

COUNTRY STUDY:
CROATIA





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Key Findings

- Out of 33 percent of the adult smoker population in Croatia, 92 percent buy tobacco products at authorized retailers. 79 percent smoke industrially manufactured cigarettes and 27 percent buy cut tobacco to roll and make their own cigarettes.
- Nine out of ten buyers on the gray market buy cut tobacco. This makes cut tobacco a major illicit tobacco product in Croatia.
- Gray market cut tobacco is a substitute for the industrially manufactured cigarettes on the legal market.
- Croatian smokers shifted to a gray market of tobacco products due to an increase in cigarette prices (37 percent) and the beginning of the economic crisis (35 percent). For 92 percent of them, the main reason for buying tobacco products on the gray market is their favorable price.
- Two thirds of buyers report that they would be willing to reduce their consumption of gray market cut tobacco if the price of legal cigarettes decreased. Only the affordability of legal tobacco products would motivate smokers to exit the gray market. Otherwise, as long as the gray market exists, it will remain the preferred place of purchase for the majority of smokers involved in illicit trade in Croatia.
- Seven out of ten buyers on the gray market would look for a new place of purchase within the gray market, if, for some reason, they could no longer buy illicit tobacco products at their usual place.
- The usual points of sale on the gray market are friends, acquaintances, and resellers on the street. Since the vast majority of all smokers make their purchases in the country, and only 7 percent abroad, it can be concluded that the tobacco gray market is functioning well in Croatia.
- About half of all buyers report that the availability of both cigarettes and cut tobacco on the gray market has not changed in the last two years. However, the share of smokers who rated the availability of cigarettes as “decreasing” is overpassing the percentage of buyers sharing the same opinion regarding cut tobacco. Therefore, while there are some indications of a downward trend in the supply of illicit cigarettes in Croatia, there seem to be no signs of a shrinking supply of cut tobacco on the gray market.
- Since Croatia is a producer and a net exporter of tobacco products, 93 percent of smokers buy tobacco products in Croatia. Recently, increasing exports to Germany, which holds 38 percent of Croatian tobacco exports, confirm that Croatian main tobacco trading partners come from the EU.
- Cigarettes account for 58 percent of total Croatian tobacco export. In addition, tobacco extracts and essences account for 22 percent and unmanufactured tobacco for 20 percent of export.

- Since gray market and undeclared work are closely connected, an estimate was made regarding the supply and demand of undeclared work in Croatia. Over 8 percent of respondents bought goods they assumed were produced by undeclared work. More than 4 percent received payment for undeclared work in the last 12 months. A younger, better educated, and high-income population is more prone to participate in both the supply and the demand side of undeclared work in Croatia.
- For the majority of Croatian citizens (about 80 percent), transactions on the tobacco product gray market are unacceptable malpractices. In contrast, buying cut tobacco directly from farmers is considered acceptable for 75 percent of citizens. Buying tobacco products on the gray market is not acceptable for 63 percent of citizens.
- Seven out of ten individuals in Croatia agree that gray market tobacco products cause substantial damages to the state budget and that tobacco product smuggling is an integral part of organized crime.

1 Introduction

Illicit trade, gray market, and tobacco smuggling have been present in the Balkan region for a long time. The research project **Illegal Trade of Tobacco Products: Smuggling as Experienced along the Balkan Route (BalkanSmugg)**, funded by PMI IMPACT and implemented by the Institute of Economics, Zagreb from July 2017 to September 2019, assesses the illegal trade of cigarettes and other tobacco products in seven countries along the Balkan smuggling route.

The specific objective of the project is to produce a strong evidence base on the illegal trade of tobacco in Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, North Macedonia, and Kosovo. Therefore, the core of this research is represented by a survey assessment of smokers' attitudes and practices of buying cigarettes on the gray market and citizens' opinion regarding the illegal trade of cigarettes and other tobacco products. In 2018 we conducted a survey of 3,000 respondents per country, totaling 21,000 respondents net in the region.

BalkanSmugg Country Study: Croatia presents the key findings regarding Croatia as one of the countries of interest. It sheds light on smokers' habits and practices in buying cigarettes and cut tobacco, including also the experience of purchasing tobacco products on the gray market. The insight into the characteristics of the gray market, the typical purchase "package", and how smokers rated the quality and accessibility of products, offer valuable first-hand information.

