

NOVEMBER 2024

wiiw HEPA Research Study 3

Tobacco taxation in Eastern Europe:

Landscape study – Serbia

Jovan Zubović, Valentina Vukmirović and Olivera Jovanović



Tobacco taxation in Eastern Europe:

Landscape study – Serbia

JOVAN ZUBOVIĆ

VALENTINA VUKMIROVIĆ

OLIVERA JOVANOVIĆ

Jovan Zubović is Principal Research Fellow at the Institute of Economic Sciences (IES), Belgrade. Valentina Vukmirović and Olivera Jovanović are Research Associates at IES.

This research was funded by the Vienna Institute for International Economic Studies (wiiw), which is a partner of the Bloomberg Philanthropies' Initiative to Reduce Tobacco Use. The views expressed herein do not necessarily reflect the views of wiiw or Bloomberg Philanthropies.

Abstract

This report provides a detailed analysis of the tobacco market in Serbia and updates the findings of the groundbreaking 2018 study by the Institute of Economic Sciences. To address the public health and economic impacts of tobacco use, the report recommends:

1. **Strengthening Enforcement:** Bolster enforcement of existing tobacco control laws, particularly sales restrictions to minors and public smoking bans.
2. **Excise Tax Reform:** Accelerate excise increases to meet EU standards and ensure that tax rates keep pace with rising incomes.
3. **Public Awareness Campaigns:** Launch targeted campaigns to educate the public about the harms of tobacco, including alternative products.
4. **Youth Protection Measures:** Intensify efforts to prevent youth access to all forms of tobacco and nicotine products.
5. **Illicit Trade Reduction:** Enhance border controls, increase penalties for illicit trade, and leverage technology for better market monitoring.

Keywords: Excise, Taxation, Tobacco, Smoking

JEL classification: H23, I12, I18, L66

CONTENTS

Abstract.....	5
Executive summary.....	11
1. Introduction.....	14
2. Serbia's economic outlook.....	16
3. Supply of tobacco products in Serbia.....	19
3.1. Development of tobacco taxation in Serbia	19
3.2. Tobacco growing in Serbia today.....	19
3.3. Overview of the tobacco market	21
3.4. Foreign trade of tobacco products	25
3.5. Employment in the sector	27
4. Demand for tobacco products.....	29
4.1. Prevalence of smoking.....	29
4.2. Tobacco products consumption	33
5. Tobacco control policies	39
5.1. Excise duties on tobacco products	39
5.2. Non-price policy interventions.....	43
6. Estimates of illicit production and trade.....	45
7. Summary and recommendations	47
References	48
Appendix.....	51
Section I.....	51
Section II.....	54

TABLES AND FIGURES

Table 1 / Serbia – Main macroeconomic indicators	17
Table 2 / Average nominal and real net monthly wages in Serbia, 2018-2023.....	18
Table 3 / Sales of tobacco (dried leaf) in Serbia (2018-2022).....	21
Table 4 / Registered entities in the tobacco sector in Serbia, 2018-2023.....	22
Table 5 / Registered tobacco brands by product category in Serbia, 2018-2023	23
Table 6 / Active tobacco brands by product category in Serbia, 2018-2023.....	24
Table 7 / Average net monthly wages and salaries in the manufacture of tobacco products in Serbia, 2018-2022.....	28
Table 8 / Best-selling cigarette brands in Serbia and their retail prices (RP) at the end of the year, 2018-2023.....	34
Table 9 / Legal sales of tobacco products, 2018-2023	36
Table 10 / Chewing tobacco sales in Serbia, 2018-2023.....	37
Table 11 / Pipe tobacco sales in Serbia, 2018-2023.....	37
Table 12 / Cigars sales in Serbia, 2018-2023	37
Table 13 / Cigarillos sales in Serbia, 2018-2023.....	38
Table 14 / Specific excise tax amount in Serbia, 2018-2025	40
Table 15 / Sample calculation for a pack of L&M Loft XL (Blue), 2024.....	41
Table 16 / Identified areas of illegal tobacco plantations (ha), 2018-2023.....	45
Table 17 / Confiscated illegal tobacco products, 2018-2023 (million sticks).....	46
Figure 1 / Tobacco cultivation in Serbia.....	20
Figure 2 / Number of tobacco leaf producers.....	21
Figure 3 / The average purchase price of tobacco leaf per kg in EUR (nominal prices).....	22
Figure 4 / The total annual number of cigarettes produced (sticks m).....	25
Figure 5 / Foreign trade in tobacco sector in Serbia, 2018-2022	26
Figure 6 / Foreign trade of cigarettes in Serbia, 2006-2023.....	26
Figure 7 / Foreign trade of cigars and cigarillos in Serbia, 2006-2023.....	27
Figure 8 / Foreign trade of smoking tobacco in Serbia, 2006-2023	27
Figure 9 / Registered employment in the tobacco industry in Serbia, 2000-2022.....	28
Figure 10 / Smoking prevalence trends among people aged 15 years and older in Serbia, 2000-2025 (%)	29
Figure 11 / Smoking prevalence among individuals aged 18-64 in Serbia (%).....	30
Figure 12 / Share of adults aged 18-64 in Serbia who have tried e-cigarettes (%).....	30
Figure 13 / The percent of adults aged 18-64 in Serbia who have smoked hookah at least once (%)....	31
Figure 14 / Tobacco and nicotine product use prevalence among youth (%).....	32
Figure 15 / Cigarette sales in Serbia, 2013-2023 (packs m).....	33
Figure 16 / Cigarette sales in Serbia, 2018-2023, packs and value (in RSD).....	34
Figure 17 / RYO tobacco sales in Serbia, 2018-2023.....	35
Figure 18 / Heated tobacco products sales in Serbia, 2018-2023	36
Figure 19 / Affordability of cigarettes in Serbia, 2012-2022	39
Figure 20 / Excise duty paid on liquids for filling electronic cigarettes produced in the country and upon import into Serbia, 2018-2023.....	42
Figure 21 / Tobacco excise revenues to Serbia's national budget (RSD bn).....	42

Annex Table A / Best-selling hand-rolled (RYO) tobacco brands in Serbia, 2018-2023	51
Annex Table B / Best-selling brands of heated tobacco products (HTPs) in Serbia, 2018-2023	51
Annex Table C / Best-selling brands of chewing tobacco in Serbia and their retail prices, 2018-2023....	52
Annex Table D / Best-selling pipe tobacco brands in Serbia and their retail prices, 2018-2023	52
Annex Table E / Best-selling cigar brands in Serbia and their retail prices, 2018-2023	53
Annex Table F / Best-selling cigarillo brands in Serbia and their retail prices, 2018-2023.....	53
Photo 1 / A photo of an MC smoker's last-purchased pack.....	54
Photo 2 / Photo of a respondent's last-purchased package of RYO tobacco.....	54

Executive summary

This report provides a detailed analysis of the tobacco market in Serbia and updates the findings of the groundbreaking 2018 study by the Institute of Economic Sciences (IES, Zubović et al. 2018). Tobacco consumption in Serbia poses a major challenge to public health and the economy. Approximately 19,800 annual deaths are attributed to tobacco-related diseases, accounting for 20% of all deaths in the country. This drastic figure, combined with an economic burden equivalent to 4.9% of Serbia's GDP (EUR 2.3 billion annually), highlights the urgency of comprehensive policy interventions. Adopting seven key tobacco control measures in Serbia could prevent 72,600 deaths and avert EUR 5.5 billion in health-related costs and economic losses by 2035, bringing the country in line with global standards, such as the Framework Convention on Tobacco Control (FCTC) of the World Health Organization (WHO).

Economic context and tobacco supply

The Serbian economy is characterised by steady growth and significant foreign investment, with the manufacturing and export sectors playing an important role. The tobacco sector continues to make an important contribution to the Serbian economy. Cigarette production has stabilised at 35 billion sticks per year. Most of these products are exported, reflecting the dominance of multinationals, such as Philip Morris International (PMI) and Japan Tobacco International (JTI). However, the sector's contribution to employment is minimal, accounting for only 0.06% of total employment. Advances in automation and the high efficiency of production facilities have reduced demand for labour.

Serbia remains a significant exporter of tobacco products, with the export value increasing from EUR 236.5 million in 2018 to EUR 429.3 million in 2022. Imports of certain tobacco products have increased, driven by consumer demand for high-quality and novelty tobacco products, including heated tobacco products (HTPs) and cigars.

Tobacco cultivation in Serbia has declined, partly due to the abolition of subsidies to align with EU standards. From 2013 to 2023, the number of tobacco farmers fell from 1,782 to 704.

Demand and consumption trends

Serbia has one of the highest prevalence rates in Europe, with 37% of adults smoking regularly. While cigarette consumption has declined over the last decade, alternative tobacco products have become increasingly popular. HTPs and electronic cigarettes now account for 5.56% and 4.01% of the market, respectively. Younger people, particularly those aged 18-24, are driving demand for these alternative products. The consumption of water pipes is also noteworthy, as almost 11% of adults have tried them at least once.

Sales of cigarettes declined from 655 million packs in 2018 to 597 million packs in 2023, but the total sales value increased due to price increases from higher excise taxes. The sales of hand-rolled tobacco – also known as 'roll-your-own' (RYO) tobacco – have increased significantly in both the legal and illegal

markets. The legal share of RYO tobacco is now at 5%, while the illegal share is over 90%, leading to enforcement challenges.

Illicit trade and market dynamics

Illicit trade is still a problem, especially in hand-rolled tobacco. Despite efforts to curb the illicit cigarette market, the flourishing illicit trade in RYO tobacco has shifted market dynamics. This undermines public health objectives and affects government excise revenues. The robust demand for alternative products (e.g. HTPs) reflects changing consumer preferences and increased marketing by multinational corporations. Heated tobacco now accounts for a growing share of the legal market due to perceptions of reduced harmfulness and aggressive marketing campaigns.

Tobacco control policies and legislative updates

Serbian excise tax policy has undergone gradual adjustments to make cigarettes less affordable. Excise tax rates have increased from EUR 0.57 per pack in 2018 to EUR 0.85 per pack in 2024. However, the total excise tax burden of EUR 93.25 per 1,000 cigarettes remains below the EU average, so further alignment is needed. Recent reforms include the introduction of an e-excise system to improve tracking and tracing and reduce illicit trade. Excise stamps with QR codes, which enable better traceability, will be mandatory from 2025.

Non-price measures include restrictions on smoking in public places, although enforcement remains inadequate. A proposed complete ban on smoking in public places, including restaurants and cafés, has yet to be approved by policy makers. Youth access to tobacco remains a major problem. Studies have shown that over 80% of minors who tried to buy cigarettes were not refused despite legal bans.

Economic contributions and challenges

Excise tax revenue from tobacco products reached EUR 1.08 billion in 2023, reflecting steady growth since 2005. Tobacco tax is an important fiscal instrument, but affordability remains a problem. Serbia scores poorly on the Tobacconomics Cigarette Tax Scorecard, with a rating of 2.5 out of 5, which is down from 3.63 in 2020. Affordability metrics show that rising incomes are outpacing excise tax increases, necessitating stronger tax policy measures.

Alternative tobacco products, including HTPs and nicotine pouches, are increasingly taxed. The excise tax on heated tobacco is set to match the excise tax rates on cigarettes by 2025. Nicotine pouches have been included in the excise duty system since 2024, reflecting the increasing regulatory focus on novel products.

Recommendations for policy improvements

To address the public health and economic impacts of tobacco use, the report recommends:

1. **Strengthening Enforcement:** Bolster enforcement of existing tobacco control laws, particularly sales restrictions to minors and public smoking bans.
2. **Excise Tax Reform:** Accelerate excise increases to meet EU standards and ensure that tax rates keep pace with rising incomes.

3. **Public Awareness Campaigns:** Launch targeted campaigns to educate the public about the harms of tobacco, including alternative products.
4. **Youth Protection Measures:** Intensify efforts to prevent youth access to all forms of tobacco and nicotine products.
5. **Illicit Trade Reduction:** Enhance border controls, increase penalties for illicit trade, and leverage technology for better market monitoring.

1. Introduction

The first national study on the economics of tobacco and tobacco taxation in Serbia, published by the Institute of Economic Sciences (IES) in 2018 (Zubović et al. 2018), was an important contribution to a better understanding of tobacco economics in Serbia. As the first comprehensive study of its kind in Serbia, it provided an in-depth analysis of the supply and demand dynamics of tobacco products, examined tobacco taxation and pricing policies, and investigated the price elasticity of tobacco products. The study provided important insights that significantly improved the understanding of the economics of tobacco control in Serbia and serves as an important resource for researchers, policy makers and various stakeholders involved in tobacco regulation.

The impact of tobacco use in Serbia is both alarming and significant. According to recent estimates, around 19,800 people die each year from tobacco-related diseases, accounting for almost 20% of all deaths in the country – more than double the global average. This staggering mortality rate underscores the severe public health crisis that tobacco consumption represents. In addition, the economic burden of tobacco-related diseases was significant in 2021, as it cost Serbia 269 billion Serbian dinars (RSD; EUR 2.3 billion) annually, equivalent to 4.9% of the country's GDP (UNDP 2024). These figures highlight the need for a comprehensive study of the scale and complexity of the impact of tobacco consumption. Raising awareness of these statistics is crucial to promoting a deeper understanding of the issue and encouraging policy makers to adopt evidence-based strategies that are in line with global tobacco control frameworks, such as the Framework Convention on Tobacco Control (FCTC) or the World Health Organization (WHO). By implementing seven key tobacco control measures, Serbia could prevent at least 72,600 deaths and avert RSD 642 billion (EUR 5.5 billion) in health-related costs and economic losses by 2035. This proactive approach is essential to protect public health and reduce the economic burden of tobacco use (ibid.).

Building on the foundation of the 2018 report, this study provides an updated and comprehensive analysis of the tobacco market in Serbia in 2024, reflecting the significant developments that have occurred since 2018, including changes in the tobacco market landscape, legislative changes and adjustments in excise tax policies. The analysis covers the evolving patterns in the demand and supply of tobacco products and provides a nuanced understanding of how these dynamics have changed over time. In addition to these recent developments, the study also considers longer-term trends, providing valuable context for understanding patterns that predate 2018. Most importantly, cigarette manufacturing remains at a high level, at around 35 billion sticks annually. At the same time, export markets are the main destination for sales of these products. Due to inflation and income growth, which is higher than price growth, the prevalence rate reversed in Serbia beginning in 2020 after 20 years of constant decline. Law enforcement is questionable, especially regarding sales to minors. The presence of the illicit trade in hand-rolled tobacco – also known as 'roll-your-own' (RYO) tobacco – diminished the efforts of policy makers to reduce the share of illicit cigarettes to 2%, as RYO illicit share exceeds 90%. This led to a change in the market structure, as the sale of RYO tobacco increased significantly. The legal market share of RYO tobacco reached 5%, while the illegal share is over 10%. At the same time, the share of heated tobacco products (HTPs) reached 5% of the total tobacco market.

An important feature of this updated study is the examination of RYO tobacco as well as alternative tobacco and nicotine products, some of which are new to the Serbian market. This emergence is leading to changes in legislation and makes the study's findings on the evolving tobacco landscape particularly valuable. By presenting these updates and new data, this study aims to provide stakeholders with an up-to-date and comprehensive overview of the tobacco market and its regulatory environment, enabling a deeper understanding of the dynamics at play in ongoing tobacco control efforts.

The report begins with a macroeconomic outlook in Serbia, which provides a concise overview of the country's economic environment. It then examines the supply of tobacco products in Serbia, presenting data on tobacco cultivation, tobacco product manufacturing, foreign trade and employment in the sector. The subsequent sections analyse the demand for tobacco products in Serbia, including the prevalence of smoking and tobacco consumption patterns. The report also looks at excise taxes on tobacco products and legislative updates, detailing the current tax structure and recent changes to tobacco-related legislation. Finally, the report examines illicit production and trade in Serbia and provides estimates and insights into the scale and impact of illicit tobacco activity.

2. Serbia's economic outlook

Serbia's recent history is characterised by a series of comprehensive economic reforms aimed at aligning the country's structural and institutional framework with international standards, reflecting the country's aspirations for accession to the European Union (EU). These reforms have improved the country's macroeconomic situation by helping to increase real GDP, exports, imports and inflows of foreign direct investment (FDI) while reducing unemployment.

