brands replaced the domestic ones. Table 4 presents the major multinational companies in the region by country as manufacturers or importers/wholesalers.

Table 4 Companies present in the market as manufacturers or wholesalers

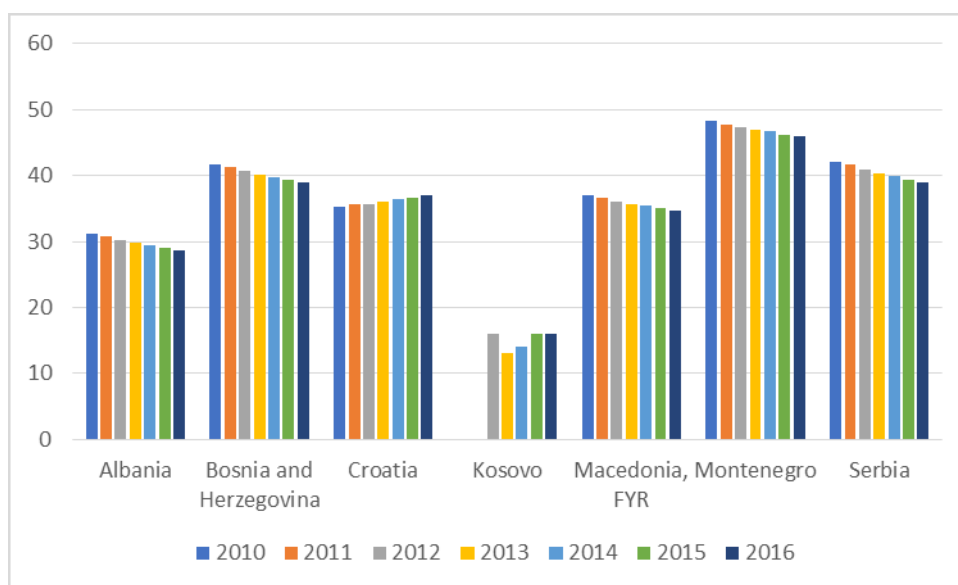
	British American Tobacco (including TDR)	Phillip Morris International	Japan Tobacco International	Imperial Tobacco Group	Local
Albania	X	X			X
B&H	X	X	X	X	X
Croatia	X	X	X	X	
Kosovo	X	X	X		
Macedonia	X	X	X	X	X
Montenegro					X
Serbia	X	X	X	X	X

Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

3.2 Demand for tobacco products

Tobacco consumption including cigarettes, smokeless tobacco, and cigars, varies by country within the SEE region. Smoking prevalence rates in the region vary significantly, ranging from 28.7% in Albania, to 45.9% in Montenegro in 2016.⁴ In all countries in the region (except Kosovo) more than one quarter of the total population are daily smokers. However, a decreasing trend in prevalence is evident in all countries except Croatia⁵ (Figure 2).

Figure 2 Smoking prevalence in the region⁶



Source: World Bank, World Development Indicators (WDI) (<http://databank.worldbank.org/data/reports.aspx?source=2&series=SH.PRVS.MOK>), Accessed: 11/14/2018, for Albania, B&H, Croatia, Montenegro and Serbia. For Macedonia: calculations based on data from Institute for Public Health of Macedonia, WHO estimates and IMEX DATA dooel Skopje estimates. For Kosovo: Kosovo Agency of Statistics, data derived from the Household Budget Survey.

Note: Data provided by the World Bank are age-adjusted

⁴ Except for Kosovo with 16%. However this number is calculated using different methodology

⁵ World Bank data on prevalence in Croatia significantly differs from the Croatian official statistics data; that data records a decrease in prevalence.

⁶ Prevalence of smoking is the percentage of population age 15 and over who currently smoke any tobacco product on a daily or non-daily basis. It excludes smokeless tobacco use.

4. Tobacco taxation and pricing

All seven countries in the SEE region have the sovereign right to determine their tobacco taxation policies according to their geographical and economic structures and national public health and fiscal objectives. Tobacco tax systems can vary depending on circumstances and can come in the form of a single or a mixed excise tax system. In addition, value-added taxes (VAT) and import taxes/duties are imposed as well.

All tobacco products are subject to an excise duty in all countries. According to official data, cigarettes generate over 95% of total tobacco products consumption. Among the seven observed countries, Albania and Kosovo apply only a specific excise, while other countries apply a combined tobacco excise system (Table 5).