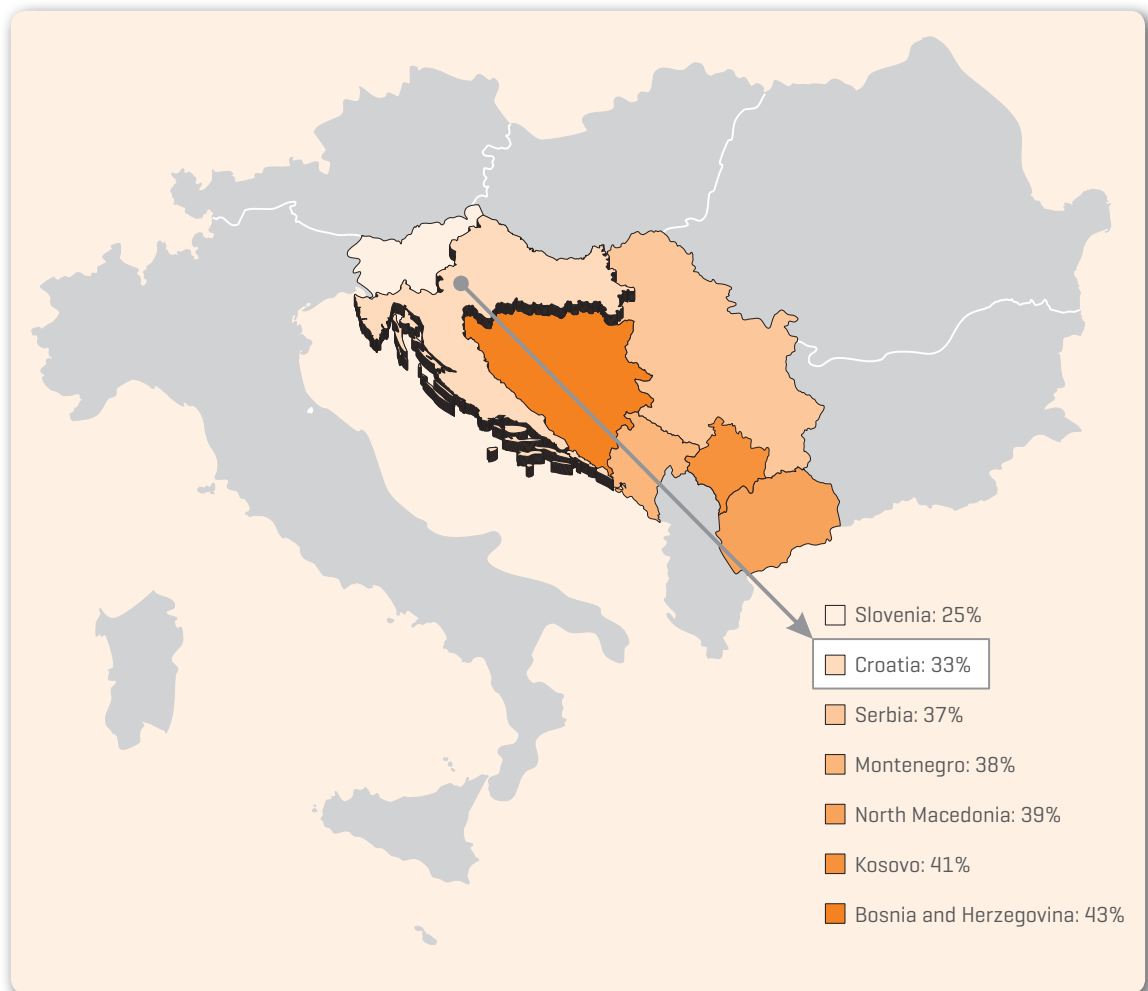
The study explores the public opinion on acceptable behavior related to the illicit trade of cigarettes, tobacco products, and perceptions regarding their negative effects, making the BalkanSmugg project the first all-encompassing study of the black market illegal trade in cigarettes and other tobacco products in the Balkan region that tackles the problem from both citizens' and tobacco consumers' point of view.

The results presented for Croatia are also compared with other observed countries in order to frame the regional context of the findings.

We hope that policy makers and stakeholders involved in this project will find the results inspiring and beneficial in the fight against illegal trade. The ultimate purpose of this study is to raise awareness about the harmfulness of illegal trade of cigarettes and other tobacco products in Croatia.

2 Smoking Habits

Figure 2.1 **Smoking prevalence, by country**

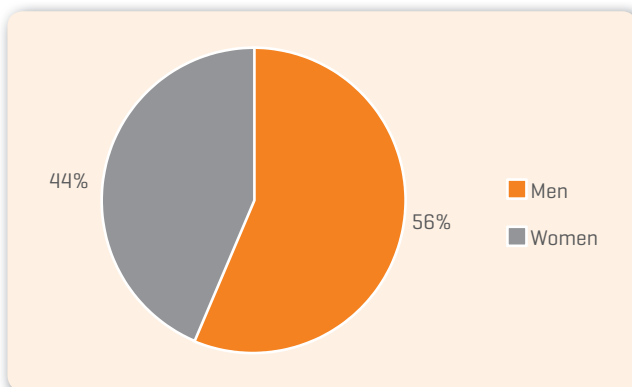


Source: Survey data.

**Smoking prevalence in
Croatia is 33 percent.**

- Survey data revealed that smokers constitute one-third of the adult population in Croatia (Figure 2.1). Exactly 33 percent of surveyed individuals aged 18+ declared themselves as smokers, which is slightly below the average smoking prevalence of all analyzed countries in the region (36 percent).
- Smoking prevalence in Croatia is almost equally distributed among adult men and women (Figure 2.2).
- The most popular tobacco products in Croatia are industrially manufactured cigarettes (Figure 2.3). However, every fourth smoker uses cut tobacco to roll their own cigarettes. Other tobacco products, such as cigars, cigarillos, pipes, etc., are used by only 5 percent of smokers.
- Interestingly, **the share of cut tobacco smokers in Croatia (27 percent) is far above the regional average (15 percent)**.

Figure 2.2 **Smoking prevalence by gender in Croatia**



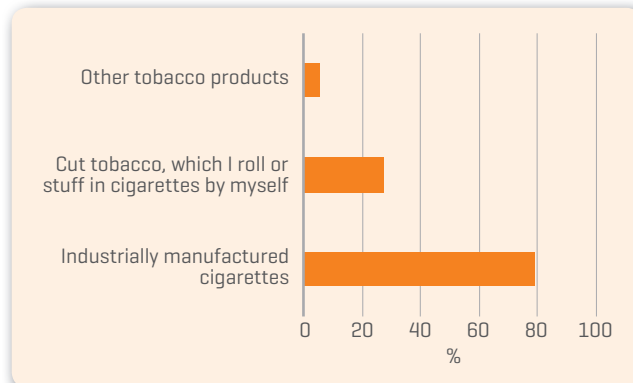
Source: Survey data.

When compared with women, men smoke more tobacco products.

Almost 80 percent of smokers use industrially manufactured cigarettes.

On average, when compared with analyzed countries, more smokers use cut tobacco in Croatia.