The World Bank classifies Serbia as a middle-income economy. The country's economy relies heavily on manufacturing and exports, which are supported by foreign investment. Since 2007, Serbia has attracted more than EUR 46 billion in FDI and, in 2020, it was the world's leading country in terms of the number of jobs created by FDI per million inhabitants (RAS 2024). Looking at all countries within the Southeast Europe (SEE) region, Serbia was the largest recipient of FDI in 2022, with inflows of USD 4.65 billion (UNCTAD 2023). The largest foreign investor in Serbia, in terms of both number and value of projects, was Germany, while the five most attractive sectors in terms of number of projects were the automotive sector (17.0%); agriculture, food and beverages (15.2%); textiles and clothing (7.5%); electrical and electronics (6.2%); and construction (5.0%) (RAS 2024).

According to Eurostat data, Serbia ranks 26th out of 39 countries in terms of GDP in 2023, outperforming other countries in the Western Balkans. The Serbian economy is forecast to grow by 3.6% in 2024, followed by constant annual growth of between 4% and 5% in 2025 and 2026, in line with the new investment cycle. This development will be promoted by an increase in consumption and investment as well as continued strong export performance. In addition, FDI is expected to remain an important source of financing (National Bank of Serbia 2024a).

Table 1 shows the country's key macroeconomic indicators for the 2018-2023 period and provides an overview of GDP growth and the development of inflation and employment.

In terms of real GDP growth, Serbia recorded steady expansion in 2018 and 2019, with growth rates of 4.5% and 4.3%, respectively, indicating healthy economic performance. However, the outbreak of the global COVID-19 pandemic in 2020 brought significant challenges and led to a decline of 0.9% as the economy struggled with disruptions in production and trade. Despite these challenges, Serbia proved resilient in 2021 and recorded real GDP growth of 7.7%, indicating a robust recovery. However, this momentum weakened in the following years before stabilising at 2.5% in 2022 and 2023, indicating a consolidation phase after the rapid recovery phase.

According to data from the Statistical Office of the Republic of Serbia for 2023, Serbia's GDP reached EUR 71.2 billion at current prices. This corresponds to a remarkable increase of 18.2% in nominal terms and 3.8% in real terms compared to the previous year. In 2023, manufacturing accounted for 13.3% of Serbia's GDP creation, followed by the wholesale and retail trade (including repair of motor vehicles), with 10.4%, and the IT sector, with 8.2%.

Table 1 / Serbia – Main macroeconomic indicators

Indicator	2018	2019	2020	2021	2022	2023
Population (estimates)	6,982,604	6,945,235	6,899,126	6,834,326	6,664,449	6,623,183
GDP (total, EUR m)	42,892.2	45,970.4	46,815.3	53,345.3	60,426.5	69,513.0
GDP per capita (EUR)	6,143	6,619	6,786	7,806	9,067	10,497
Real GDP growth rate (%)	4.5	4.3	-0.9	7.7	2.5	2.5
Inflation rate	2.0	1.9	1.8	4.0	11.7	12.1
Unemployment rate (Population aged 15+, %)	12.7	10.4	9.7	11.0	9.5	9.4
Average monthly salaries and wages, net (EUR)*	419.8	466.1	510.9	560.2	637.9	733.5
Employment (Population aged 15+, thousand)	2,832.9	2,901.0	2,776.7	2,848.8	2,818.5	2,842.0

Sources: Eurostat (2024); Statistical Office of the Republic of Serbia (2023)

*Authors' calculation based on the RSD amounts and the exchange rate of RSD against the EUR (average over the period)

Inflationary pressures proved remarkably worrying during this period, as consumer prices were subject to volatility. While inflation remained relatively stable in the period before the current crisis and was around 2% in the 2018-2020 period, increases to 11.7% and 12.1% were observed in 2022 and 2023, respectively. Inflation has been falling since April 2023 and has slowed by a further 3.8 percentage points (pp) since the beginning of 2024.

Serbia's exports and imports grew in the 2018-2023 period. Exports started at EUR 21,166 million in 2018 and rose steadily to EUR 41,009 million by 2023. Similarly, imports increased from EUR 25,257 million in 2018 to EUR 44,596 million in 2023. Growth rates fluctuated from year to year but remained positive overall. Compared to the previous year, there were notable growth spurts in both exports (31.9%) and imports (34.7%) in 2022. Despite occasional declines (e.g. the 4.6% fall in export growth and 5.7% fall in import growth in 2020 compared to the previous year), the general trend points to growing trade activity. However, the trade balance remained a persistent challenge, as imports were consistently higher than exports.

In terms of labour market dynamics, Serbia recorded a gradual decline in the unemployment rate in the population aged 15 years and older, from 12.7% in 2018 to 9.4% in 2023. For the January-April 2024 period, real year-on-year growth in net wages was 9.0%. The average monthly wage amounted to RSD 95,873 (EUR 818), with the average wage in the public sector being RSD 100,039 (EUR 854), which is higher than in the private sector (RSD 94,192/EUR 804). In the observed period, the average nominal net wage increased by 15.0% year-on-year, with similar growth in both sectors (National Bank of Serbia 2024).

In terms of labour market dynamics, Serbia recorded a gradual decline in the unemployment rate among the population aged 15 and older, from 12.7% in 2018 to 9.4% in 2023. For the January-April 2024 period, real year-on-year growth in net wages amounted to 9.0%. The average wage amounted to RSD 95,873 (EUR 818), with the average wage in the public sector higher (RSD 100,039/EUR 854) than in the private sector (RSD 94,192/EUR 804). In the period under review, the average nominal net wage increased by 15.0% compared to the previous year, with growth being similar in both sectors. Furthermore, the average net wage increased from EUR 419.8 in 2018 to EUR 733.5 in 2023, indicating

an upward trend in income levels over the observed period. Table 2 shows nominal and real wages over the observed period.

Table 2 / Average nominal and real net monthly wages in Serbia, 2018-2023

Year	Average nominal net wage in Serbia (in RSD)	Average net wage in Serbia adjusted for inflation (in 2023 RSD prices)
2018	49,650	65,544
2019	54,919	71,055
2020	60,073	76,166
2021	65,864	82,558
2022	74,933	86,753
2023	86,007	86,007

Source: Statistical Office of the Republic of Serbia (2024); authors' calculation

According to the National Bank of Serbia (2024b), FDI inflows to Serbia amounted to EUR 4,522 million in 2023, which corresponds to growth of 2.0% compared to 2022.

The latest available data by country, referring to the first three quarters of 2023, shows that the largest inflow of FDI to Serbia was recorded from European (68.1%) and Asian countries (30.2%). In terms of specific countries, the largest volumes of FDI in Serbia in the first three quarters of 2023 came from China (EUR 818.4 million), the Netherlands (EUR 622.5 million), the United Kingdom (EUR 217.4 million), Austria (EUR 215.9 million) and Germany (EUR 158.6 million). The largest share of investment flows into the tradable sectors (59.8%), especially manufacturing (29.0%), mining (11.2%), and professional and technical activities (9.3%).

3. Supply of tobacco products in Serbia

This section examines the main factors influencing the supply side of tobacco products, including an analysis of supply-side actors (e.g. tobacco farmers and manufacturers). It also examines topics like leaf tobacco production, industry trends in tobacco product manufacturing, export and import activities, and employment in the tobacco-growing and -manufacturing sectors. Overall, tobacco cultivation has continued to decline and now only accounts for a small proportion of agriculture. Tobacco production increased until 2015 and remained at the level of 35 billion sticks, which is mainly due to growing exports. However, this was not accompanied by an increase in employment in this sector.

3.1. DEVELOPMENT OF TOBACCO TAXATION IN SERBIA

Tobacco probably arrived in Serbia during the period of Ottoman rule, and it had spread to all provinces by 1611. The authorities soon tried to curb tobacco consumption through strict prohibitions and even imposed death penalties. As these efforts proved ineffective, the state changed its approach in the mid-17th century and decided to tax tobacco (Mijatović 2006), introducing the state monopoly.

Tobacco production expanded under the state monopoly, with profits making up a considerable part of the Serbian budget: the share was 7.0% in 1888, 13.3% in 1896, and 16.0% in 1900. Production was first expanded in the Vranje region, and later, at the turn of the 20th century, production also increased in the Niš region (ibid.). The tobacco industry in both regions was state-owned until 2003, when British American Tobacco (BAT) 'Duvanska Industrija' Vranje and Phillip Morris International (PMI) took over the largest tobacco factory in Serbia, 'Fabrika duvana' a.d. Niš.

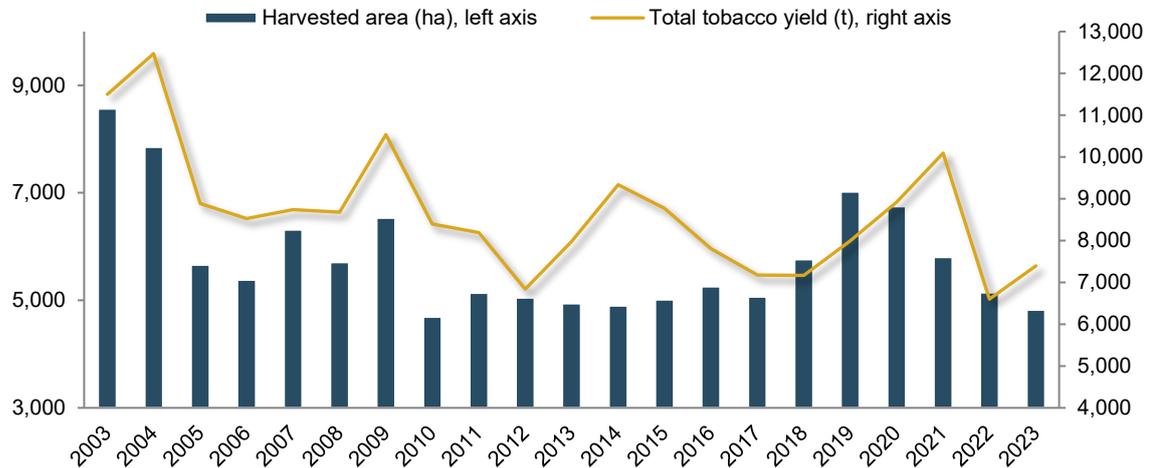
3.2. TOBACCO GROWING IN SERBIA TODAY

Today, tobacco cultivation accounts for only a small part of Serbia's agricultural production. Nevertheless, the country is still one of the 50 largest tobacco growers in the world and, according to FAOSTAT, ranks 42nd in 2021. The three most important tobacco producing countries in terms of acreage – measured in hectares (ha) – are China (1,014,553 ha), India (431,146 ha) and Brazil (357,230 ha). In the European region, Turkey has the largest tobacco-growing area, with 83,166 ha, followed by North Macedonia, with 16,617 ha (WHO 2023). In the EU, Italy, Spain, Poland, Greece, Croatia, France, Hungary and Bulgaria dominate tobacco production, collectively accounting for 99% of total production. However, the area under tobacco cultivation is shrinking, mainly due to the declining demand for tobacco products (European Commission n.d.).

As can be seen in Figure 1, the area under tobacco cultivation declined steadily and significantly between 2003 and 2006. Beginning in 2006, tobacco cultivation in Serbia remained at a stable level of just over 5,300 ha per year on average. Although there was a notable increase in 2019, when the harvested area reached 7,023 ha, it has steadily declined since then, with the cultivated area falling to 4,825 ha by 2023. In contrast, the total yield showed less volatility over the observed period. After steady growth, which peaked in 2021 at 10,097 tonnes (t), there was a significant decline in recent years, to

6,601 t in 2022, followed by a modest improvement in 2023, when the yield reached 7,397 t. The highest yields were recorded in 2004 (12,474 t), while the average for the 2003-2023 period was 8,668 t.

Figure 1 / Tobacco cultivation in Serbia

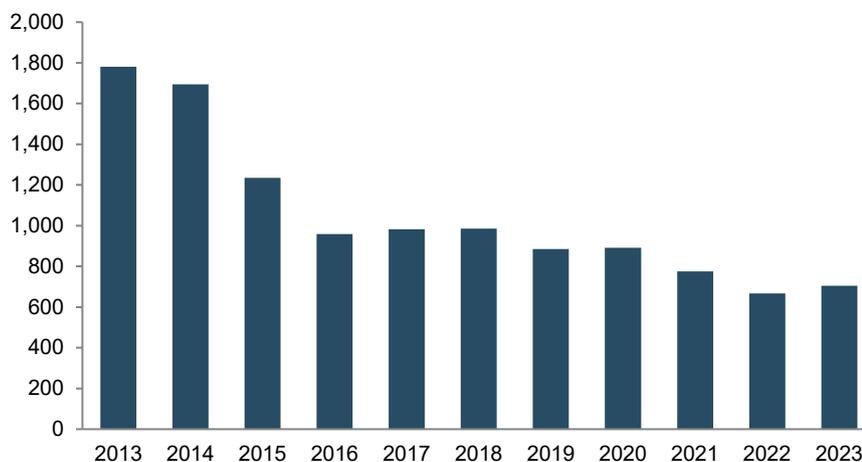


Source: Statistical Office of the Republic of Serbia (2024)

From 2013 to 2023, there was a clear downward trend in the number of tobacco farmers in Serbia, with their ranks decreasing from 1,782 to 704 (Figure 2). Given the fact that the area under cultivation has remained relatively stable, the sharp decline in the number of tobacco farmers (of which about a third are still active) indicates a consolidation of production, which is dominated by nine large tobacco growers.

The decline in tobacco cultivation in Serbia is due to the change in agricultural policy measures, in particular the abolition of subsidies for tobacco producers. The Ministry of Agriculture has discontinued subsidies for tobacco cultivation in line with European regulations, especially since the tobacco industry in Serbia is foreign-owned, making state support for tobacco cultivation economically (and socially) unjustifiable. Subsidies per hectare have not been completely abolished, as tobacco continues to be treated like other crop products. In 2024, subsidies for crop production amounted to RSD 18,000 (EUR 153.6) per hectare.

In some of Serbia's neighbouring countries, tobacco cultivation continues to receive significant government support in the form of subsidies. For example, between 2008 and 2019, North Macedonia allocated around a quarter of its total agricultural subsidies and 40% of its crop-specific subsidies to tobacco cultivation. This amounted to EUR 241 million in subsidies for tobacco cultivation (over EUR 14,000 per hectare), which remains vital for the roughly 20,000 agricultural households whose main source of income is tobacco cultivation (Hristovska Mijovic et al. 2022). Although Romania is an EU member, it also subsidises tobacco growing. In 2022, the country granted a temporary national subsidy of 2,584.54 EUR/ha, the highest subsidy per hectare in Romania (Nerău et al. 2023).

Figure 2 / Number of tobacco leaf producers

Source: Serbian Tobacco Administration (2024)

Table 3 provides insight into the sales value and volumes of tobacco (dried leaves) in Serbia from 2018 to 2022. Despite fluctuations in the volumes of traded tobacco, the overall value has remained relatively stable, especially from 2020 to 2022. From 2020 onwards, the value of sales increased, although volumes remained below 2018 levels, indicating higher prices per tonne, which could be due to inflationary pressures.