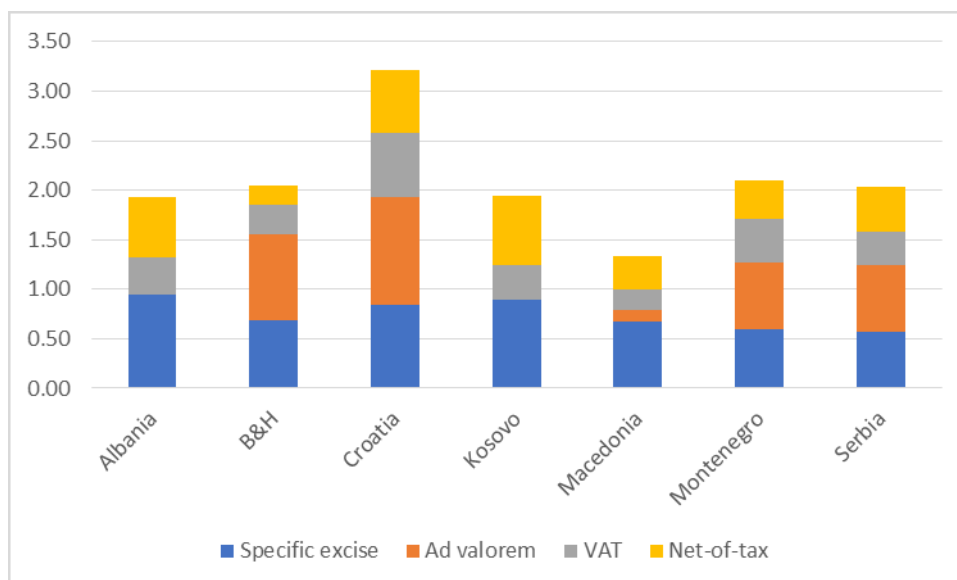
Table 5 Excise tax structure by country, 2017

	Ad valorem (% of retail sales price)	Specific (€ per 1000 sticks)	VAT rate (%)
Albania		46.4	20%
B&H	42%	34.5	17%
Croatia	34%	41.0	25%
Kosovo		45.0	18%
Macedonia	9%	33.5	18%
Montenegro	32%	30.0	19%
Serbia	33%	29.5	20%

Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

In terms of the tax burden per pack, taking into account the rates in Table 6 and the weighted average price per country, in 2017 the specific excise per pack was the highest in Albania (€0.94) and in Kosovo (€0.90); the only excise tax levied in these two countries. They are followed by the other five countries in the region which apply a mixed excise tax system. Of these, Croatia had the largest specific excise per pack (€0.84), followed by B&H (€0.69), Macedonia (€0.67), Montenegro (€0.60), and Serbia (€0.59). The ad valorem tax per pack is again the highest in Croatia (€1.1), followed by B&H (€0.86), and Montenegro and Serbia (€0.67 each). Macedonian cigarette consumers pay the lowest ad valorem tax in the region at €0.12 per pack (Figure 3).

Figure 3 Tax structure of weighted average cigarette price in SEE countries (per pack in €), 2017

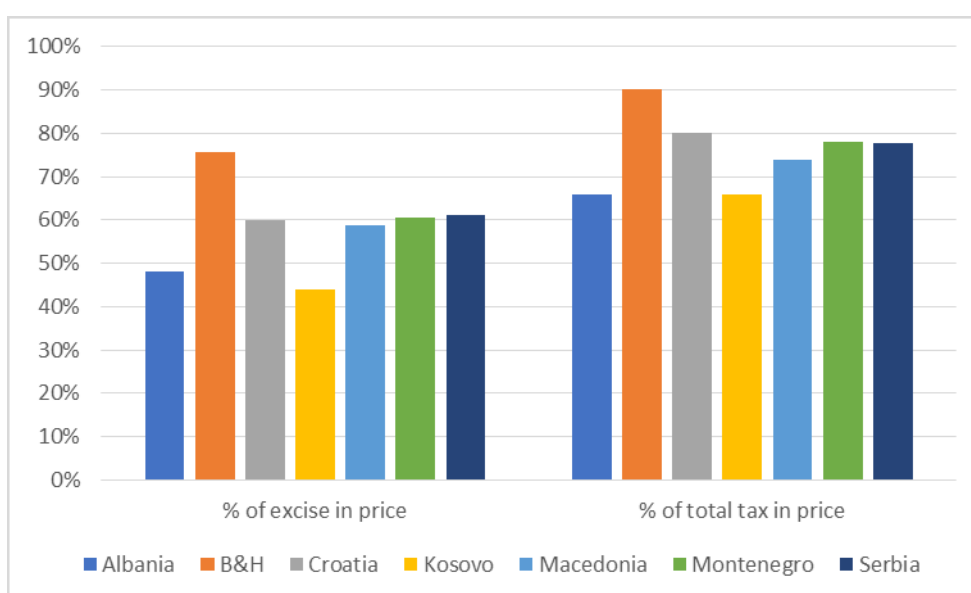


Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

Note: Calculated using the average exchange rate as of November 19, 2018.