Figure 2.3 **Smoking by types of tobacco products**



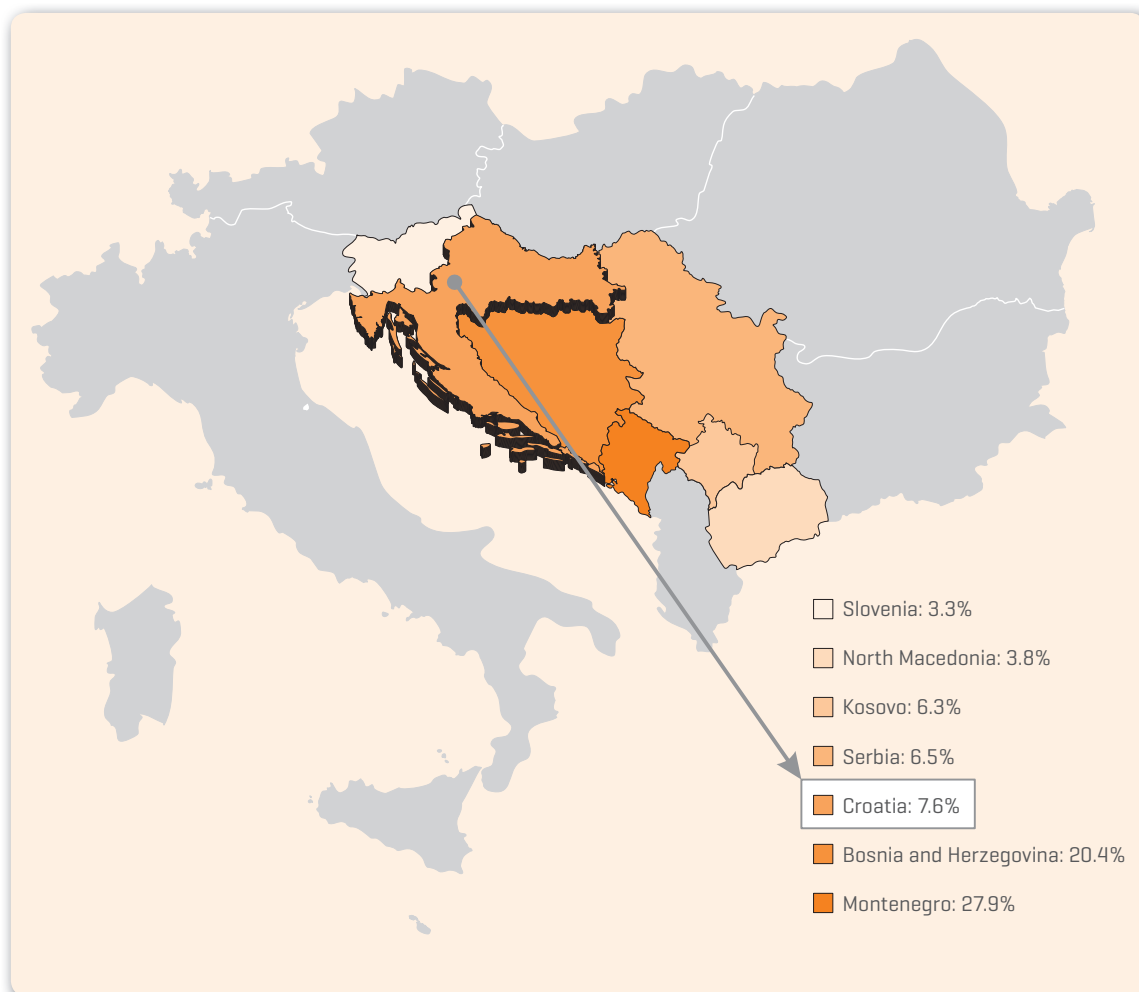
Notes: Multiple answers. In percentage of smokers.
Source: Survey data.

3 Buying Habits: Legal or Gray Markets

- Smokers in Croatia predominantly buy tobacco products at authorized retailers. Slightly less than 8 percent of smokers buy their tobacco products on the gray market, which is below the regional average of 11 percent [Figure 3.1].
- **Cut tobacco is the main product bought on the gray market.** Almost 90 percent of smokers who buy their tobacco on the gray market use unofficial suppliers to purchase cut tobacco, and 16 percent of them buy industrially manufactured cigarettes [Figure 3.2].
- The two main channels of the Croatian gray market, where smokers predominantly buy illicit tobacco products, are friends and acquaintances [41 percent] and resellers on the street [38 percent] [Figure 3.3].
- Buying on the gray market is related to the price competitiveness of tobacco products otherwise available in regular stores. Croatian smokers shifted to a gray market of tobacco products due to an increase in cigarette prices [37 percent], the beginning of the economic crisis [35 percent], and due to retirement or unemployment [25 percent], i.e. for purely economic reasons [Figure 3.4].
- When explaining why they buy tobacco products on the gray market, 92 percent of smokers report **a more favorable price as the main reason behind their purchase.**

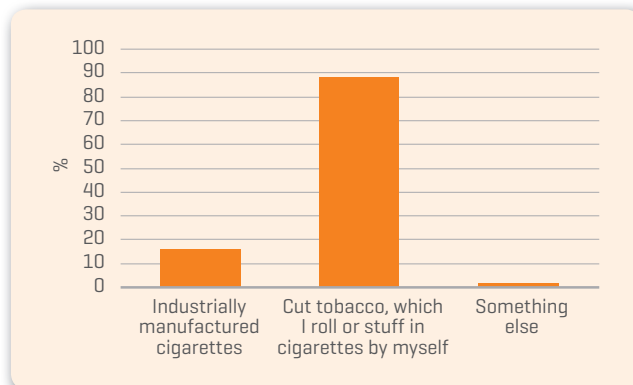
Eight percent of smokers are buying on the gray market.