Table 3 / Sales of tobacco (dried leaf) in Serbia (2018-2022)

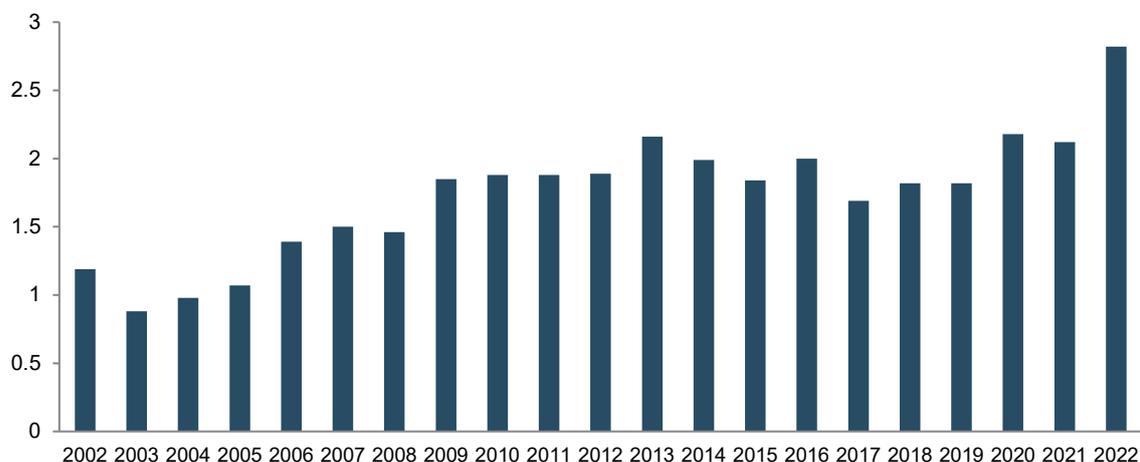
Year	Value (EUR)	Quantities (t)
2018	13,004,143	7,424
2019*	6,321,595	6,957
2020	15,155,638	6,856
2021	15,956,451	7,289
2022	15,962,880	5,475

Note: *Data not verified due to the COVID-19 outbreak

Sources: Statistical Office of the Republic of Serbia (2023); Serbian Tobacco Administration (2024)

3.3. OVERVIEW OF THE TOBACCO MARKET

Table 4 shows the data on registered companies in the Serbian tobacco sector for the 2018-2023 period. The data come from the official registers of the Serbian Tobacco Administration (2024), which was established in 2005 by the Tobacco Act as an institution of the Ministry of Finance and continues the work of the Tobacco Agency, which was founded in 2003. During the reporting period, the number of registered wholesalers and importers increased significantly, and the number of registered exporters and retailers fell slightly. Figure 3 shows a steady long term increase in the average purchase price of tobacco leaf per kilogram in Serbia, with particularly sharp growth after 2020.

Figure 3 / The average purchase price of tobacco leaf per kg in EUR (nominal prices)

Source: Serbian Tobacco Administration (2024)

Table 4 / Registered entities in the tobacco sector in Serbia, 2018-2023

Registered entities	2018	2019	2020	2021	2022	2023
Tobacco producers	8	8	8	8	8	9
Tobacco processors	8	4	4	4	4	4
Tobacco refiners	/	/	3	3	4	5
Manufacturers of tobacco products	4	4	4	4	4	4
Wholesalers of tobacco products	10	11	11	11	13	15
Importers of tobacco products	14	15	16	20	20	20
Exporters of tobacco products	21	23	21	21	20	19
Retailers of tobacco products	20,517	20,509	19,593	19,578	19,333	19,537
Manufacturers of related products	/	/	/	/	/	3
Importers of related products	/	/	/	/	/	20

Source: Serbian Tobacco Administration (2024)

In Serbia, tobacco growers are companies that cultivate different types of tobacco (Virginia, Burley, oriental and semi-oriental). According to the Tobacco Act, tobacco production includes the production of tobacco seedlings, cultivation of tobacco in the field, harvesting, drying, sorting and packaging of tobacco by the tobacco producer. In Serbia, tobacco producers are registered as natural and legal persons. Compared to the data presented in the first national study for 2017, when eight tobacco producers were registered as legal entities and 984 as natural persons, the figures for 2023 show that the number of legal entities increased to nine, while the number of natural persons decreased to 704.

The activities of tobacco processors include shredding, fermenting and performing other technical steps in the processing and packaging of tobacco. Tobacco production and processing activities in Serbia are closely intertwined, as half of the producer companies are also active in tobacco processing. Compared to the data presented in the previous study on the tobacco landscape in Serbia (Zubović et al. 2018), the number of registered tobacco processors in 2018 was eight. However, recent data show a significant decrease in the number of registered tobacco processors, which was four in 2023. The decrease in the number of registered tobacco processors in Serbia is likely due to the consolidation of production and

processing activities into fewer companies, as half of the manufacturing companies are also active in processing.

The activities of tobacco refineries include the industrial processing of processed tobacco used exclusively as a raw material for the manufacture of tobacco products, including reconstituted tobacco (homogenised tobacco or tobacco leaf) and expanded tobacco. Records for registered tobacco processors, which only started being kept in 2020, show a modest but steady increase over the following four years. In 2023, the number of tobacco processors was five.

Tobacco product manufacturing is an industrial process that involves the preparation, production and packaging of products made wholly or partly from tobacco. These include cigarettes, cigars, cigarillos, smoking tobacco and other tobacco products (e.g. chewing tobacco, nasal tobacco (known as 'burmut' in Serbian), heated tobacco products and tobacco for oral use). Over the years, the number of registered manufacturers of tobacco products has remained constant, at four, comprising PMI Niš, BAT Vranje, Monus and JTI Senta.

In Serbia, the exclusive right to trade in tobacco products is granted to wholesalers. Between 2017 and 2023, the number of tobacco wholesalers increased from 10 to 15, likely due to increasing market demand and the diversification of product supply. In 2023, the number of registered retailers in Serbia amounted to 19,537, about 1,000 fewer than in 2018.

The increase in the number of registered importers of tobacco, processed tobacco and/or tobacco products (from 14 in 2018 to 20 in 2023) probably reflects the market's response to the growing demand for novel tobacco products and the expansion of product categories. Conversely, the slight decrease in the number of registered exporters (from 21 in 2018 to 19 in 2023) could indicate a decline in export activity.

In 2023, records of the number of registered manufacturers and importers of related tobacco products became available for the first time, totalling three manufacturers and 20 importers. According to the Tobacco Act, related products are defined as items with or without nicotine that are not made of tobacco but otherwise meet the criteria for being classified as tobacco products. These include refill liquids for e-cigarettes, herbal smoking or glow stick products, nicotine pouches and waterpipe products.

Table 5 provides an overview of the registered brands in various tobacco product categories in the 2018-2023 period.

Table 5 / Registered tobacco brands by product category in Serbia, 2018-2023

Registered brands	2018	2019	2020	2021	2022	2023
Cigarettes	655	670	670	704	723	744
Cigars	629	694	810	949	1099	1285
Cigarillos	108	126	129	136	150	152
Hand-rolled tobacco	122	149	185	469	600	682
Pipe tobacco	50	50	50	50	50	50
Chewing tobacco	23	23	23	23	23	23
Nasal tobacco (burmut)	5	5	5	5	5	5
Heated tobacco products	24	28	37	60	65	83

Source: Serbian Tobacco Administration 2024

Table 6 contains data on the number of active registered trademarks on the Serbian market. Active brands of tobacco products are those that are currently sold and commercially present on the market. While all active brands are registered, not all registered brands are necessarily active, as some of them may no longer be produced or distributed even though they are legally recognised.

Table 6 / Active tobacco brands by product category in Serbia, 2018-2023

Active brands in the domestic market	2018	2019	2020	2021	2022	2023
Cigarettes	225	226	207	216	219	231
Cigars	248	304	406	511	569	664
Cigarillos	47	48	64	44	56	58
Hand-rolled tobacco	60	70	68	183	344	355
Pipe tobacco	8	8	5	5	5	5
Chewing tobacco	8	8	4	2	1	/
Nasal tobacco (burmut)	/	/	/	/	/	/
Heated tobacco products	10	14	16	31	31	43

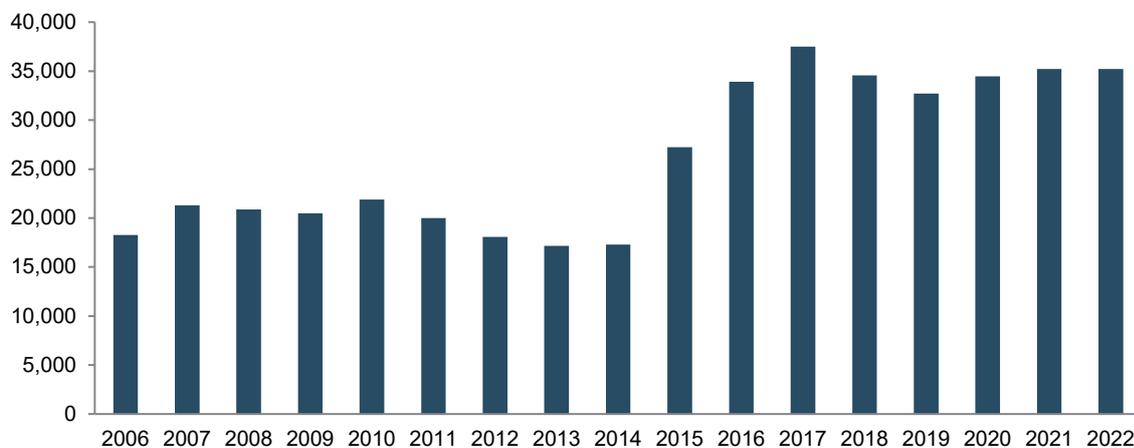
Source: Serbian Tobacco Administration 2024

The number of active cigarette brands shows a slight but steady upward trend over the years, indicating the continued popularity of this tobacco product category. There has also been significant growth in the number of active brands of cigars and moderate growth in the number of active brands of cigarillos, indicating increasing consumer interest in higher-quality tobacco products. This trend reflects the general improvement in living standards, which is reinforced by the relatively small size of the illicit tobacco market. Of particular note is the rapid expansion of active brands for HTPs, with a significant increase observed from 2020 onwards.

Cigarette production in Serbia has changed over the years, influenced by factors such as privatisation, the entry of new competitors, and the impact of free trade agreements. These include the establishment of a free trade area with the EU under the Stabilisation and Association Agreement as well as various agreements, including the Central European Free Trade Agreement (CEFTA), the European Free Trade Association (EFTA) and the Open Balkans Initiative. Since 2014, production has increased significantly thanks to major investments by companies like JTI and BAT, which have expanded their capacities and operations in Serbia. Notable investments have included new machinery, production lines and storage facilities, which have contributed to an increase in production, from 17.3 billion cigarettes in 2014 to 37.5 billion in 2017. Cigarette production subsequently fell in 2018 and 2019, but it rose again in 2020 and continued to increase in the following years.

The tobacco industry in Serbia was one of the few sectors that increased its production and exports during the pandemic. According to the Serbian Chamber of Commerce (Danas 2020), the production of tobacco products increased by 18.8% in the first five months of 2020 compared to the same period in 2019. This increase was entirely due to higher exports, as cigarette consumption in Serbia fell by around 10% in the same period. In the first five months of 2020, 14,008 tonnes of cigarettes (worth around EUR 87 million) were exported, which is roughly 22% more than in 2019. The growth in exports was driven by increased demand on international markets, particularly in Japan.

Since 2020, cigarette production has shown a continuous upward trend, peaking at 37.822 million cigarettes in 2022 (Figure 4).

Figure 4 / The total annual number of cigarettes produced (sticks m)

Source: Statistical Office of the Republic of Serbia 2023

3.4. FOREIGN TRADE OF TOBACCO PRODUCTS

According to the Statistical Office of the Republic of Serbia (2024), Serbian exports of tobacco products increased significantly between 2002 and 2017, from EUR 4.2 million in 2002 to a peak of EUR 301.9 million in 2016. While growth was steady in the early 2000s, there were significant jumps from 2013 onwards, especially after 2014, when exports more than doubled compared to the previous year, reaching EUR 111.7 million. This was the result of extensive investment in the expansion of production capacities by JTI. In 2017, however, exports fell to EUR 229.6 million after the record year of 2016.

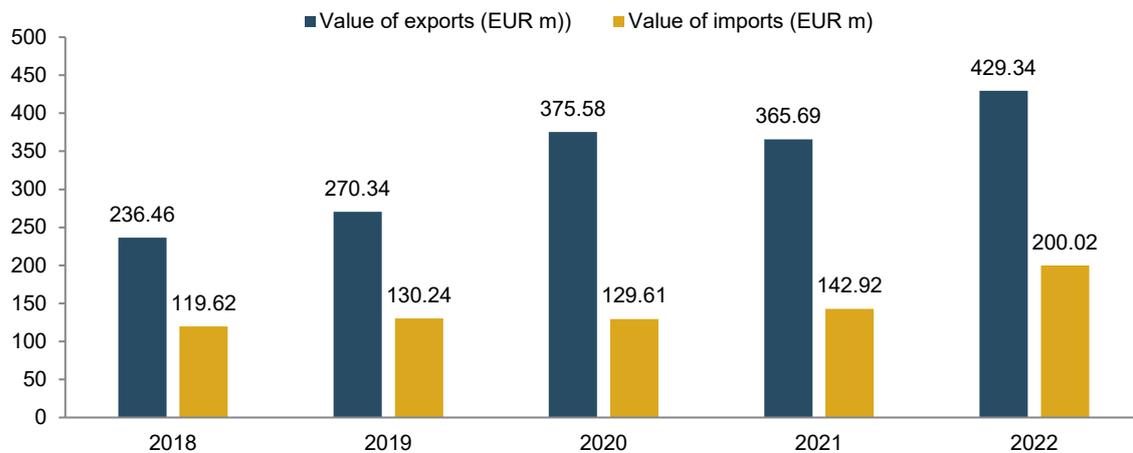
The value of exports within the tobacco products manufacturing sector in Serbia showed a steady upward trend from 2018 to 2022, with the exception of 2021, when a decline in exports was recorded. Overall, exports increased in the observed period, from EUR 236.5 million in 2018 to EUR 429.3 million in 2022 (Figure 5). This steady growth indicates a strong and growing presence of tobacco products manufactured in Serbia on the international market.

From 2002 to 2017, imports of tobacco products from Serbia showed fluctuations, rising from EUR 71.6 million in 2002 to a peak of EUR 90.9 million in 2016, before falling to EUR 80.7 million in 2017. However, a remarkable upward trend began in 2018, when imports reached EUR 119.6 million, and it continued to rise, reaching EUR 200 million in 2022. The increase in imports during the observed period can be attributed to the increasing number of tobacco importers, growing demand for certain tobacco products, and the specialisation of production by BAT, which has distributed the production of its brands to three factories (in Romania, Croatia and Serbia). The increased demand has led to a significant increase in the number of registered brands for cigars, RYO tobacco and HTPs on the domestic market.

Various external factors may have influenced these trends, including the global economic situation, exchange rate fluctuations, changes in international trade policies, and shifts in consumer preferences. For example, the increase in both exports and imports in 2022 could be partly due to the post-pandemic economic recovery and adjustments in global supply chains.

The data presented in Figure 5 represents the value of imports and exports according to industry classification and specifically reflects companies that are officially registered for the production of tobacco products. The export volumes in the tobacco products manufacturing sector in Serbia can be explained by the production specialisation strategy of companies like BAT. While many brands produced in Croatia and Romania are imported to Serbia, Serbia itself produces a significant number of brands that are exported. This division of production allows Serbia to export a large proportion of its locally manufactured tobacco products, which contributes to the higher export figures compared to imports.

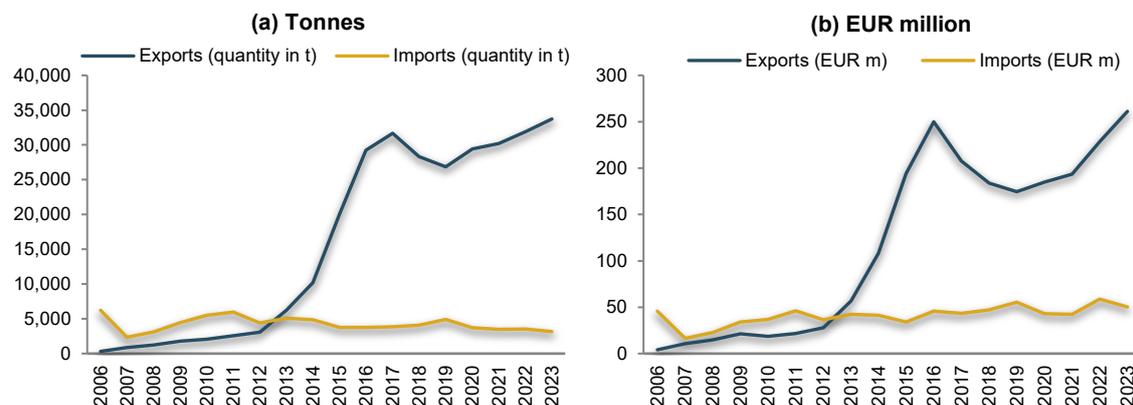
Figure 5 / Foreign trade in tobacco sector in Serbia, 2018-2022



Source: Statistical Office of the Republic of Serbia (2023)

From 2006 to 2017, cigarette imports and exports showed different trends (Figures 6a/b). Imports declined in terms of volume and value, mainly due to the major takeovers of BAT. Investments in tobacco production and expanded production capacities contributed to the increase in exports. The volume of cigarette imports initially increased in 2018, but they have been declining since 2020. In terms of value, imports fell in 2020 and then further in 2021, but they rebounded in 2022 before falling again in 2023. Conversely, exports declined in both volume and value in 2018 and 2019, but they experienced a notable recovery in 2020, with this positive trend continuing in subsequent years.