The share of excise tax in a weighted average price varies from 44.0% in Kosovo up to 75.7% in B&H, while the share of total tax in weighted average price ranges from 66.0% in Albania and Kosovo to 90.2% in B&H (Figure 4).

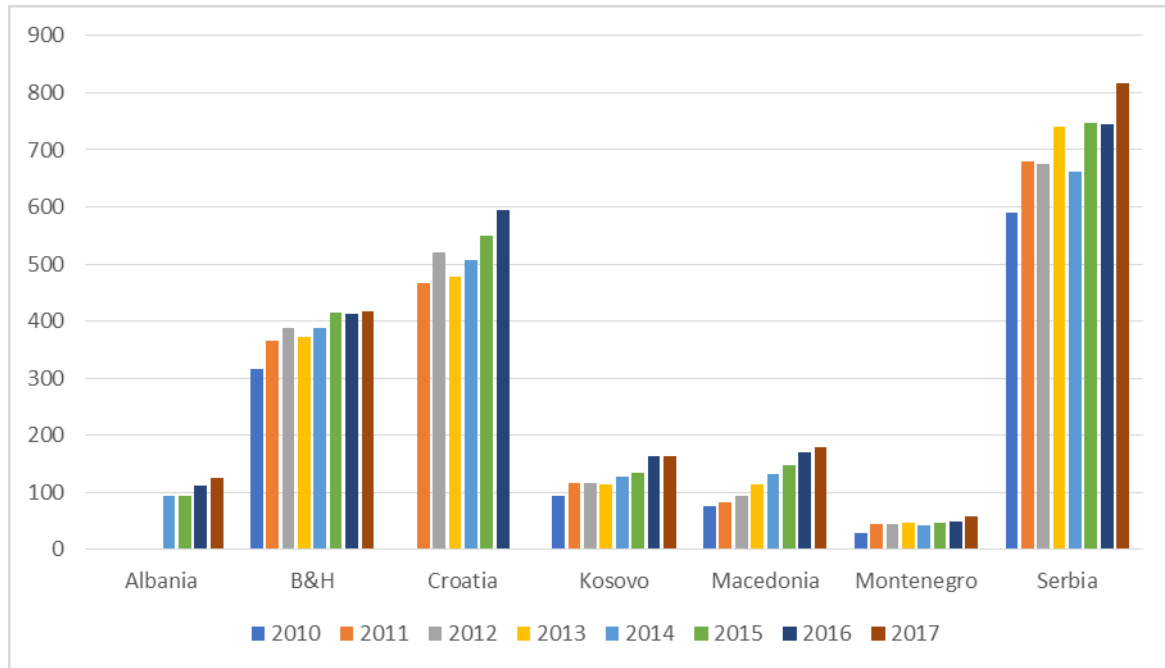
Figure 4 Share of excise and total tax in weighted average price of cigarettes, 2018



Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

Excise tobacco tax revenues have been increasing in nominal terms in all countries. There is a difference in the pace of growth, with Montenegro having the slowest growth, whereas Macedonia has the fastest increasing trend (Figure 5).