Figure 3.1 **Share of smokers buying on the gray market, by country**



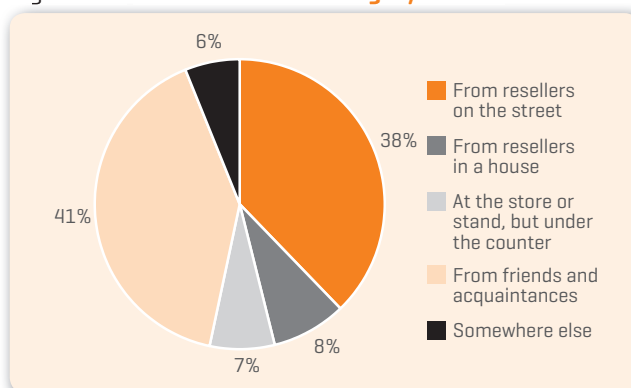
Source: Survey data.

Figure 3.2 Tobacco products from the gray market



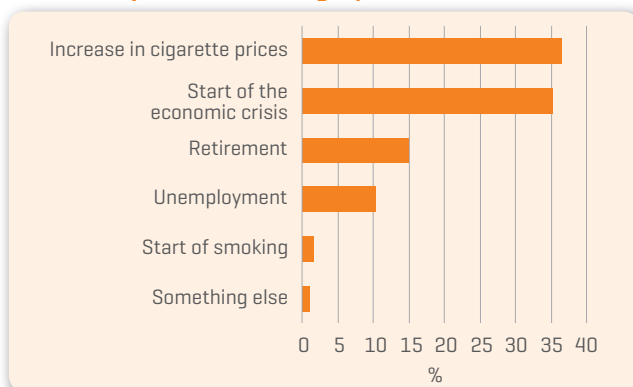
Note: Multiple answers.
Source: Survey data.

Figure 3.3 Points of sale on the gray market



Source: Survey data.

Figure 3.4 Reasons why smokers buy tobacco products on the gray market



Source: Survey data.

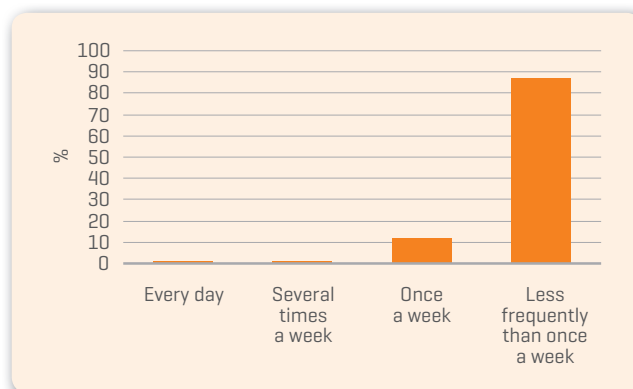
4

Availability of Cigarettes and Cut Tobacco on the Gray Market

- The majority of smokers buy on the gray market once a week or less frequently [Figure 4.1].
- Recent trends note a difference in the availability of cigarettes and cut tobacco on the gray market: more buyers noted the declining availability of cigarettes on the gray market, when compared to the availability of cut tobacco [Figure 4.2].
- **Every third smoker rates cigarettes as “less available” on the gray market today** compared to two years ago, and almost half of smokers see no changes in their availability on the gray market for the same period.
- An increased availability of cigarettes on the gray market today, compared to two years ago, is more frequently observed in the region than in Croatia.
- **Every fifth smoker rates cut tobacco as “less available” on the gray market today** compared to two years ago, and almost two-thirds of smokers rate its availability at the same level as two years ago.
- Similar to the availability of cigarettes, an increased availability of cut tobacco on the gray market is less frequently observed in Croatia than in the region.

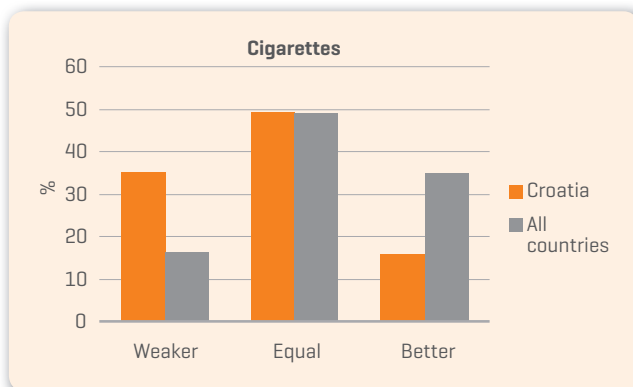
A perceived trend of decreasing availability of tobacco products on the gray market in Croatia is more evident for cigarettes than for cut tobacco.

Figure 4.1 **Frequency of buying on the gray market**



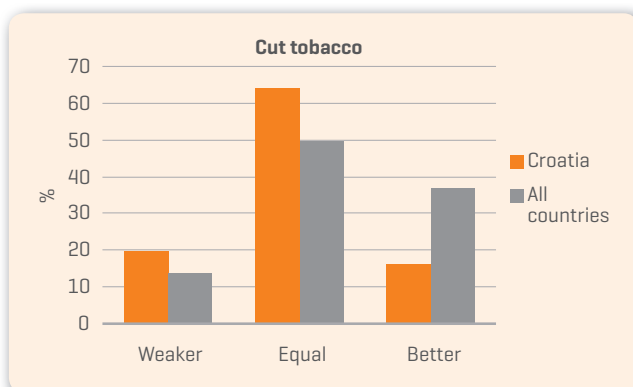
Source: Survey data.

Figure 4.2 **Trends in the availability of tobacco products on the gray market**



Compared to two years ago:

35 percent of smokers state that the availability of cigarettes on the gray market dropped.



20 percent of smokers state that the availability of cut tobacco on the gray market dropped.