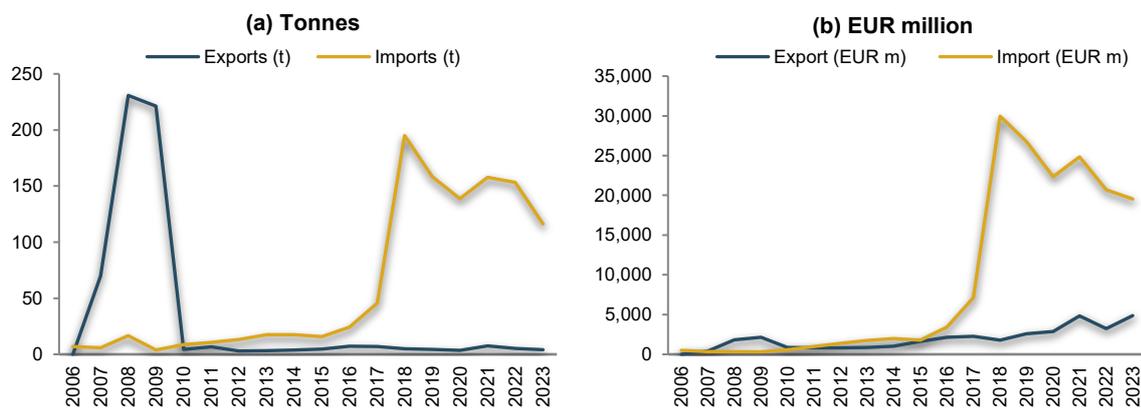
Figure 6 / Foreign trade of cigarettes in Serbia, 2006-2023



Source: Statistical Office of the Republic of Serbia (2024)

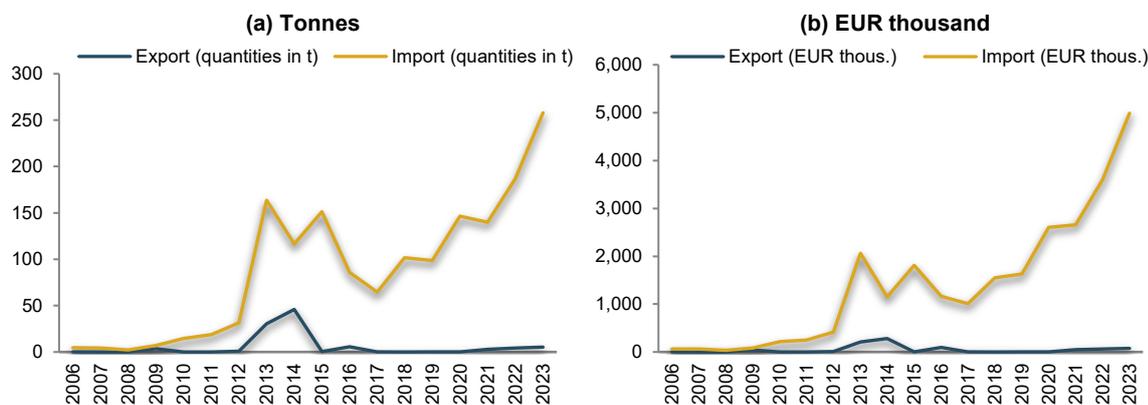
Since tobacco consumption in Serbia consists mainly of cigarettes, the volume of other tobacco products (e.g. smoking tobacco, cigars and cigarillos) is comparatively low. In foreign trade with these products, imports clearly exceed exports (Figures 7a/b and 8a/b). The increase in imports of cigars and cigarillos can be attributed to the growing number of registered cigar brands on the Serbian market, which doubled between 2018 and 2023. This clearly indicates a demand for these products, especially given the significant shifts in imports from 2016 onwards.

Figure 7 / Foreign trade of cigars and cigarillos in Serbia, 2006-2023



Source: Statistical Office of the Republic of Serbia (2024)

Figure 8 / Foreign trade of smoking tobacco in Serbia, 2006-2023



Source: Statistical Office of the Republic of Serbia (2024)

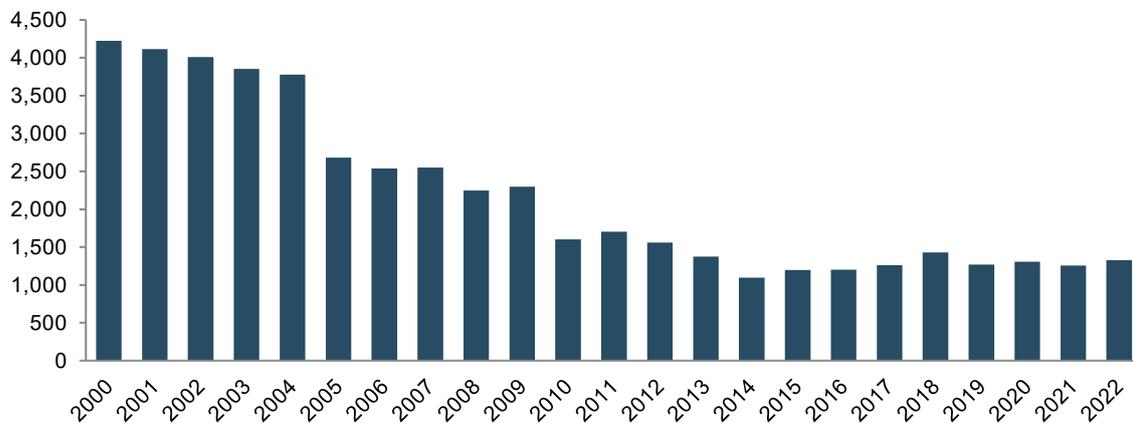
3.5. EMPLOYMENT IN THE SECTOR

The percentage of employment in the tobacco products manufacturing sector relative to the total employment in Serbia is minimal, fluctuating between 0.06% and 0.07% in the 2018-2022 period (Statistical Office of the Republic of Serbia 2023). Since 2000, the number of employees in cigarette manufacturing in Serbia has significantly declined. The first major reductions occurred in 2004 and 2005, following two major privatisations. The opening of a new local company in 2005 did not lead to a significant increase in employment, and the number of employees further decreased from 2005 to 2006.

Another notable decrease happened from 2009 to 2010 due to massive layoffs at PMI, which outsourced many non-manufacturing activities (e.g. restaurant services, maintenance and packaging).

In 2022, registered employment in the manufacturing of tobacco products was 1,329. While there were declines in employment in 2019 and 2021, there was a slight increase in 2022 (Figure 9). The continuous decline in tobacco industry employment is attributed to new investments in production facilities, automation and the capital-intensive nature of production. These figures encompass employees at legal entities, persons individually running businesses, unincorporated enterprises and their employees.

Figure 9 / Registered employment in the tobacco industry in Serbia, 2000-2022



Source: Statistical Office of the Republic of Serbia (2023)

Based on 2021 data, large enterprises engaged in the manufacturing of tobacco products employed the highest number of workers (835), followed by medium-sized enterprises (474). These figures, which encompass both employees and self-employed individuals, are presented according to the industry classification, thereby representing the entire tobacco sector in Serbia.

Table 7 provides insight into the average net wages and salaries (in RSD) across the observed years, indicating fluctuations in earnings over the period. While there was a noticeable increase from 2018 to 2019, followed by a significant rise in 2020, the figures dipped slightly in 2021 before climbing again in 2022. Expressed in EUR, the average net monthly wages and salaries amounted to EUR 850.3 in 2018 and increased to EUR 1,074 in 2022.

Table 7 / Average net monthly wages and salaries in the manufacture of tobacco products in Serbia, 2018-2022

Year	Value in RSD	Value adjusted for inflation (2022 prices)
2018	100,563	114,667
2019	108,589	121,351
2020	127,222	139,326
2021	119,653	129,545
2022	126,190	126,190

Source: Statistical Office of the Republic of Serbia (2023); authors' calculation

4. Demand for tobacco products

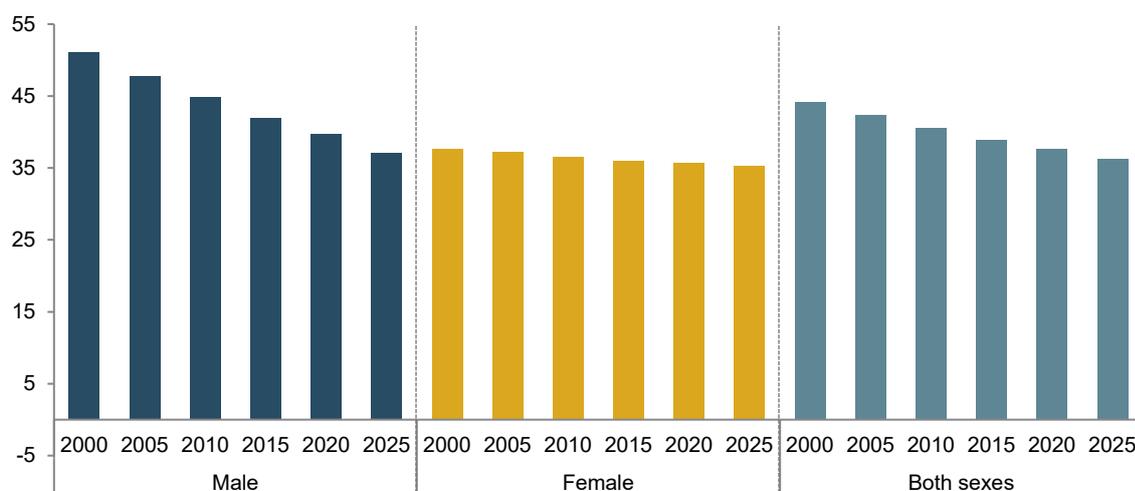
This section provides a detailed analysis of tobacco use in Serbia, highlighting the (generally declining) prevalence of smoking and the related patterns. The report also looks at the use of alternative tobacco products, such as the increasing importance of heated tobacco products (HTPs), electronic cigarettes and water pipes, with notable consumption among young adults and school-age children. Monitoring alternative tobacco products has only recently begun, which limits our analysis of long-term consumption trends and market shifts.

4.1. PREVALENCE OF SMOKING

According to a recent UNDP report on tobacco control in Serbia (UNDP 2024), the prevalence of smoking in Serbia is one of the highest in Europe, with 37% of adults currently being smokers. The average daily cigarette consumption of Serbian smokers is 16.6 (18.8 for men and 14.4 for women) (Zubović et al. 2020a). Looking at the other countries of the Western Balkans, smoking prevalence in Serbia is lower than in Montenegro (41%), Bosnia and Herzegovina (41%), and North Macedonia (48%) (UNDP 2024). In the EU, 25% of the population aged 15 and over smoked in 2020 (Eurostat 2024).

The WHO's global report on tobacco trends (WHO 2021) shows that tobacco use in Serbia has been declining since 2000. Prevalence rates among men have fallen steadily, while rates among women have remained relatively stable, leading to a narrowing of the gender gap in tobacco consumption (Figure 10).

Figure 10 / Smoking prevalence trends among people aged 15 years and older in Serbia, 2000-2025 (%)



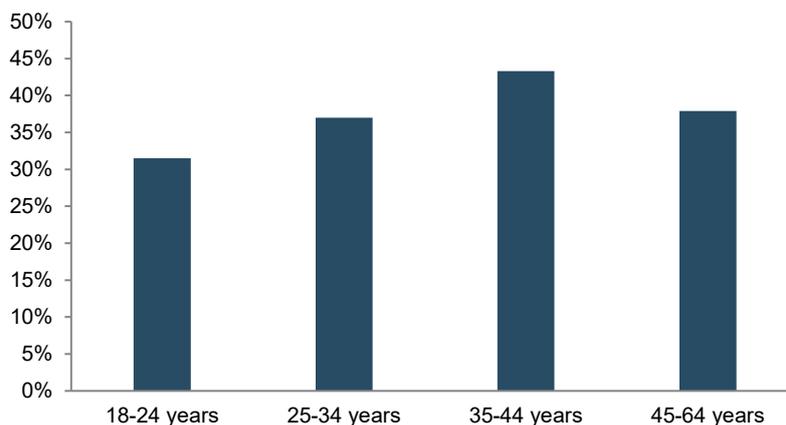
Note: Data for 2020 and 2025 are estimates

Source: WHO (2021)

In Serbia, tobacco consumption has been one of the most widespread health risk factors for many years, as confirmed by the results of the 2019 Serbian National Health Survey (Statistical Office of the Republic of Serbia 2021). In 2023, a survey specifically on the consumption of tobacco and tobacco-related products among the adult population in Serbia was conducted by the Office for Smoking Prevention of the Institute of Public Health of Serbia 'Dr. Milan Jovanović Batut' (IOPHOS 2024). The sample included 1,598 residents aged 18-64. The survey collected data on the frequency of smoking cigarettes, electronic cigarettes and HTPs as well as on exposure to tobacco smoke.

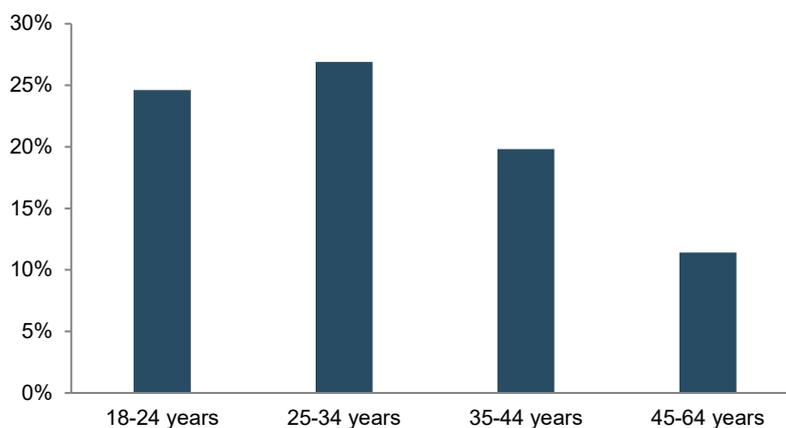
The survey found that 37.9% of adults in Serbia smoke cigarettes occasionally or daily. The highest prevalence of smoking is found in the 35-44 age group (Figure 11). Within this age group, the majority (81.8%) smoke daily. In addition, one in five adult smokers consumes more than one pack of cigarettes per day.

Figure 11 / Smoking prevalence among individuals aged 18-64 in Serbia (%)



Source: IOPHOS (2024)

Figure 12 / Share of adults aged 18-64 in Serbia who have tried e-cigarettes (%)

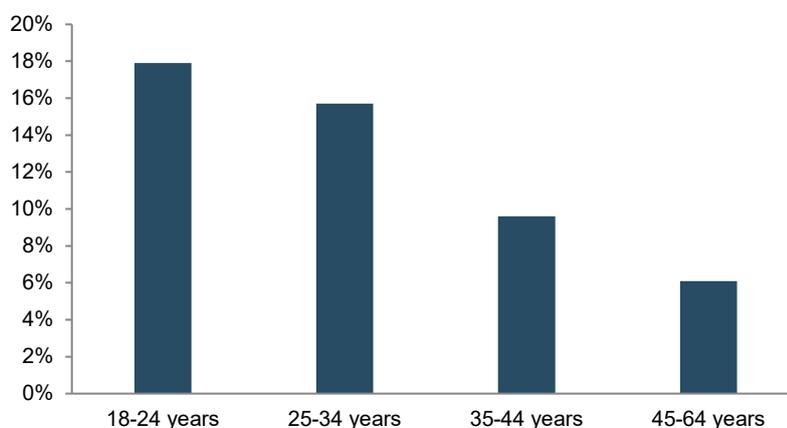


Source: IOPHOS (2024)

The survey found that 18.4% of the adult population had tried electronic cigarettes at least once (17.5% of men compared to 19.3% of women). The highest percentage of people who had tried electronic cigarettes was in the 25-34 age group (Figure 12).