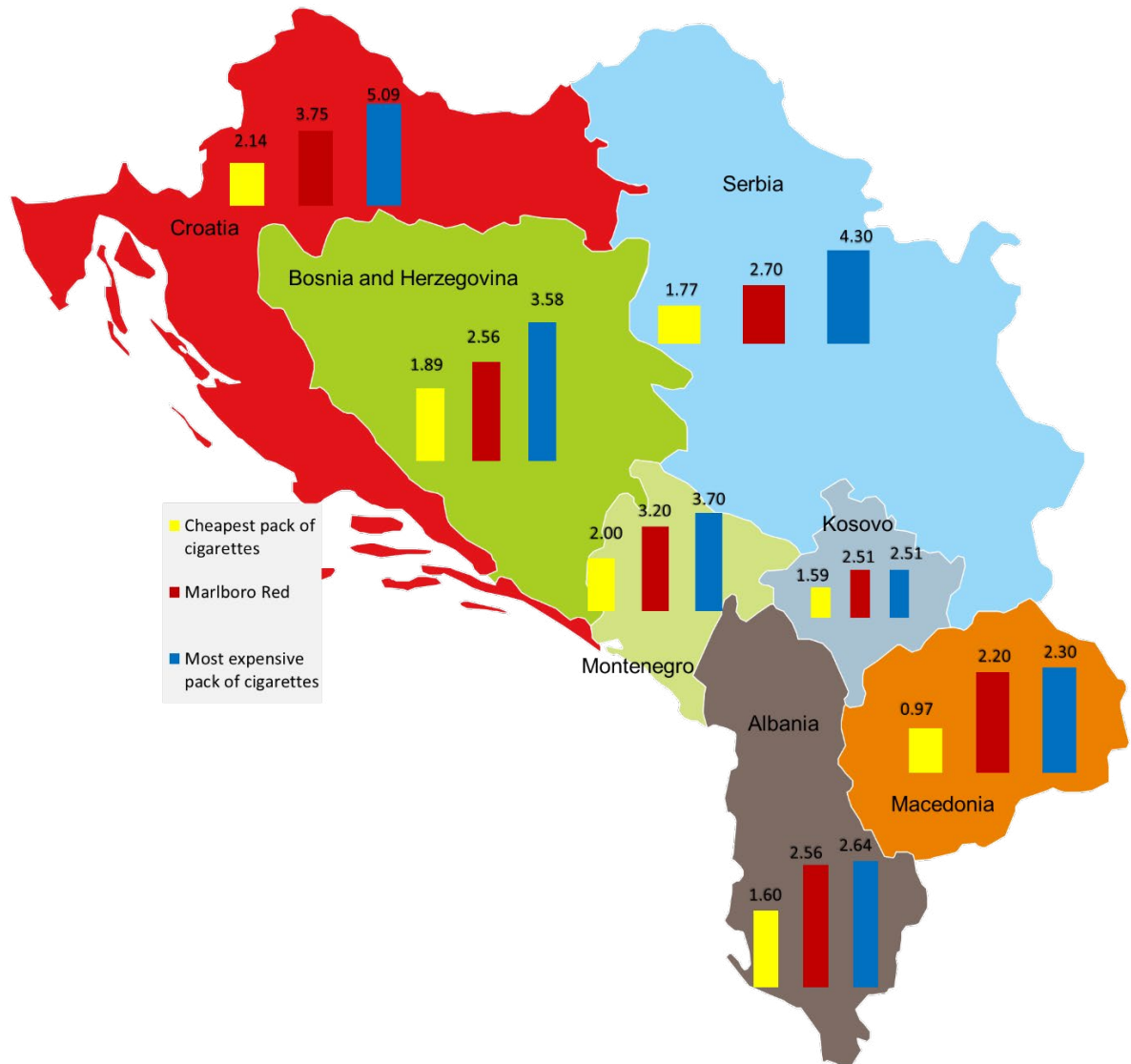
Figure 5 Tobacco excise tax revenues (in € mil.)



Source: Accelerating Progress on Effective Tobacco Tax Policies in Low- and Middle-Income Countries - *National Studies for individual countries*, <http://tobaccotaxation.org/uncategorized/research/>

The price of cigarettes in the region vary significantly. Comparing the retail price of *Marlboro Red* by country, it ranges from €2.2 in Macedonia to €3.75 in Croatia. The cheapest brand of cigarettes in Macedonia is sold at a price of €0.97, while in Croatia smokers must spend €2.14 for a pack of the cheapest cigarette brand (Figure 6).

Figure 6 Prices of the different types of cigarettes in the region



Source: Author's own calculation

5. The elasticity of tobacco products

In order to estimate tobacco price elasticity, we apply two approaches. The first is based on the macro-level time series data, i.e. one measure of price and consumption (and other control variables) per observation period and price elasticity estimated via regression (cointegration) analysis. Comparable time-series estimates are available for the period between 2002 and 2016. An alternative approach is based on the use of micro-level data and has its theoretical foundation in consumer theory. For this estimation we use the HES data for years between 2012 and 2016, and the model proposed by Deaton (1988). In Table 6 we report country-level estimates of price elasticity for both models. As both models contain controls for income (or expenditure as proxy for income), we also report income elasticity for both models.