The number of buyers who perceived an increased availability of illicit tobacco products is two times higher in the region than in Croatia.

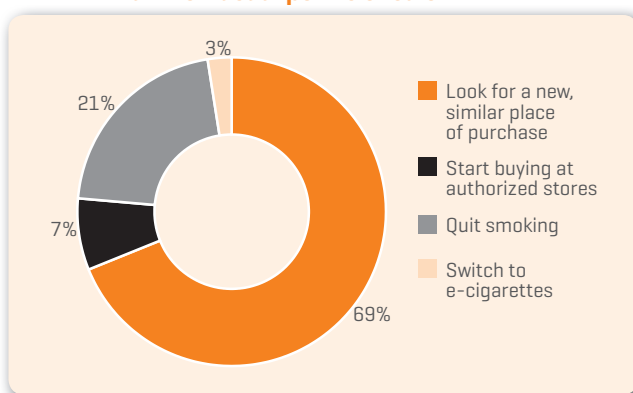
Note: Compared to two years ago.
Source: Survey data.

5 Exiting the Gray Market

- Buyers on the gray market were asked what they would do if they could no longer buy tobacco products at their usual place [Figure 5.1]. Almost 70 percent would look for a new place of purchase within the gray market, which means that as long as the gray market exists, it will remain the preferred place of purchase for the majority of smokers involved in illicit trade in Croatia.
- It is interesting to note that smokers are three times more likely [21 percent] to stop smoking instead of making a shift to a legal market of tobacco products [7 percent].
- Main motivational factors that influence the exit from the gray market are predominantly related to economic reasons: **40 percent of buyers would exit the gray market in case of a cigarette price decrease on the legal market;** while 38 percent report that they would exit the gray market if their living standard improved. Additional one-third of smokers buying on the gray market report that they would stop buying illicit tobacco products only if they made a decision to quit smoking.
- Introducing severe punishments for buyers would motivate only 2 percent of smokers to stop buying on the gray market [Figure 5.2].

70 percent of buyers on the gray market would remain loyal to illicit points of sale.

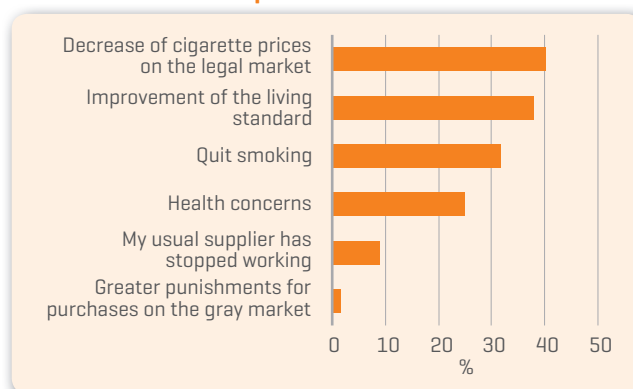
Figure 5.1 Preferred alternatives for smokers who could no longer buy illicit tobacco products at their usual points of sale



If the usual place of illicit purchase becomes unavailable, only 7 percent of smokers report the willingness to switch to a legal market.

Source: Survey data.

Figure 5.2 Motivation for exiting the gray market of tobacco products



The affordability of legal tobacco products would motivate smokers to exit the gray market.

Note: Multiple answers.
Source: Survey data.

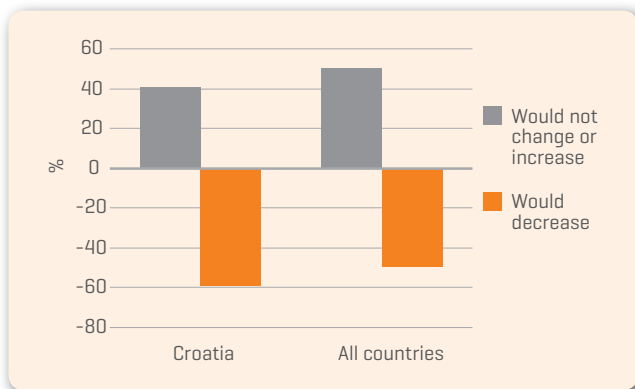
6

Price Sensitivity of Illicit Tobacco Product Consumption

- If the price of cigarettes became equal on the legal and gray market, almost 60 percent of buyers report that they would decrease their consumption of illicit cigarettes (Figure 6.1).
- Due to lower prices of legal cigarettes, a decreased consumption of cigarettes on the gray market is more evident in Croatia when compared with the region.
- 66 percent of buyers state that they would reduce their consumption of cut tobacco on the gray market if the price of legal cigarettes decreased (Figure 6.2).
- **Smokers in Croatia tend to substitute legal cigarettes with cheaper gray market cut tobacco more than with illicit cigarettes.**

Consumption of illicit tobacco products is sensitive to price changes of legally purchased cigarettes.

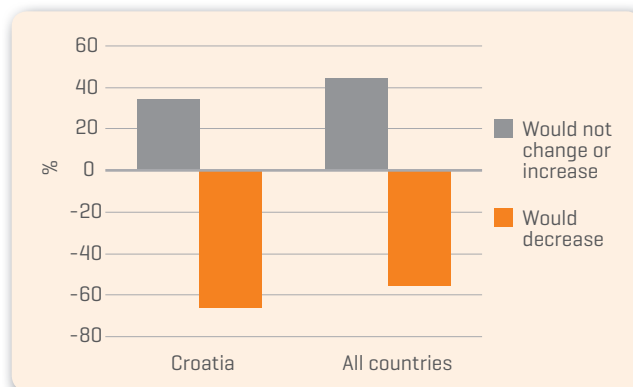
Figure 6.1 **Price sensitivity of illicit cigarettes**



Source: Survey data.