The research results showed that 10.6% of the adult population had smoked hookah at least once (14.9% of men versus 6.4% of women). The highest percentage of hookah users was in the 18-24 age group (Figure 13).

Figure 13 / The percent of adults aged 18-64 in Serbia who have smoked hookah at least once (%)



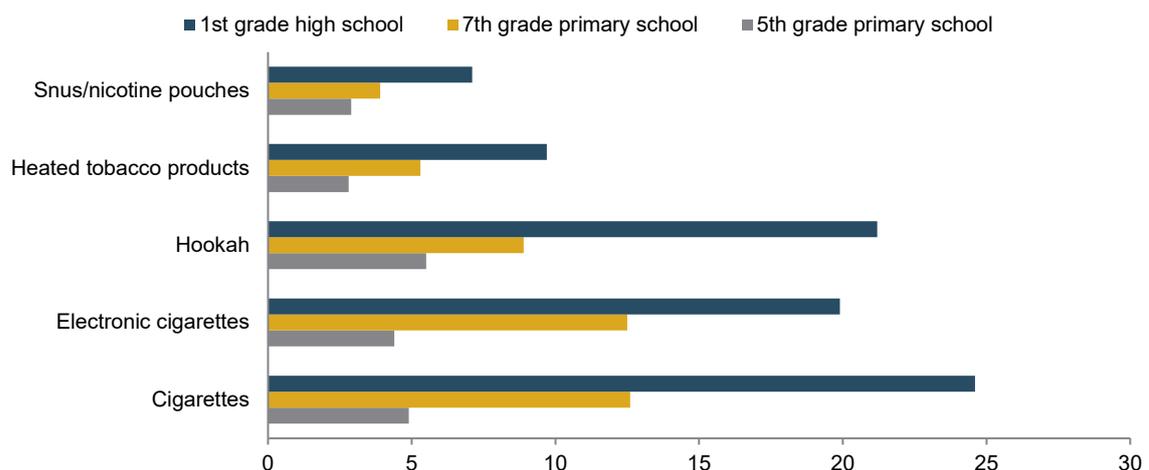
Source: IOPHOS (2024)

Despite the legal framework established by the Law on the Protection of the Population from Exposure to Tobacco Smoke (Official Gazette 2010), which prohibits smoking in indoor workplaces as well as healthcare, education and other public places, research shows that compliance is widespread. A significant proportion of the population continues to be exposed to tobacco smoke, suggesting that enforcement of these regulations is inadequate. Among those to whom the question applied, exposure to tobacco smoke was found to be as follows for people aged 18-64: 43% in the workplace, 24% in educational institutions, and 85% in the hospitality industry. In addition, 23% of respondents reported being exposed to e-cigarette aerosols, with 33% of exposed respondents reporting discomfort from this exposure.

Another example of the widespread exposure to tobacco smoke is the study on adult tobacco consumption in Serbia conducted by the Institute of Economic Sciences (IES; Zubović et al. 2020a), which provides further disturbing results. A remarkable 48.1% of adults reported being exposed to tobacco smoke in their homes, showing that the problem goes beyond public spaces. In the workplace, 20% of adults work in companies where smoking is allowed in some indoor spaces, while 6.6% are employed in companies where smoking is allowed both in- and outdoors. In addition, 9.3% work in companies that do not have smoke-free policies. The problem is even more serious in restaurants, where 91.8% of bar patrons and 86.5% of restaurant patrons reported being exposed to second-hand smoke. These figures underline the ongoing challenge of enforcing tobacco control laws in environments where smoking remains socially acceptable despite existing legal restrictions.

IOPHOS has been actively monitoring youth tobacco use through the Global Youth Tobacco Survey (GYTS). This nationally representative school-based survey of students in grades 13 to 15 was conducted in 2003, 2008, 2013 and 2017. The latest GYTS survey found that around one in 10 students currently smoke cigarettes. It is particularly striking that the smoking rate is higher among girls (11.2%) than boys (10.9%). The survey also found that around a third of students (36.8%) had tried cigarettes at least once, with similar rates between the sexes (36.6% for boys and 36.8% for girls). In addition, 6.2% of students used electronic cigarettes, while 9.0% smoked hookah. Of particular concern is the fact that around 60% of students were exposed to tobacco smoke in their homes, in enclosed spaces and in public spaces. The IES study (Zubović et al. 2020a) further underlines the severity of the problem, showing that 80% of households with children under the age of 14 allow smoking indoors. In addition to these alarming results, the GYTS data also show that more than 80% of current smokers were not prevented from buying cigarettes despite their age, even though the Tobacco Act prohibits the sale of tobacco products to minors.

Figure 14 / Tobacco and nicotine product use prevalence among youth (%)



Note: Prevalence refers to current use for electronic cigarettes and ever use for all other products.

Source: IOPHOS (2023)

IOPHOS has also conducted the Health Behaviour in School-Aged Children Survey (HBSC), an international study that monitors the health and well-being of adolescents in Europe and North America. So far, the Institute has conducted three HBSC surveys (in 2017, 2018 and 2022). The most recent survey was conducted in the 2021/2022 school year and included 3,962 students from 101 elementary school (grades 5 and 7 of elementary school – ages 11 and 13) and secondary schools (first grade – age 15) in Serbia.

The results on the prevalence of tobacco use in the observed population show that 15.1% of students smoked cigarettes at least once (14.5% of boys and 15.6% of girls). In addition, 12.8% smoked hookah (13.0% of boys and 12.7% of girls). HTPs have been used at least once by 6.3% of pupils (6.1% of boys and 6.3% of girls).

In terms of current tobacco consumption, 10.2% of students currently smoke cigarettes (10.5% of boys and 10.0% of girls). The consumption of water pipes is currently at 7.1% (with 7.9% for boys and 6.3% for girls). HTPs are currently used by 4.5% of students (4.4% of boys and 4.5% of girls).

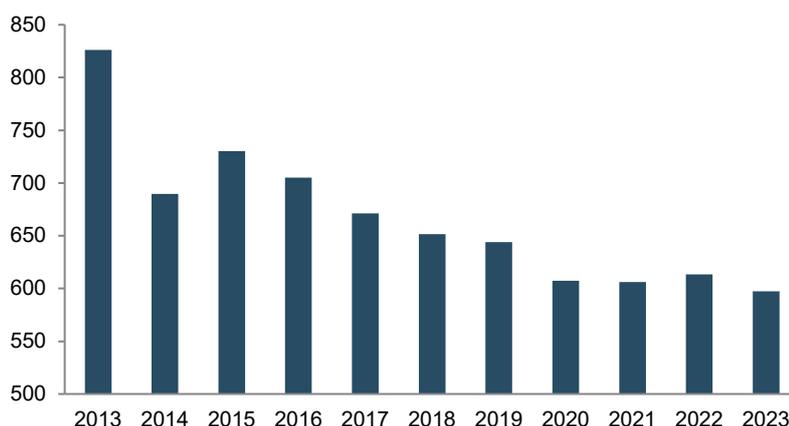
In addition, one in five students in Serbia has tried electronic cigarettes, and the use of e-cigarettes and snus increases with age. Specifically, 19.7% of students have used e-cigarettes at least once (18.4% of boys and 20.8% of girls), while 13.0% have used e-cigarettes in the last 30 days (11.6% of boys and 14.3% of girls). Snus has been used at least once by 4.9% of students (6.2% of boys and 3.7% of girls), while 3.0% have used snus in the last 30 days (3.7% of boys and 4.6% of girls).

The data show that primary and secondary school students in Serbia have significant exposure to a range of different tobacco products, with notable differences between genders. While boys were generally more likely to smoke conventional cigarettes, girls reported more frequent use of HTPs and e-cigarettes. This trend suggests that the preferences of the younger population are shifting towards alternative tobacco products, which in turn highlights the need for targeted public health interventions to address these new patterns of tobacco use.

4.2. TOBACCO PRODUCTS CONSUMPTION

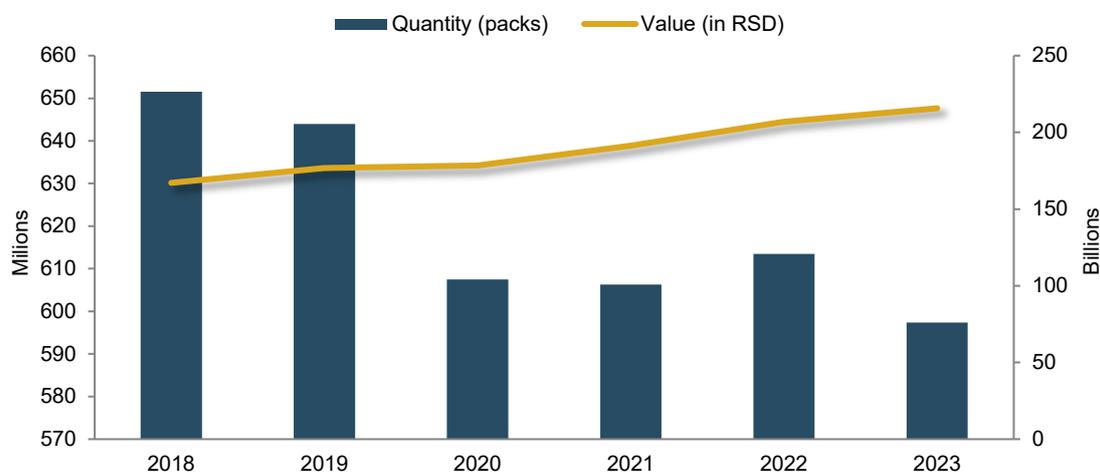
Like the prevalence rate, cigarette consumption in Serbia has also shown a downward trend over the last 10 years. After 2015, a constant decline in sales figures was observed. There was a slight increase in 2022, followed by a decline in 2023, with sales totalling 597 million packs (Figure 15).

Figure 15 / Cigarette sales in Serbia, 2013-2023 (packs m)



Source: Serbian Tobacco Administration (2024)

However, the value of cigarette sales steadily rose over the 2018-2023 period, indicating a significant increase in the average price per pack. This reflects the impact of the increase in tobacco tax according to the tobacco calendar and price adjustments in line with the annual inflation rate (Figure 16).

Figure 16 / Cigarette sales in Serbia, 2018-2023, packs and value (in RSD)

Source: Serbian Tobacco Administration (2024)

Table 8 / Best-selling cigarette brands in Serbia and their retail prices (RP) at the end of the year, 2018-2023

Year	Cigarette	RP (RSD/pack)	RP (EUR/pack)
2018	L&M Loft XL (Blue)	220.00	1.88
	Winston 100's Red (Gold)	280.00	2.39
	Bond Street (Red Selection, 100's)	240.00	2.05
2019	L&M Loft XL (Blue)	240.00	2.05
	Winston 100's Red (Gold)	290.00	2.48
	Pall Mall (Longs Blue)	240.00	2.05
2020	L&M Loft XL (Blue)	260.00	2.22
	Winston 100's Red (Gold)	310.00	2.65
	Pall Mall (Longs Blue)	260.00	2.22
2021	L&M Loft XL (Blue)	280.00	2.39
	Winston 100's Red (Gold)	330.00	2.82
	Pall Mall (Longs Blue)	280.00	2.39
2022	L&M Loft XL (Blue)	300.00	2.56
	Winston 100's Red (Gold)	350.00	2.99
	Pall Mall (Longs Blue)	300.00	2.56
2023	L&M Loft XL (Blue)	330.00	2.82
	Winston 100's Red (Gold)	380.00	3.25
	Pall Mall (Longs Blue)	330.00	2.82
2024	L&M Loft XL (Blue)	360.00	3.08
	Winston 100's Red (Gold)	410.00	3.50
	Pall Mall (Longs Blue)	360.00	3.08

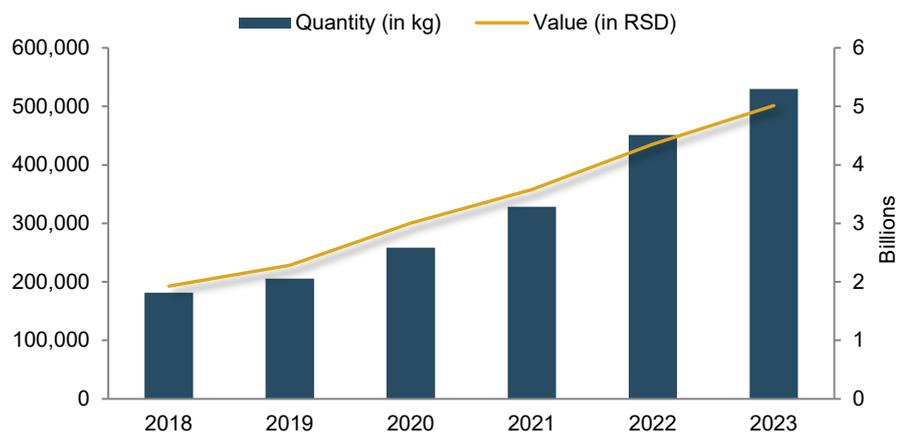
Source: Serbian Tobacco Administration (2024)

Table 8 presents the best-selling cigarette brands in the 2018-2023 period, along with the corresponding retail price (RP) per pack (in both RSD and EUR). The market dominance of multinational tobacco companies is clear and has continued steadily since 2014, when domestic brands were replaced by the brands of multinational companies that entered the Serbian market. The three best-selling brands over

the years are all owned by these global companies: L&M Loft XL (Blue) by PMI, Winston 100's Red (Gold) by JTI, and Pall Mall (Longs Blue) by BAT. Changes in the best-selling brands were not common during the observed period, as the last four years show a stable trend in the best-selling cigarette brands. The trend for the increases in the RPs of the most popular brands remained constant during the observed period. This was due to inflation as well as rising excise taxes, which are in line with the excise tax calendar published at least twice a year.

Figure 18 shows data on the quantity and value of hand-rolled (RYO) tobacco on the Serbian market during the observed period. The data indicate a notable increase in both the quantity and value of RYO tobacco sales, reflecting increased demand. This increase may be due to several factors, including changes in cigarette prices. As cigarette prices rise, consumers may opt for less expensive alternatives, such as RYO tobacco.

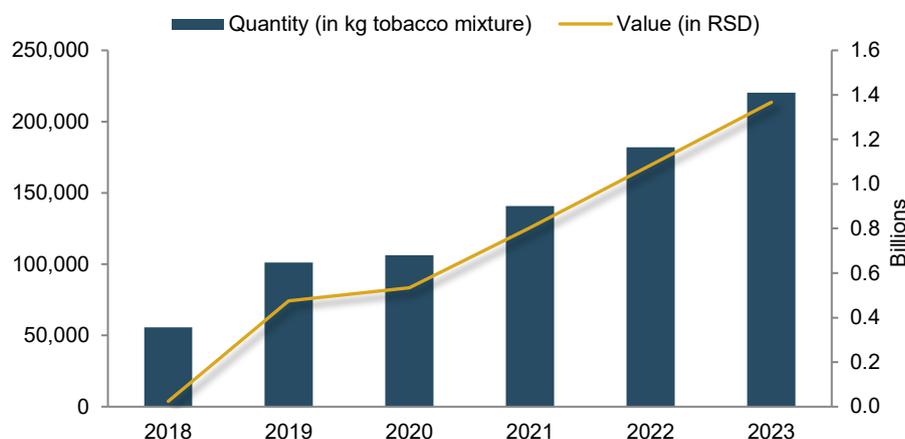
Figure 17 / RYO tobacco sales in Serbia, 2018-2023



Source: Serbian Tobacco Administration (2024)

The data in Annex Table A shows trends in consumer preferences and price adjustments for popular brands of RYO tobacco. Key brands (e.g. Pall Mall Blue and George Karelias & Sons Hrt) were consistently in demand. During the period under review, the prices of RYO tobacco have shown a clear upward trend.