Table 6 Price and income elasticities of cigarette quantity demanded in SEE¹

Country	Time-series data model		Individual data model ²	
	Price elasticity	Income elasticity	Price elasticity	Income (expenditure) elasticity
Albania	-0.78	0.03	-0.57	0.24
B&H	-0.83	0.25	-0.65	0.50
Croatia	-0.44	-0.92	-1.07	0.91
Kosovo	-0.68	0.17	-0.29	0.24
Macedonia³	-0.47	-0.16	n/a	n/a
Montenegro	-0.68	-1.37	-0.57	0.27
Serbia	-0.76	0.33	-0.45	0.53

Source: <http://tobaccotaxation.org/uncategorized/research/>

¹ Numbers represent % decrease in consumption as a result of 1% increase in price and income, respectively.

² Analysis on the individual (HES) data in Croatia uses data for all households, including tobacco-spenders and non-spenders, while in other countries only the households who reported the positive spending on tobacco were included in the analysis.

³ HES data in Macedonia was not available, so only the analysis using the time-series data was conducted.

Estimated price elasticity for all seven countries using all the models is negative and statistically significant. According to time-series analysis conducted by national teams, price elasticity for cigarettes is estimated in a range between -0.44 in Croatia and -0.83 in B&H. These values correspond to research conducted in other low- and middle-income countries. According to the analysis conducted by the national teams using the HES data, price elasticity for cigarettes is in a range between -0.29 in Kosovo and -1.07 in Croatia. For all countries except Croatia, estimates obtained based on the individual-level data

are slightly lower than the estimates from the aggregate (time-series) data, which is not surprising given only the households who reported positive spending on tobacco were included in their analysis. Negative price elasticities in all seven countries suggest that increasing the price of cigarettes through higher excise taxes would decrease smoking prevalence in all seven countries in the SEE region.

Since both models for the estimation of price elasticity also include a control for income (or total household expenditure, which is a proxy for income in the HES data analysis) it was also possible to estimate the income elasticity of quantity demand. In Albania, B&H, Kosovo, and Serbia, the estimated income elasticities are positive, suggesting that an increase in GDP per capita would result in an increase in tobacco consumption (Table 7). Income elasticity is negative in Croatia, Macedonia, and Montenegro, which can be attributed to increased awareness and appreciation of the health risks of smoking among those in higher income groups. However, in interpreting these results one should keep in mind that the length of time-series was too short to obtain, with confidence, efficient and robust estimates. On the other hand, the estimated expenditure (income) elasticities based on the HES data provided seem to be consistent and more reliable. They range from 0.24 in Albania and Kosovo to 0.91 in Croatia, and suggest that an increase in disposable income, all other things being equal, results in growth of tobacco consumption as tobacco becomes more affordable.

6. Key findings and recommendations

This report covers a total population of 22 million inhabitants with an average GDP of €5,850 per capita. All countries except Croatia (which is an EU member state) are EU candidate countries. Inflation in the region is low, being below 3%. All countries record stable real GDP growth averaging 3%. Average wages are in the range of €360 - €500, except for Croatia with over €1,000. Unemployment levels are on average around 18%.

Across the SEE region, there are similar trends in the overall policy environment, including the strong influence of industry as well as considerable lack of progress in tobacco control. However, some country specificities exist. Albania does not have tobacco product manufacturing. B&H has the highest share of tax in retail prices. Retail prices of cigarettes in Croatia are the highest in the region while Macedonia has the lowest. Montenegro has the highest prevalence rate, and Serbia has the highest level of production and export of cigarettes in the region and could be considered a production hub.

Smoking prevalence is high in all countries except Kosovo but is decreasing over time. Tobacco control policies are applied in all countries, especially bans on advertising, on smoking in public areas, and on sales of tobacco to minors. Tobacco taxation policies in all countries are converging to the EU requirements, except for Croatia where the total excise just slightly exceeds the EU directive of €90 per 1000 cigarettes. Combined excise taxation systems are not present; only Albania and Kosovo apply specific excises. All over the region, tobacco excise revenues are steadily growing. The share of total tax is above 60% in all countries. At the same time, retail prices are significantly different across the region. For comparison, the retail price of Marlboro ranges from €2.2 in Macedonia to €3.75 in Croatia. This results in different amounts of total tax per pack.