Almost 60 percent of consumers would decrease the consumption of illicit cigarettes if the price of legally purchased cigarettes decreased and became equal to the price of cigarettes bought on the gray market.

Figure 6.2 **Consumption of illegal cut tobacco**



Source: Survey data.

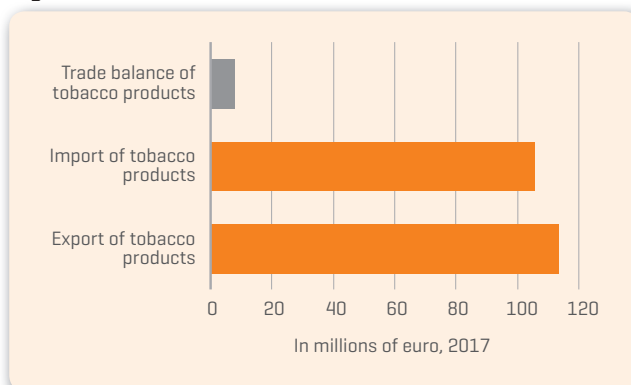
Almost two-thirds of consumers would decrease the consumption of illicit cut tobacco if the price of legally purchased cigarettes decreased and became equal to the price of cut tobacco on the gray market.

7 International Trade of Tobacco Products

Croatia is a producer and a net exporter of tobacco products. While the export of cigarettes accounts for 58 percent of total Croatian tobacco exports, unmanufactured tobacco exports increased by 20 percent.

- Survey results indicate that **Croatian smokers mainly purchase tobacco products at selling points within the country [93 percent]**. Most of the smokers who purchase abroad prefer buying in neighboring countries: Bosnia and Herzegovina [68 percent], followed by Serbia [12 percent], and Slovenia [6 percent].
- Croatia has a rich tradition in the production and export of tobacco products. In 2017, Croatia exported EUR 113.7 million of tobacco products and the trade surplus was EUR 7.8 million [Figure 7.1].
- From 2001 onwards, **the share of cigarettes dropped significantly**—from 90 percent to 58 percent of Croatian tobacco exports. However, cigarettes are still the main tobacco product export, followed by tobacco extracts, essences, and unmanufactured tobacco [Figure 7.2].

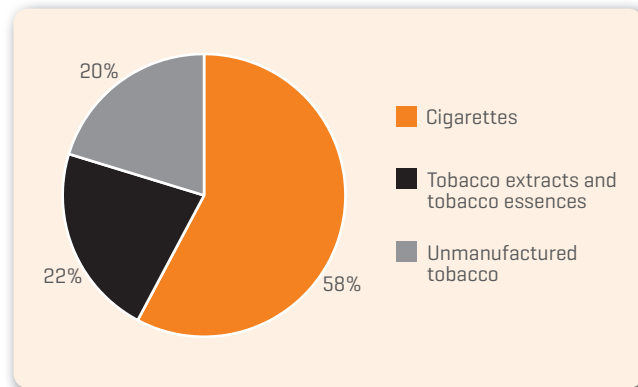
Figure 7.1 **Croatian tobacco trade**



Source: Authors' calculations based on UN Comtrade and ITC statistics.

Croatian trade balance of tobacco products is positive.

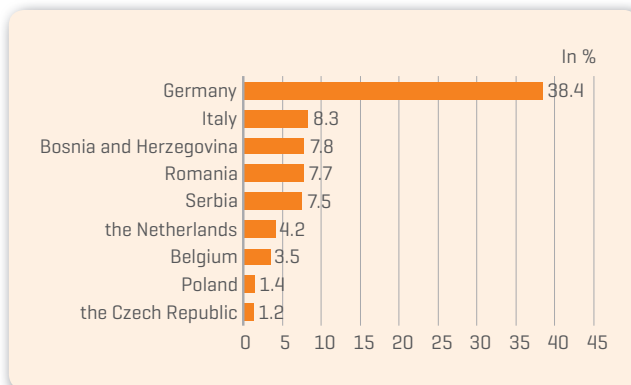
Figure 7.2 Exports by types of tobacco products, 2017



Source: Authors' calculations based on UN Comtrade and ITC statistics.

- **The EU market is the most important growing export destination for Croatian tobacco products.** In 2017, Croatia exported 77 percent of its total tobacco export to EU countries and one-fifth to the countries in the region. Germany stands as the leading destination country for Croatian tobacco exports with over 38 percent of total tobacco exports in 2017 [Figure 7.3].

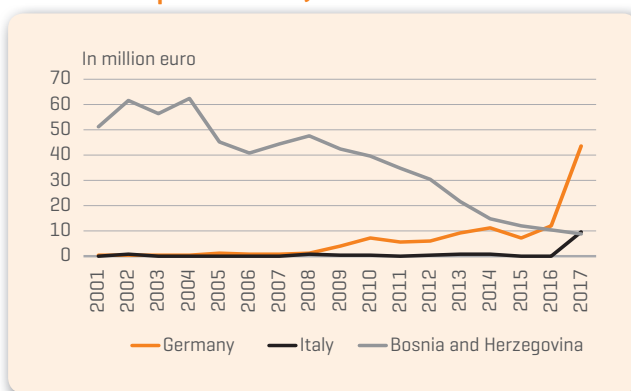
Figure 7.3 Croatian tobacco exports by markets, 2017



Germany is the main, and rapidly growing, export destination for Croatian tobacco exports.

Source: Authors' calculations based on UN Comtrade and ITC statistics.