Figure 18 shows the volume and value of sales of HTPs on the Serbian market during the observed period. There is a steady upward trend in both the volume and value of sales, indicating a continued increase in demand for this relatively new and rapidly developing category of tobacco products. Several factors may contribute to this trend, starting with the widespread belief that HTPs are less harmful than conventional cigarettes (Seo et al. 2023; Xu et al. 2020). Other factors include the desire to quit or reduce smoking (Lavery et al. 2021) or even to supplement smoking (Luk et al. 2021). Other potential reasons are evolving consumer preferences resulting from product innovation and appealing design, the peers' impact, and the intense marketing and promotional activities, especially in bars and cafés.

Figure 18 / Heated tobacco products sales in Serbia, 2018-2023

Source: Serbian Tobacco Administration (2024)

Data on the most popular brands of HTPs in Serbia from 2018 to 2023 (presented in Annex Table B) show a constant presence of Heets in various flavours, indicating their dominance in the domestic market. During the observed period, there was a clear upward trend in retail prices, with the exception of 2021, when prices experienced a period of stagnation.

When converting fine RYO tobacco into cigarette packs (as shown in Table 9), its share of total cigarette sales would increase from 1.35% in 2018 to 4.01% in 2023, while HTPs would grow from 1.38% to 5.56% of the total market. This indicates a relatively small contribution to total cigarette sales despite the significant growth of RYO tobacco over this period.

Table 9 / Legal sales of tobacco products, 2018-2023

	RYO sales (expressed in packs of cigarettes)	HTP sales (packs of HTPs)	Cigarette sales (packs)
2018	9,071,520	9,277,625	655,508,810
2019	10,281,258	16,871,820	643,571,991
2020	12,936,480	17,725,255	611,308,631
2021	16,419,965	23,447,155	608,184,647
2022	20,764,110	30,316,808	613,466,976
2023	26,498,466	36,718,415	597,263,985

Source: Serbian Tobacco Administration (2024); authors' calculation

Tables 10 and 11 show the volumes and values of chewing and pipe tobacco sales on the Serbian market from 2018 to 2023 as well as their price per kilogram. Chewing tobacco sales show a consistent downward trend, with the lack of data for 2023 possibly indicating unrecorded sales. Sales of pipe tobacco, on the other hand, have been stable over the years, with slight fluctuations but at a constant level overall. This indicates that the demand for pipe tobacco on the Serbian market remains relatively constant. The value of pipe tobacco shows a steady upward trend. This indicates that the value of pipe tobacco is increasing, even if the volume is not increasing significantly, due to higher prices or possible premiumisation of certain products.

Table 10 / Chewing tobacco sales in Serbia, 2018-2023

Year	Quantity (in kg)	Value (in RSD)	Price per kg (in RSD)
2018	43.37	2,240,024.41	51,649.16
2019	83.01	3,392,804.36	40,872.23
2020	26.49	1,384,800.30	52,276.34
2021	12.68	659,360.00	52,000.00
2022	0.98	50,960.00	52,000.00
2023	n/a	n/a	n/a

Source: Serbian Tobacco Administration (2024); authors' calculation

Table 11 / Pipe tobacco sales in Serbia, 2018-2023

Year	Quantity (in kg)	Value (in RSD)	Price per kg (in RSD)
2018	1,052.60	14,258,000.00	13,545.51
2019	1,077.15	14,421,700.00	13,388.75
2020	1,060.25	14,609,600.00	13,779.39
2021	1,040.10	15,713,400.00	15,107.58
2022	1,049.60	16,175,800.00	15,411.39
2023	1,158.30	18,118,700.00	15,642.49

Source: Serbian Tobacco Administration (2024); authors' calculation

The data in Annex Table C provide an overview of the best-selling chewing tobacco brands and their corresponding retail prices in Serbia from 2018 to 2023. During this period, Oden's Double Mint Extreme White Portion 20g and Oden's Cold Extreme White Portion 20g were consistently the most popular brands, maintaining a stable presence in the market. The lack of data for 2022 and 2023 (especially on new products or prices) suggests either a contraction in the market or a shift in consumer preferences away from chewing tobacco. This absence could also indicate minimal sales activity, which would be consistent with the general trend of declining interest in chewing tobacco.

The data on the best-selling pipe tobacco and its retail prices in Serbia from 2018 to 2023 (presented in Annex Table D) show the stability in popular products. After the period of constant prices, these prices started to increase from 2020, indicating a trend of gradual price increases for all major brands.

Table 12 / Cigars sales in Serbia, 2018-2023

Year	Quantity (pieces)	Value (in RSD)
2018	2,502,434	523,047,295.00
2019	3,020,733	604,911,100.00
2020	3,352,996	801,272,290.00
2021	4,221,407	1,059,104,145.00
2022	4,529,637	1,227,193,680.00
2023	5,261,858	1,601,162,150.00

Source: Serbian Tobacco Administration (2024)

Tables 12 and 13 present the quantities and values of cigars and cigarillos sales in the Serbian market over the observed period. Both cigars and cigarillos have shown consistent growth in quantities and value. However, as shown in Figures 7a and 7b, the increase in demand has been mostly met by

imported products. This sustained increase in consumer demand could be attributed to several factors, such as shifting consumer preferences towards premium tobacco products, the perceived luxury associated with cigars, the wide variety of flavoured options available for cigarillos, and the perception of these products as being substitutes for cigarettes. Additionally, the growing disposable income of consumers may have contributed to this trend.

Table 13 / Cigarillos sales in Serbia, 2018-2023

Year	Quantity (pieces)	Value (in RSD)
2018	2,576,251	187,912,010.00
2019	2,567,159	209,579,985.00
2020	2,985,140	250,504,140.00
2021	3,494,252	301,054,080.00
2022	4,128,500	369,720,260.00
2023	4,649,799	433,485,190.00

Source: Serbian Tobacco Administration (2024)

The data in Annex Table E provides an overview of the best-selling cigar brands in the Serbian market from 2018 to 2023. The data shows that Toscanello brands dominate the market and that prices remained constant until 2022, when gradual price increases began. The data on the best-selling cigarillo brands in the Serbian market over the observed period shows the dominance of the MOODS brand, which consistently appears as a top seller. There was an increase in retail prices in 2019, followed by a period of stable prices until 2022. In that year and the next, prices increased for all three top-selling cigarillo brands, as shown in the data presented in Annex Table F.

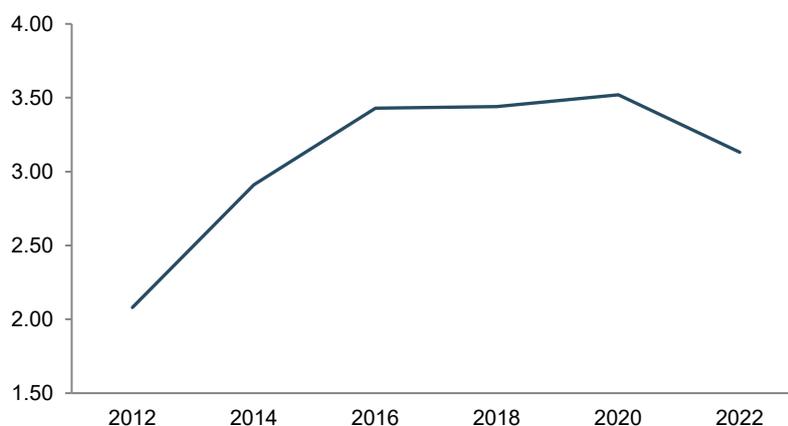
5. Tobacco control policies

Although Serbia performs better than the average of the countries in its income group and the global average, it is in the middle of the pack in terms of cigarette prices, tax share and tax structure in addition to performing poorly in terms of changes in affordability, as the internationally recognised Tobacconomics Scorecard shows.

5.1. EXCISE DUTIES ON TOBACCO PRODUCTS

Although the price of cigarettes has gradually increased over time and their affordability has decreased (Figure 19), the overall Tobacconomics Scorecard score for Serbia is currently 3.13 out of 5 (Tobacconomics 2024). This represents a decrease from the first edition of the Cigarette Tax Scorecard (Tobacconomics 2020), when Serbia had an overall cigarette tax score of 3.63 out of 5.

Figure 19 / Affordability of cigarettes in Serbia, 2012-2022



Source: WHO Global Health Observatory data repository 2024 <https://www.who.int/data/gho/data/indicators/indicator-details/GHO/tobacco-raise-taxes--affordability> (Accessed 1 August 2024)

This decline suggests that while there have been positive steps to raise cigarette prices, further improvements are needed in these areas to increase the effectiveness of tobacco tax policy, as tobacco tax increases have not always kept pace with increases in consumer purchasing power.

The excise tax policy for tobacco and tobacco products is governed by the Excise Tax Act, and the Ministry of Finance is responsible for formulating and implementing this policy. Excise duties are levied on cigarettes, cigars, cigarillos, smoking tobacco, HTPs, RYO tobacco, pipe tobacco, chewing tobacco, nasal tobacco (burmut), nicotine pouches, and e-liquid for electronic cigarettes.

Excise duty on cigarettes is paid per pack of 20 cigarettes. The basis for calculating the excise duty is the retail price of cigarettes, which is determined by the manufacturer or importer of the cigarettes. If the

calculated excise duty on cigarettes, smoking tobacco and other tobacco products is lower than the minimum excise duty determined by this law, the minimum excise duty is paid. Imported and domestically produced cigarettes are subject to a specific excise tax, the amount of which is determined by the excise tax calendar, which adjusts excise tax rates twice a year. The last adjustment of cigarette prices took place in May 2024, when cigarette prices were adjusted to the annual inflation rate. In addition, an ad valorem excise tax of 33% is calculated on the basis of the retail price of cigarettes, which is set by the manufacturer or importer of cigarettes.

Table 14 provides an overview of the specific excise tax amounts on cigarettes for the 2018-2025 period. This steady increase in excise taxes reflects a common fiscal strategy aimed at several policy objectives. These changes aim to align the level of excise duty with EU Directive 2011/64/EU, which requires the state to collect at least EUR 90 per 1,000 cigarettes or EUR 1.8 per pack by 2024.

Table 14 / Specific excise tax amount in Serbia, 2018-2025

Year	Amount per pack (in RSD)	Amount per pack (in EUR)
2018		
1) 1 January to 16 March	67.00	0.57
2) 17 March to 30 June	67.67	0.57
3) 1 July to 31 December	69.19	0.58
2019		
1) 1 January to 30 June	70.70	0.60
2) 1 July 1 to 31 December	72.22	0.61
2020		
1) 1 January to 30 June	73.73	0.63
2) 1 July to 31 December	75.25	0.64
2021		
1) 1 January to 30 June	76.75	0.65
2) 1 July to 31 December	78.25	0.66
2022		
1) 1 January to 30 June 30	79.75	0.68
2) 1 July to 31 December	81.25	0.69
2023		
1) 1 January to 30 June	82.75	0.70
2) 1 July to 30 September	84.25	0.72
3) 1 October to 31 December	90.99	0.78
2024		
1) 1 January to 30 April 30	92.61	0.79
2) 1 May to 30 June	97.70	0.83
3) 1 July to 31 December	99.41	0.85
2025		
1) 1 January to 30 June	101.12	0.86
2) From 1 July	102.83	0.88

Source: Official Gazette of the Republic of Serbia (2024)

As of October 2024, the excise tax on 1,000 cigarettes is approximately EUR 93.25 (authors' calculation based on the Excise Tax Law of the Republic of Serbia (Official Gazette of the Republic of Serbia 2024), the current best-selling cigarette, and the official average exchange rate of Serbian RSD to EUR). This amount is just above the minimum amount prescribed by Directive 2011/64/EU. The shortfall makes it

clear that further adjustments to align with EU standards are required. Achieving the prescribed excise duty level is not only a regulatory requirement, but also a decisive step towards reducing tobacco consumption in Serbia.

Table 15 shows the cigarette price structure for one of the three best-selling brands on the market, L&M Loft XL (Blue), which will have the same weighted average price in 2024 as the legislation mentioned above. The calculation is based on the price per pack in 2024 as determined by the Serbian Tobacco Administration.

Table 15 / Sample calculation for a pack of L&M Loft XL (Blue), 2024

Retail selling price (excluding taxes/net of tax)	RSD 81.79	EUR 0.70
+Excise duty – <i>specific tax</i>	RSD 99.41	EUR 0.85
+Excise duty – <i>ad valorem tax (33%)</i>	RSD 118.80	EUR 1.02
Total excise duty:	RSD 218.81	EUR 1.87
= Price (excluding VAT)	RSD 300.00	EUR 2.56
+ VAT 20%	RSD 60.00	EUR 0.51
= Retail price (including all taxes)	RSD 360.00	EUR 3.08

Source: authors' calculation

Excise duty on HTPs is paid per kilogram of tobacco mixture in the amount of:

- › 60% of the minimum excise duty on 1,000 cigarettes (determined for the category of average weighted retail price of cigarettes) for the period from 1 January to 31 December 2021
- › 70% for the period from 1 January to 31 December 2022
- › 80% for the period from 1 January to 31 December 2023
- › 90% for the period from 1 January to 31 December 2024
- › 100% from 1 January 2025

The excise duty on cigars and cigarillos is RSD 28.46 (EUR 0.24) per unit. The excise tax on smoking tobacco and other tobacco products is 43%, and the basis for calculating the excise tax is the retail price per kilogram.

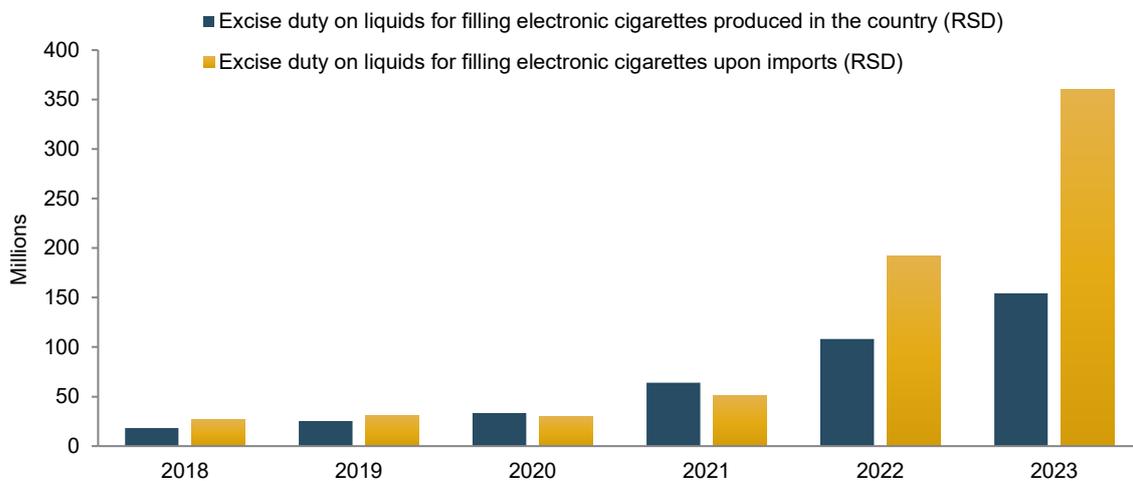
Excise duty on liquids for filling electronic cigarettes is paid per millilitre (equivalent to five cigarette sticks) as follows:

- › from 1 January to 31 December 2021: in the amount of 6.00 RSD/ml
- › from 1 January to 31 December 2022: in the amount of 7.00 RSD/ml
- › from 1 January to 30 September 2023: in the amount of 8.00 RSD/ml
- › from 1 October to 31 December 2023: in the amount of 8.64 RSD/ml
- › from 1 January to 31 December 2024: in the amount of 9.72 RSD/ml
- › from 1 January 2025: in the amount of 10.80 RSD/ml

The amount of 10.8 RSD /ml corresponds to EUR 18.46 per 1,000 sticks of cigarettes.