Price elasticity estimates for the low- and middle-income countries based on time-series data, range from -0.44 (Croatia) to -0.83 (B&H), and, based on the HES data analysis, range from -0.45 (Serbia) to -0.65 (B&H). Income elasticity estimates based on the HES data, ranging from 0.24 to 0.91, suggest that a significant price increase through higher taxes and regular adjustment in excise rates is necessary to reduce the affordability of tobacco products; that is, to offset the impact of growth in disposable income on tobacco consumption. In Bosnia, Croatia, Kosovo, and Serbia, the absolute values of estimated price and expenditure elasticities are very similar, suggesting that tobacco prices should increase at a higher rate than growth in disposable income to have an impact in reduced consumption.

Regarding the conducted analysis of current trends in the tobacco market, local policy environments, and obtained elasticity estimation, several recommendations could be formulated aimed at improving the current policy approach to tobacco taxation in the SEE region:

First, based on the trends in tobacco consumption and prevalence over the last decade, it could be observed that both have slightly decreased as a result of an increase in taxes, while fiscal revenues have increased. However, the impact of taxes has been, to a certain extent, offset by other demand determinants, primarily powerful marketing of the tobacco industry, as well as increases in income. Global economic crises and fiscal consolidation measures resulted in relatively stable income over the last period. An expected rise in income in the following years might influence

affordability, undermining the results of tax policy reform. Therefore, we recommend a much more significant increase in taxes (and therefore, prices) to reduce affordability and achieve the desired positive effects of lower consumption.

Second, effective tax reform should take into account the potential for downward substitution to cheaper tobacco products which could offset the impact of a tax increase on consumption. This calls for a simplification of the tax system, with a limited number of tax rates and a reduced price difference between the most expensive and cheapest brands.

Third, in addition to tax simplification, increased substitution of cheaper products could come from a potential ability to purchase products across the border, should tobacco taxes be lower and tobacco products be cheaper in neighboring countries. Regional coordination of the national tax authorities and tax harmonization aimed at reducing the difference in prices between countries is required to limit the space for cross-border transactions and the potential for tax evasion and avoidance.

Fourth, newly generated fiscal revenues from higher taxes would open a significant fiscal space for development spending, such as for education, infrastructure, and overall healthcare. Favorable fiscal effects resulting from an inelastic demand for tobacco products, amounting to tens of millions of euros depending on the country observed, represent a unique opportunity for policymakers to conduct structural reforms in different sectors and improve the quality of public services, particularly in the health system.

Fifth, policymakers need to apply an evidence-based approach to designing policy, especially when facing potential traps and obstacles typical of tax/price increase reform processes. This mainly refers to the arguments, largely supported by the industry, that an increase of prices would encourage illicit trade, reduce fiscal revenues, and result in job losses. The evidence from numerous independent research studies conducted worldwide does not support any of these arguments. To the contrary, the evidence shows that an increase in tobacco taxes does not result in an increase in illicit trade or in lower economic activity. In addition, it does not lead to a net job loss as the rise of other economic sectors will more than offset potentially negative labor market effects of reduced tobacco consumption. Moreover, the global research provides strong evidence on the positive impact of increased tobacco taxes on government revenues. Credible fiscal policy should take into account all the potential effects of a policy change, including effects on increased labor productivity, healthcare, development of other economic sectors, etc.

Finally, contrary to the industry argument that higher tobacco taxes would lead to increased illicit trade, the major factors influencing the illicit trade in a country are tobacco industry participation, level of organized crime, corruption, efficiency of tax administration, probability of being caught, and penalty rates. It is therefore crucial to strengthen tax administration in the region and regional cooperation between countries to limit and control illicit tobacco trade. Tobacco taxation reform should be largely considered a regional issue requiring joint strategy, exchange of information, and experience.



tobaccotaxation

Economic Research Informing Tobacco Tax Policy

Authors - This policy brief has been prepared by the research team of the Institute of Economic Sciences: Dr Jovan Zubović, Dr Isidora Ljumović, Mr Olivera Jovanović, Dr Duško Bodroža, Dr Ivana Domazet, Dr Marko Vladislavljević and Dr Mihajlo Đukić.

Acknowledgement - The Institute of Economic Sciences from Belgrade, The Republic of Serbia, is funded by the University of Illinois at Chicago (UIC) to conduct economic research on tobacco taxation in the Republic of Serbia. UIC is one of the core partners of the Bloomberg Philanthropies' Initiative to Reduce Tobacco Use. The views expressed in this document cannot be attributed to, nor do they represent the views of UIC, or Bloomberg Philanthropies.