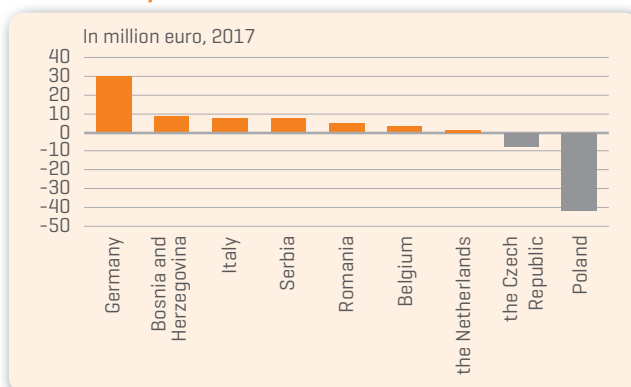
Figure 7.4 **Croatian tobacco exports to leading export markets, trends 2001–2017**



Source: Authors' calculations based on UN Comtrade and ITC statistics.

- While exports to Bosnia and Herzegovina are declining, exports to Germany and Italy have been sharply increasing since 2016 [Figure 7.4].
- Croatia has the highest positive trade balance of EUR 30 million with Germany. The negative trade balance is observed with Poland and the Czech Republic [Figure 7.5]. Namely, these two countries, occupying the 7th and 8th rank in Croatian tobacco exports, are the top tobacco import countries in 2017.

Figure 7.5 **Croatian trade balance in tobacco products, by countries**



Source: Authors' calculations based on UN Comtrade and ITC statistics.

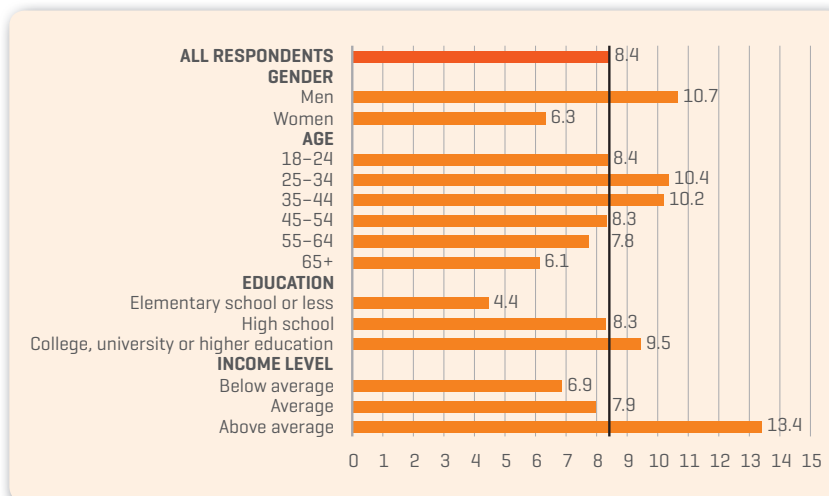
Tobacco trade with countries in the region is becoming less important.

8 Undeclared Work

Over 4 percent of adult Croatian citizens received income from undeclared work in the last 12 months, while 8 percent purchased goods they believe were produced by undeclared work.

- When seen through the prism of tax evasion, the tobacco gray market is a part of the shadow economy due to undeclared work. Smugglers, sellers, and resellers of tobacco products on the gray market earn unreported income due to undeclared work.
- The **extent of undeclared work in Croatia** is assessed through the demand and supply side of the survey.
- Over 8 percent of adult population in Croatia report to have bought products, whose **income origin**, they believe, **was not fully reported** to tax or social security institutions [Figure 8.1].
- Propensity to acquire products delivered by individuals engaged in undeclared work is significantly higher for men [10.7 percent vs. 6.3 percent recorded for women]. Demand for products delivered by individuals engaged in undeclared work is less pronounced for older population.
- Contrary to previous studies, where undeclared work is usually found to act as a social buffer, survey results for Croatia indicate that **higher educated individuals, with an above-average income, are more likely to acquire goods and services related to undeclared work.**

Figure 8.1 **Buyers of products that might be the result of undeclared work**



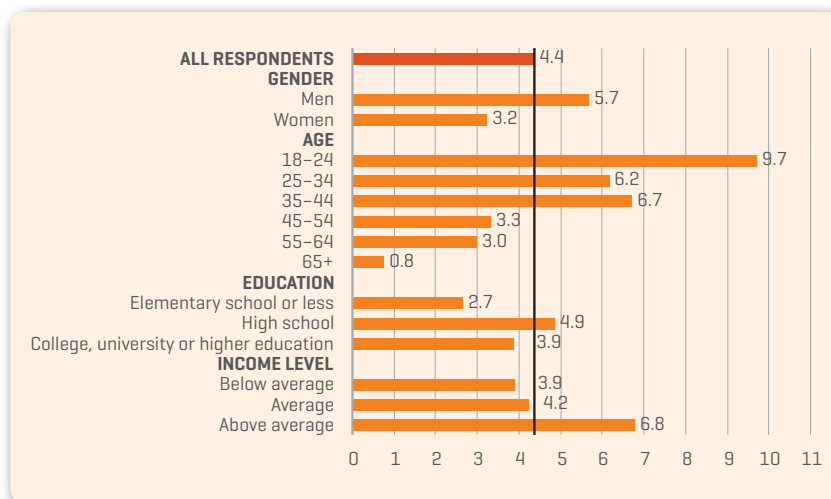
Buyers of products related to undeclared work are higher educated and wealthier individuals.

Note: The percentage of individuals who acquired a product they believe originated from undeclared work.

Source: Survey data.

- According to self-declared statements of survey respondents, more than **4 percent of the Croatian population over the age of 18 acquired extra income through undeclared labor** activity in the past 12 months (Figure 8.2).
- As in the case of the demand side of undeclared work, the tendency to engage in undeclared labor is more pronounced for men and the population under the age of 45, as well as for the population receiving an above-average income.
- Participation of individuals with college, university or higher education in undeclared labor is below average despite their more intensive participation in the demand for goods and services delivered by the undeclared work sector.