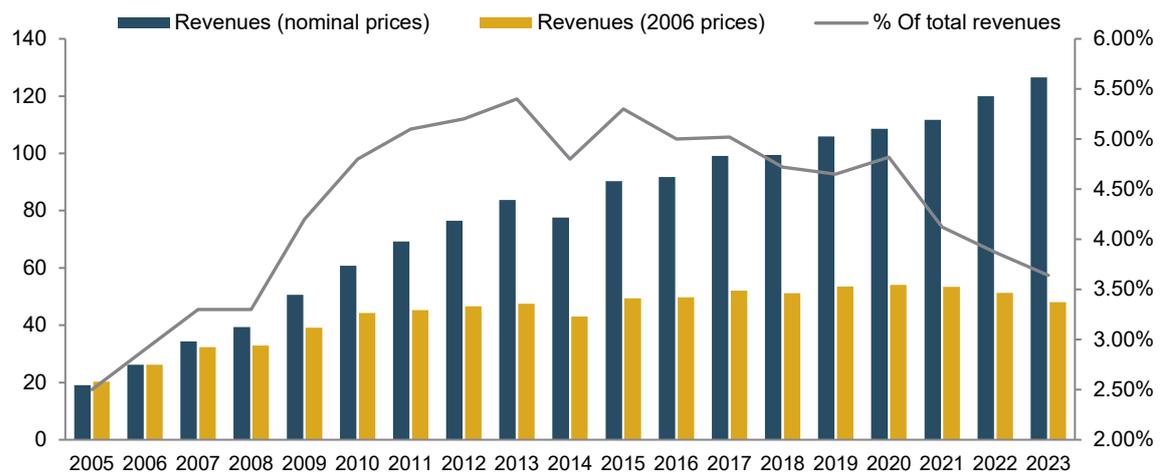
Figure 20 illustrates the increase in excise duty on domestically produced liquids for filling electronic cigarettes as well as those imported into Serbia during the observed period. The data indicates a steady increase in excise duty payments for both categories, with a particularly strong increase in duties on imported liquids. The excise duty on imported liquids increased from RSD 26,391,000 (approx. EUR 225,487.01) in 2018 to RSD 360,259,000 (approx. EUR 3,078,084.41) in 2023, a remarkable increase of 1,265%.

Figure 20 / Excise duty paid on liquids for filling electronic cigarettes produced in the country and upon import into Serbia, 2018-2023



Source: Serbian Treasury Administration (2024)

Figure 21 / Tobacco excise revenues to Serbia's national budget (RSD bn)



Note: Official statistics only provide data in the national currency. The EUR amounts were calculated by the authors using the RSD/EUR exchange rate averages for 2005 and 2023.

Source: Ministry of Finance of the Republic of Serbia (2024); authors' calculation

From 2005 to 2023, revenue from excise duties on tobacco products showed constant annual growth, with the sole exception of 2014, when there was a slight decline compared to the previous year. In 2023,

the total revenue from excise duties on tobacco products amounted to EUR 1,079,386,780. This is a significant increase compared to 2005, when revenue amounted to EUR 229,479,455, which corresponds to growth of 370.36%, or EUR 849,907,325 (Figure 21).

The law amending the Tobacco Act of October 2023 defines a new tobacco product, the nicotine pouch. The excise duty on nicotine pouches is paid per kilogram of net weight contained in the nicotine pouches in the amount of RSD 4,500.00 per kilogram. The obligation to pay excise duty on nicotine pouches arose on 1 January 2024.

Other important legislative updates include an amendment to the Excise Tax Act introducing the e-excise system, a centralised information system managed by the Ministry of Finance that came into force on 1 October 2024. It retrieves data from registers kept by the competent authorities as well as data on excisable goods, taxpayers and participants in trade. This system facilitates the electronic application for the issuance of excise stamps and excise warehouse permits as well as the management of business processes and communication between users. It also manages the business processes and communication between users of the e-excise system in relation to excise goods in addition to collecting, storing and processing data on the movement of excise goods.

The taxable person is obliged to affix an excise duty control mark or an excise duty control mark with a QR code to each of these goods individually while cigarettes are produced, before they are imported, or before they are placed on the market. The obligation to use excise stamps with QR codes began on 1 January 2025. When manufacturing, importing or, at the latest, importing at the place of customs clearance, the excise tax payer must first scan the QR code on the excise stamp for each of these products individually and enter additional information into the e-excise system, including: the product description; the place, date and time of manufacture; information about the production line; information about the market where the product will be sold; the brand code of the product; and the name of the product. After scanning the QR code for the first time, operators must scan the QR code on the excise stamp each time the product is received and immediately transmit the data on the scanned QR codes on the excise stamps via the e-excise system.

5.2. NON-PRICE POLICY INTERVENTIONS

In Serbia, there have been several attempts to introduce a total ban on smoking in public spaces, including cafés, bars, restaurants and other indoor spaces that are not regulated by the Law on Protection of the Population from Exposure to Tobacco Smoke (Official Gazette 2010). According to the law, smoking is prohibited in all workplaces, in enclosed spaces and in public spaces; in functional parts of spaces where health, education, childcare and social protection activities are carried out, including the courtyard area; and in open spaces for theatre, cinema and other types of performances. Smoking is also prohibited on public transportation. Exempt from the smoking ban in workplaces and public spaces are places where food or beverages are served and accommodation establishments.

The most recent attempt to further restrict public smoking was initiated in 2023 by former Minister of Health Dr. Danica Grujičić, who told the media that the proposed law on a total ban on smoking in public places had been finalised and submitted to other ministries for adaptation. However, the law has not been passed yet. In any case, a large-scale survey conducted by the IES on adult smokers' attitudes to

control measures has shown that there is strong support for the introduction of such a ban (Zubović et al. 2020b). Of the 1,000 respondents, 40.4% were in favour of a complete ban on smoking and vaping indoors. In addition, 26.2% said they would cut down on smoking and 3.9% said they would probably stop smoking if such a policy were implemented. A proposed 20% increase in the price of tobacco products was only supported by 13.6%. However, this figure rose to 40.3% when participants were informed that the government revenue from the price increase would go towards health, education and social welfare.

Data on attitudes towards the smoking ban provided by IOPHOS (2023) showed that 76.9% of respondents supported the implementation of the existing law on the smoking ban, while only 12% believed that the law would be fully complied with. Respondents were also largely in favour of laws to protect children from tobacco smoke in various areas, including outdoor sports facilities (44%), parks (47%), children's playgrounds (70%) and cars in the presence of minors (78%). Smoking is prohibited in less than one fifth of households, while it is permitted in all rooms in 33% of households.

Public health measures in Serbia include educational programmes to prevent tobacco use among primary and secondary school students, which are implemented and supported by the Ministry of Education. Local and international non-governmental organisations also run socially responsible programmes to combat tobacco use among young people. For example, the Mission:Oxygen¹ programme aimed to improve law enforcement with a focus on educating young people in Serbia about the full extent of the harm associated with tobacco smoke in a way they could understand.

In recent years, efforts have been made to intensify non-price tobacco control measures in order to reduce the prevalence of smoking. One of these measures has been a toll-free smoking cessation telephone helpline, which was opened by the Serbian Institute of Public Health in June 2022 and is staffed by live operators. This helpline offers callers a dedicated platform to discuss smoking cessation strategies. The aim is to further motivate and support smokers who have decided to quit as well as those who have already quit and want to maintain their non-smoking status. The Institute has reported that residents of Serbia from different age groups have sought advice through this free hotline, with health concerns being the main motivation for most to quit smoking. The counsellors' support was sought not only by smokers and former smokers, but also by people concerned about the health of close contacts who continue to smoke. In addition, the Institute launched an online support platform in September 2023 to help individuals in their efforts to quit smoking.

¹ <https://rs.missionoxygen.com>

6. Estimates of illicit production and trade

The World Health Organization's Framework Convention on Tobacco Control (FCTC) came into force in Serbia on 9 May 2006. On 25 April 2017, Serbia became the 28th country to ratify the Protocol to Eliminate Illicit Trade in Tobacco Products.

In Serbia, illegal tobacco cultivation takes place on unregistered plantations, where growers have failed to report their activities to the tobacco administration. The tobacco grown in this way is intended for sale on the illegal market.

In 2023, the identified areas for illicit tobacco cultivation in Serbia amounted to only 24.3 ha, which is only a fraction compared to the 7,023 ha used for legally cultivated tobacco. Table 16 contains data on the control of illegal tobacco production carried out by the Plant Protection Inspectorate of the Directorate for Plant Protection of the Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia together with employees of the Ministry of Interior. The table contains data on the identified areas with illegal tobacco cultivation (in ha) from 2018 to 2023 and the estimate of the amount of eradicated illegal tobacco planted in the respective areas (in ha).

It was only possible to provide an estimate of the amount of eradicated illicit tobacco, as the eradication of illicit tobacco plantations was done by ploughing or uprooting, making it impossible to measure the exact amount of tobacco in the illicit areas. Accordingly, the Plant Protection Directorate could not accurately state the equivalent yield of tobacco in tonnes from these areas during the observed period. Instead, it was only possible to estimate the expected yield based on the multiyear average per hectare of cultivated land, which in this case is between 1.7 and 2.0 kg/ha.

Table 16 / Identified areas of illegal tobacco plantations (ha), 2018-2023

Year	Area (ha)
2018	67.3
2019	44.7
2020	81.5
2021	86.2
2022	15.0
2023	24.3

Source: Plant Protection Directorate (2024)

Customs Administration data shows a significant increase in the seizure of illegal tobacco products between 2018 and 2023. The most striking observation is the dramatic increase in the number of cigarettes seized. The relatively stable trend reversed drastically in 2022, and the upward trend continued in 2023 (Table 17).

The significant increase in seizures in 2022 and 2023 (especially for cigarettes) could be due to several factors, including increased efforts and cooperation with the Serbian Ministry of Interior and foreign

partners involved in anti-smuggling operations. In 2022, the Serbian Customs Administration managed to seize a record 50 tonnes of undeclared cigarettes of various brands, disrupting an organised chain of illegal cigarette trafficking. It was estimated that the 50 tonnes correspond to a mass of almost 40 million sticks of illegal cigarettes, which would be the largest single seizure of cigarettes ever recorded on the Serbia border. The seizure of RYO tobacco shows a similar, albeit less pronounced, trend.

Table 17 / Confiscated illegal tobacco products, 2018-2023 (million sticks)

Item/Year	2018	2019	2020	2021	2022	2023
Cigarettes (sticks)	1.09	4.31	4.15	1.02	63.770	111.92
RYO tobacco (kg)	212	492	13,824	757	188	2,821

Source: Customs Administration of the Republic of Serbia (2024)

The research conducted by the IES contributes to a better understanding of the illicit tobacco trade in Serbia. The study on tobacco tax avoidance and evasion in Serbia (Đukić et al. 2021) was the first research to assess the scope and specifics of the illicit market for manufactured tobacco (MC) and hand-rolled tobacco (RYO) in Serbia. The data for the study came from the Survey on Tobacco Consumption in Southeast Europe (STC-SEE) conducted by the IES in 2019 (Zubović et al. 2020b). The 2019 STC-SEE survey conducted in Serbia included a sample size of 2,000 adult respondents aged 18 to 85. All study participants who currently use tobacco products were asked about the details of their last purchase, including details of health warning labels (HWLs), tax stamps, pack prices and place of purchase. The final sample of MC smokers comprised 675 observations, while the final sample of RYO smokers comprised 70 observations.

Based on the research findings, it was concluded that the Serbian MC market is predominantly legal, with around 2.6% of MC smokers evading taxes – a relatively low rate by European standards. Taking smoking intensity into account, the overall proportion of illegal MC consumption was found to account for 2.4% of the MC market. In contrast, the research results showed that the RYO tobacco market had extremely high levels of tax evasion, with almost nine out of 10 RYO-cigarette smokers consuming illegal RYO tobacco (around 88.2% of RYO-cigarette smokers consumed illegal RYO tobacco, which accounted for 90.7% of total RYO tobacco consumption). A comprehensive analysis of factors influencing tobacco tax evasion in Serbia, including demographic and geographical differences in illicit consumption, can be found in Section II of the Annex.

As this is the only study of illicit tobacco trade in Serbia, we lack the data necessary to analyse trends over time or to determine whether illicit trade has increased following an increase in the excise tax or at certain excise tax thresholds. A similar study, titled 'Balkan Smugg – Smuggling of Tobacco Along the Balkan Route' was conducted in 2019 by the Institute of Economics, Zagreb (Barbić et al. 2019). According to this study, the percentage of smokers in Serbia who usually buy tobacco (MC and RYO) on the grey market is higher, at 6.5%. However, this data should be interpreted with caution as the study was funded by PMI IMPACT, a global PMI initiative, although the authors have stated that their research was conducted completely independently of PMI.

7. Summary and recommendations

This study recommends focusing on the following main areas for policy action:

Serbia is determined to achieve its strategic goal of EU accession, which requires the harmonisation of its regulations with those of the EU, including the Tobacco Tax Directive.

- › **Adjust Tax Policy:** Serbia must increase its tax rates to bring them in line with EU standards. The overall excise tax rate should be raised to over EUR 90 per 1,000 cigarettes to compensate for inflation and aim for a new EU standard of EUR 220. The current rate of just over EUR 93.5 is a notable increase from the rate of EUR 62 reported in the first national study of 2018 (Zubović et al. 2018), but it is still below the average for EU countries. The current excise tax calendar does not sufficiently raise the overall tax burden, and its predictability mitigates the impact of price increases.

Since 2018, there has been progress in designating funds for tobacco control programmes.

- › **Increasing transparency** in the distribution of the tobacco tax collected. There is still insufficient transparency in the distribution of tobacco excise revenue collected, as there is still no publicly available data on how this revenue is allocated or spent.
- › Although progress has been made in allocating funds to tobacco control programmes, including the establishment of a toll-free telephone helpline for smoking cessation and an online platform to help individuals to quit smoking, further efforts are needed. In particular, more focus should be directed towards **informing young people** about the harmful effects of tobacco products, especially alternative products like heated tobacco, which is becoming increasingly popular among the younger generation.

Considerable progress has been made in the field of tobacco tax research since 2018. However, further progress is still needed.

- › **Promote high-quality research:** Promoting high-quality tobacco taxation research among academics and researchers could provide valuable insights to policy makers, facilitating the implementation of more effective tax policies. The focus should be on selecting and utilising the highest-quality research data to significantly improve the continuity and transparency of public policy and action related to tobacco taxation.