Figure 8.2 **Income from undeclared work activities in the past 12 months**



Youth population is the main supplier of undeclared work in Croatia. One out of ten individuals aged 18-24 received compensation for undeclared work in the last 12 months.

Note: Individuals who, in addition to their regular labor activity, earned extra income through undeclared activities in the past 12 months.

Source: Survey data.

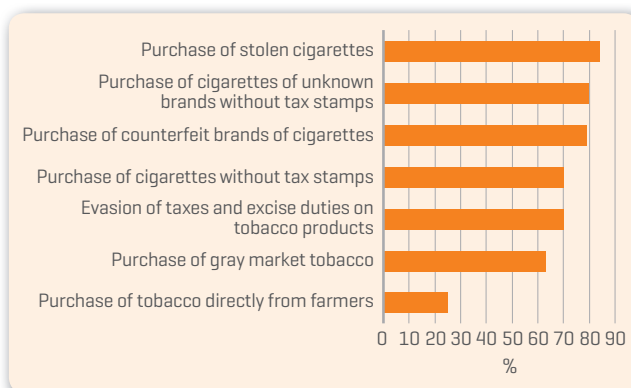
9

Unacceptability of Certain Practices in Illicit Tobacco Trade

- The majority of Croatian citizens, around 80 percent, think that it is mostly unacceptable or completely **unacceptable to purchase stolen cigarettes**, cigarettes of **unknown brands** without tax stamps, and **counterfeit** brands of cigarettes [Figure 9.1]. Activities on the tobacco product gray market, which are related to other forms of crime, are less acceptable practices.
- Croatian citizens also have a negative public opinion, although to a lesser extent [70 percent], toward the malpractice of purchasing cigarettes without tax stamps, or toward evading taxes and excise duties on tobacco products.
- According to the opinion of 63 percent of citizens, purchasing tobacco products on the gray market is not acceptable.
- On the other hand, two-thirds of Croatian citizens think that **it is acceptable to buy tobacco directly from farmers**. Considering all analyzed practices, the Croatian public positively views the tobacco buyers' connection with farmers.

There is an overall **negative public opinion** regarding illicit tobacco trade.

Figure 9.1 **Unacceptability of certain practices in illicit tobacco trade**



Source: Survey data.

Purchasing tobacco products on the gray market is not acceptable for 63 percent of citizens.

Twenty-five percent approve buying tobacco products directly from farmers.

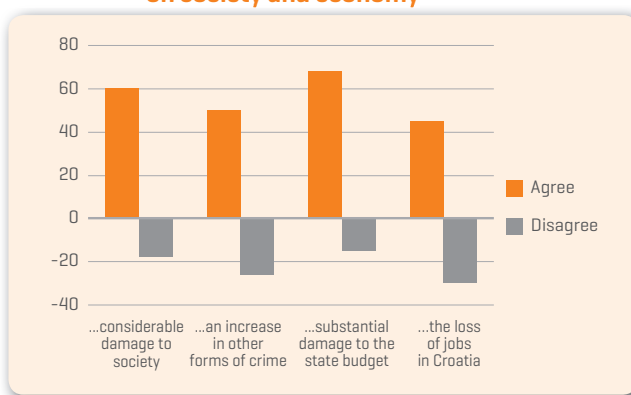
10

Public Perceptions and Opinions about the Tobacco Gray Market

- More than 70 percent of Croatian citizens agree that the tobacco gray market causes **substantial damages to the state budget** and about 60 percent of them think that it also causes considerable damages to society (Figure 10.1).
- Every second respondent recognizes that there is a link between the tobacco gray market and other forms of crime and believes **that the tobacco gray market causes an increase in other forms of crime.**
- Less than half of Croatian citizens, 45 percent of them, agree that the tobacco gray market is responsible for job losses in Croatia.
- The majority of respondents in Croatia (72 percent) have a negative perception regarding tobacco product smuggling and believe it represents an integral part of organized crime (Figure 10.2).

In general, the majority of Croatian citizens recognize the negative effects of the tobacco gray market.

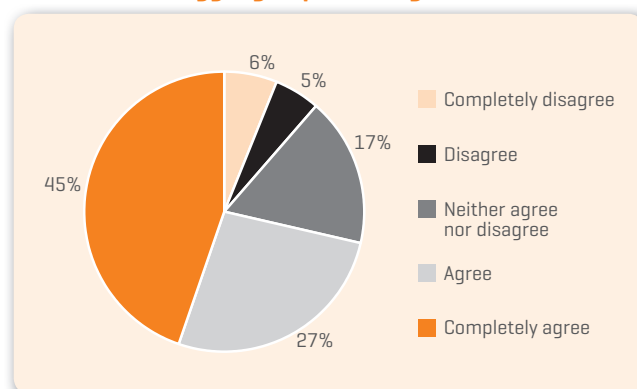
Figure 10.1 Respondents' perception regarding tobacco gray market's impact on society and economy



Source: Survey data.

Lost revenues in the state budget and lost jobs due to the gray market

Figure 10.2 Respondents' views of cigarette and tobacco smuggling as part of organized crime



Almost three-quarters of Croatian citizens think that tobacco product smuggling is an organized crime.

Source: Survey data.

Appendix

Table A1 **Survey details**

Survey period	February–April 2018
Target population	Resident population of Croatia: age group 18+, with smokers quota proportional to the country’s smoking prevalence rate [38.0 percent for men and 24.5 percent for women] http://www.tobaccoatlas.org/country-data/croatia/
Sample design	Random sampling Nationally representative sample
Quality control	Data collection quality control was done by re-contacting the respondents and cross-checking answers to selected questions with answers from the initial interview. A minimum of 25 percent of questionnaires were controlled per interviewer. Logic checks were conducted on the final dataset.
Net sample size	3,000
Response rate	7.8 percent
Method	CATI [Computer Assisted Telephone Interviewing]