References

- Barbić, T., Budak, J., Buturac, G., Mikulić, Rajh, E, Rašić, Slijepčević, S., Smilaj, D. & Vizek, M. (2019). Balkan Smugg – Smuggling of tobacco along the Balkan route (2019). Institute of Economics (EIZ), Zagreb. www.eizg.hr/UserDocsImages/projekti/Balkansmugg/BalkanSmugg-studija.pdf
- Customs Administration of the Republic of Serbia (2024). Confiscated illegal tobacco products, 2018-2023. Internal data provided upon request.
- Danas (2020). Increased production and export of cigarettes in Serbia even during the pandemic [in Serbian]. 6 August. www.danas.rs/vesti/ekonomija/u-srbiji-povecani-proizvodnja-i-izvoz-cigareta-i-u-vreme-pandemije/
- Đukić, M., Jovanović, O., Vladislavljević, M., Jolović, N. & Zubović, J. (2021). Study on tobacco tax avoidance and evasion in Serbia, 2019. Institute of Economic Sciences (IES), Belgrade, Serbia.
- European Commission (n.d.). Agriculture and rural development. Tobacco. https://agriculture.ec.europa.eu/farming/crop-productions-and-plant-based-products/tobacco_en
- Eurostat (2024). Smoking prevalence by sex. https://ec.europa.eu/eurostat/databrowser/view/sdg_03_30/default/table?lang=en
- Hristovska Mijovic, B., Spasova Mijovic, T., Trpkova-Nestorovska, M., Tashevska, B., Trenovski, B. & Kozeski, K. (2022). Tobacco farming and the effects of tobacco subsidies in North Macedonia. *Analytica*. Skopje, North Macedonia.
- IOPHOS – Institute of Public Health of Serbia ‘Dr. Milan Jovanović Batut’ (2023). Istraživanje ponašanja u vezi sa zdravljem dece školskog uzrasta u Rešublci Srbiji 2022. godine (Health behaviour in school-aged children survey – HBSC) – Rezultati o zastupljenosti upotrebe duvana. www.batut.org.rs/download/aktuelno/Ucestalost%20pusenja%20medju%20mladima.pdf
- IOPHOS – Institute of Public Health of Serbia ‘Dr. Milan Jovanović Batut’ (2024). Istraživanje o upotrebi duvanskih i srodnih proizvoda među populacijom starosti 18-64 godine u Srbiji [A survey on the use of tobacco and related products among the population aged 18-64 in Serbia]. www.batut.org.rs/download/aktuelno/18-24Istrazivanje2024.pdf
- Laverty, A. A., Vardavas, C. I. & Filippidis, F. T. (2021). Prevalence and reasons for use of heated tobacco products (HTP) in Europe: an analysis of Eurobarometer data in 28 countries. *The Lancet Regional Health – Europe*. Vol. 8. <https://doi.org/10.1016/j.lanepe.2021.100159>
- Luk, T. T., Weng, X., Wu, Y. S., Chan, H. L., Lau, C. Y., Kwong, A. C., Lai, V. W., Lam, T.H. & Wang, M.P. (2021). Association of heated tobacco product use with smoking cessation in Chinese cigarette smokers in Hong Kong: a prospective study. *Tobacco Control*, 30, 653–659. <https://doi.org/10.1136/tobaccocontrol-2020-055857>
- Mijatović, B. (2006). Tobacco and the Serbian state in the 19th century. Center for Liberal-Democratic Studies. www.clds.rs/newsite/Duvan-e.pdf
- Ministry of Finance of the Republic of Serbia (2024). Bilten javnih finansija za mesec decembar 2023 [Public Finance Bulletin for December 2023]. www.mfin.gov.rs/sr/aktivnosti-1/bilten-javnih-finansija-za-mesec-decembar-2023-1
- National Bank of Serbia (2024a). Macroeconomic Developments in Serbia. www.nbs.rs/export/sites/NBS_site/documents-eng/finansijska-stabilnost/presentation_invest.pdf

- National Bank of Serbia (2024b). Policy – Issues related to the inflow of foreign direct investment. www.nbs.rs/sr_RS/scripts/showcontent/index.html?id=19551
- Nerău, V., Ștefan, G., Geantă, M., Zaharia, R. & Volintiru, C. (2023). Country Report Romania. Institute Aspen Romania, Bucharest.
- Official Gazette of the Republic of Serbia (2010). Law on the Protection of the Population from Exposure to Tobacco Smoke. No. 30/2010. <https://assets.tobaccocontrolaws.org/uploads/legislation/Serbia/Serbia-SF-Law-2010.pdf>
- Official Gazette of the Republic of Serbia (2024). Law on Amendments to the Law on Excise Duties. No. 94/2024. https://www.neobilten.com/wp-content/uploads/2024/11/Zakon-o-izmenama-i-dopunama-Zakona-o-akcizama-SI.gl_94-24.pdf
- Plant Protection Directorate. (2024). Statement on yield estimation for illegal tobacco plantations. Unpublished data provided upon request.
- RAS – Development Agency of Serbia (2024). Serbia has attracted over €52 billion of inward foreign direct investment since 2007. <https://ras.gov.rs/en/invest-in-serbia/why-serbia/join-the-pool-of-the-successful>
- Seo, H. G., Xu, S. S., Li, G., Gravely, S., Quah, A. C. K., Lee, S., Lim, S., Cho, S. I., Kim, Y., Lee, E. S., Choi, Y. J., Miller, C. R., Goniewicz, M. L., O'Connor, R. J. & Fong, G. T. (2023). Reasons for initiation and regular use of heated tobacco products among current and former smokers in South Korea: Findings from the 2020 ITC Korea Survey. *International Journal of Environmental Research and Public Health*, 20(6), 4963. <https://doi.org/10.3390/ijerph20064963>
- Serbian Tobacco Administration (2024). Requested tobacco-related data. Unpublished data provided via email on 1 April 2024.
- Statistical Office of the Republic of Serbia (2021). The 2019 Serbian National Health Survey. <https://publikacije.stat.gov.rs/G2021/pdfE/G20216003.pdf>
- Statistical Office of the Republic of Serbia (2023). Statistical Yearbook 2023. <https://publikacije.stat.gov.rs/G2023/Pdf/G20232056.pdf>
- Statistical Office of the Republic of Serbia. (2024). Statistical Yearbook 2024. <https://publikacije.stat.gov.rs/G2024/Pdf/G20242057.pdf>
- Tobacconomics (2020). Cigarette Tax Scorecard (1st Edition). www.economicsforhealth.org/files/research/636/uic-tobacco-scorecard-report-eng-v7.1.pdf
- Tobacconomics (2024). Cigarette Tax Scorecard (3rd Edition). www.economicsforhealth.org/files/research/919/tobacco-scorecard-report-3rd-ed-eng-v5.0.pdf
- UNCTAD – United Nations Conference on Trade and Development (2023). World Investment Report 2023: Investing in sustainable energy for all. United Nations Publications, New York. https://unctad.org/system/files/official-document/wir2023_en.pdf
- UNDP (2024). Investment Case for Tobacco Control in Serbia. Secretariat of the WHO Framework Convention on Tobacco Control. Geneva: United Nations Development Programme and World Health Organization. www.undp.org/sites/g/files/zskgke326/files/2024-05/The%20investment%20case%20for%20tobacco%20control%20in%20Serbia%20-%20WEB.pdf
- WHO – World Health Organization (2021). WHO global report on trends in prevalence of tobacco use 2000-2025. Fourth edition. Geneva: World Health Organization. <https://iris.who.int/server/api/core/bitstreams/94b19096-c193-49c4-bcbb-653aa34ee29a/content>
- WHO – World Health Organization (2023). Top 50 tobacco growing countries. www.who.int/campaigns/world-no-tobacco-day/2023/top-50-tobacco-growing-countries

- Xu, S. S., Meng, G., Yan, M., Gravely, S., Quah, A. C. K., Ouimet, J., O'Connor, R.J., Sutanto, E., Yoshimi, I., Mochizuki, Y., Tabuchi, T. & Fong, G. T. (2020). Reasons for regularly using heated tobacco products among adult current and former smokers in Japan: Finding from 2018 ITC Japan Survey. *International Journal of Environmental Research and Public Health*, 17(21), 8030. doi:10.3390/ijerph17218030
- Zubović, J., Ljumović, I., Jovanović, O., Bodroža, D., Domazet, I., Vladisavljević, M. & Đukić, M. (2018). National Study – Serbia: Economics of Tobacco and Tobacco Taxation. Institute of Economic Sciences (IES), Belgrade. www.economicsforhealth.org/wpcontent/uploads/2020/01/National-study-Serbia.pdf
- Zubović, J., Jovanović, O., Đukić, M., Jolović, N. & Vladisavljević, M. (2020a). Adult Tobacco Consumption in Serbia, 2019. Institute of Economic Sciences (IES), Belgrade. [https://ien.bg.ac.rs/cms_upload/pages/files/8548_7_adult_tobacco_consumption_in_serbia_2019_\(2020\).pdf](https://ien.bg.ac.rs/cms_upload/pages/files/8548_7_adult_tobacco_consumption_in_serbia_2019_(2020).pdf)
- Zubović, J., Vladisavljević, M., Đukić, M., Jovanović, O. & Jolović, N. (2020b). Survey of Tobacco Products Consumption in Southeastern Europe (STC-SEE), Serbia 2019 [Report]. Institute of Economic Sciences, Belgrade. <http://dcs.ien.bg.ac.rs/id/eprint/61>

Appendix

SECTION I

Annex Table A / Best-selling hand-rolled (RYO) tobacco brands in Serbia, 2018-2023

Year	RYO tobacco	End-of-year price (RSD/kg)
2018	Pall Mall Blue (hand-rolled tobacco – L)	9,666.67
	George Karelias & Sons Hrt	11,200.00
	Drum Original	10,750.00
2019	Drum Original	11,000.00
	Pall Mall Blue (hand-rolled tobacco – L)	10,333.33
	Golden Virginia	14,400.00
2020	Drum Original	11,250.00
	Golden Virginia	14,800.00
	George Karelias & Sons Hrt	13,200.00
2021	Pall Mall Blue (hand-rolled tobacco – L)	11,666.67
	Pall Mall Red (hand-rolled tobacco – L)	11,666.67
	George Karelias & Sons Hrt	13,600.00
2022	Al Fakher Mix 1000	2,600.00
	George Karelias & Sons Hrt	14,000.00
	Pall Mall Blue (hand-rolled tobacco – L)	12,333.33
2023	George Karelias & Sons Hrt	14,800.00
	Camel (Original)	14,000.00
	Pall Mall Blue (hand-rolled tobacco – L)	13,000.00

Source: Serbian Tobacco Administration (2024)

Annex Table B / Best-selling brands of heated tobacco products (HTPs) in Serbia, 2018-2023

Year	HTPs	End-of-year price (RSD/kg of tobacco mixture)
2018	Heets From Marlboro (Amber)	44,262.33
	Heets From Marlboro (Yellow)	44,262.33
	Heets From Marlboro (Turquoise)	44,262.33
2019	Heets (Amber Label)	47,540.98
	Heets (Yellow Label)	47,540.98
	Heets (Sienna Label)	47,540.98
2020	Heets (Amber Selection)	50,819.68
	Heets (Sienna Selection)	50,819.68
	Heets (Yellow Selection)	50,819.68
2021	Heets (Amber Selection. S)	60,377.36
	Heets (Sienna Selection. S)	60,377.36
	Heets (Yellow Selection. S)	60,377.36
2022	Heets (Amber Selection. S)	62,264.15
	Heets (Purple Wave. S)	61,111.11
	Heets (Silver Selection)	62,264.15
2023	Heets (Purple Wave. S)	64,814.81
	Heets (Turquoise Selection. S)	64,814.81
	Heets (Silver Selection)	66,037.74

Source: Serbian Tobacco Administration (2024)

Annex Table C / Best-selling brands of chewing tobacco in Serbia and their retail prices, 2018-2023

Year	Chewing tobacco	RP (RSD/kg)
2018	General Cut Titanium White	55,555.56
	Oden's Double Mint Extreme White Portion 20g	31,500.00
	Oden's Cold Extreme White Portion 20g	31,500.00
2019	Oden's Double Mint Extreme White Portion 20g	31,500.00; 52,000.00
	Oden's Cold Extreme White Portion 20g	31,500.00; 52,000.00
	Thunder Frosted	68,181.82
2020	Oden's Cold Extreme White Portion 20g	52,000.00
	Oden's Double Mint Extreme White Portion 20g	52,000.00
	Thunder Frosted Slim	87,121.21
2021	Oden's Cold Extreme White Portion 20g	52,000.00
	Oden's Double Mint Extreme White Portion 20g	52,000.00
2022	/	/
	Oden's Cold Extreme White Portion 20g	52,000.00
	/	/
2023	/	/
	/	/
	/	/

Source: Serbian Tobacco Administration (2024)

Annex Table D / Best-selling pipe tobacco brands in Serbia and their retail prices, 2018-2023

Year	Pipe tobacco	End-of-year price (RSD/kg)
2018	Stanwell Vanilla	13,000.00
	Stanwell Mélange	13,000.00
	Clan Aromatic	12,000.00
2019	Stanwell Vanilla	13,000.00
	Clan Aromatic	12,000.00
	W.Ø. Larsen The Masters Blend Golden Dream	15,000.00
2020	Stanwell Vanilla	14,000.00
	Clan Aromatic	13,000.00
	Stanwell Mélange	14,000.00
2021	Stanwell Vanilla	15,000.00
	Clan Aromatic	14,000.00
	W.Ø. Larsen The Masters Blend Golden Dream	17,000.00
2022	Stanwell Vanilla	15,000.00
	Clan Aromatic	14,000.00
	Stanwell Mélange	15,000.00
2023	Stanwell Vanilla	17,000.00
	Clan Aromatic	16,000.00
	W.Ø. Larsen The Masters Blend Golden Dream	20,000.00

Source: Serbian Tobacco Administration (2024)

Annex Table E / Best-selling cigar brands in Serbia and their retail prices, 2018-2023

Year	Cigars	End-of-year price (RSD/piece)
2018	Toscanello Rosso Caffè	140.00
	Cafè Creme	52.00
	Toscanello'5	130.00
2019	Toscanello Rosso Caffè	140.00
	Toscanello'5	130.00
	Toscanello Rosso Caffè Macchiato	150.00
2020	Toscanello Rosso Caffè	140.00
	Toscanello'5	130.00
	Toscanello Rosso Caffè Macchiato	150.00
2021	Toscanello Rosso Caffè	140.00
	Toscanello'5	130.00
	Toscanello Rosso Caffè Macchiato	150.00
2022	Toscanello Rosso Caffè	150.00
	Toscanello Rosso Caffè Macchiato	160.00
	Toscanello'5	140.00
2023	Toscanello Rosso Caffè	160.00
	Toscanello Rosso Caffè Macchiato	170.00
	Toscanello'5	150.00

Source: Serbian Tobacco Administration (2024)

Annex Table F / Best-selling cigarillo brands in Serbia and their retail prices, 2018-2023

Year	Cigarillos	End-of-year price (RSD/piece)
2018	Moods Filter	65.00
	Moods	62.00
	Rillos Vanilla	80.00
2019	Moods Filter	73.00
	Moods	70.00
	Rillos Classic	80.00
2020	Moods Filter	73.00
	Moods	70.00
	Moods Silver	60.00
2021	Moods Filter	73.00
	Moods Filter 5	76.00
	Moods	70.00
2022	Moods Filter 5	80.00
	Moods Filter	75.00
	Moods 5	76.00
2023	Moods Filter 5	84.00
	Moods Filter	78.00
	Moods 5	80.00

Source: Serbian Tobacco Administration (2024)

SECTION II

Other major conclusions of the Study of Tobacco Tax Avoidance and Evasion in Serbia (Dukić et al. 2021) indicated that evasion was more prevalent in border municipalities, suggesting that proximity to a border was an important factor for illicit status. Older smokers (aged 55 and above) were more likely to consume illicit MC (6.9%) compared to younger smokers (0.7%). Similarly, the consumption of illicit RYO tobacco was higher among smokers aged 55 and above (98.6%) compared to younger smokers (71.6%). Male smokers were more likely to use RYO tobacco packs without appropriate health warnings than female smokers (65.2% vs. 34.5%, respectively), and smokers in rural areas were more likely than those in urban areas (56.9% vs. 43.1%, respectively) to do the same. The proportion of illicit MC and RYO tobacco packs among smokers with a monthly household income below EUR 200 was 10.1% and 93.8%, respectively, which was considerably higher than the average.

Photo 1 / A photo of an MC smoker's last-purchased pack



Source: Zubović et al. (2020b)

Photo 2 / Photo of a respondent's last-purchased package of RYO tobacco



Source: Zubović et al. (2020b)

IMPRESSUM

Herausgeber, Verleger, Eigentümer und Hersteller:
Verein „Wiener Institut für Internationale Wirtschaftsvergleiche“ (wiiw),
Wien 6, Rahlgasse 3

ZVR-Zahl: 329995655

Postanschrift: A 1060 Wien, Rahlgasse 3, Tel: [+431] 533 66 10, Telefax: [+431] 533 66 10 50
Internet Homepage: www.wiiw.ac.at

Nachdruck nur auszugsweise und mit genauer Quellenangabe gestattet.

Offenlegung nach § 25 Mediengesetz: Medieninhaber (Verleger): Verein "Wiener Institut für Internationale Wirtschaftsvergleiche", A 1060 Wien, Rahlgasse 3. Vereinszweck: Analyse der wirtschaftlichen Entwicklung der zentral- und osteuropäischen Länder sowie anderer Transformationswirtschaften sowohl mittels empirischer als auch theoretischer Studien und ihre Veröffentlichung; Erbringung von Beratungsleistungen für Regierungs- und Verwaltungsstellen, Firmen und Institutionen.

