



Bulk Tobacco Study 2015

Assessing the Illicit Trade and Consumption of Cut Tobacco in 15 Markets in Europe

December 2016



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Crime&tech s.r.l.

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INTRODUCTION

This study focuses on the Bulk tobacco market in 15 countries in Europe.

'Bulk tobacco' is a type of illicit cut tobacco usually sold in unbranded bags outside the legitimate channels. The purpose of the study is to analyse the amount and the dynamics of the consumption of this and other illicit cut tobacco products in a region particularly affected by this issue.

Two main factors determine the objectives of this study. In recent years, tobacco consumers have increasingly looked for cost effective alternatives to traditional products.¹ As a consequence, there is a concern that many consumers have turned to bulk tobacco, giving further opportunities to the criminals that operate in the illicit tobacco market.² This study intends to remedy the gap in knowledge about this issue by providing reliable estimates of the extensiveness of the market. Indeed, a specific focus is necessary because of the different characteristics and supply-chain requirements that distinguish bulk tobacco from other illicit tobacco products.³

The key objective of this study is the estimation of illicit cut tobacco consumption. The two main questions addressed are how much illicit cut tobacco is consumed, and where. The results furnish a comprehensive picture of this issue in the region, highlighting the similarities and the connections among the 15 countries analysed.

This study relies on a consistent methodology developed by an assessment of the data and information available. Full details about the methodology employed to provide all the figures obtained and the data sources used are described in the Methodological Appendix of this report. The study also provides an analysis of some potential drivers of illicit cut tobacco consumption, i.e. affordability, price differentials, and availability of the raw tobacco. The study concludes with an assessment of the current regulation and control measures developed in all the countries, assuming that weak controls may facilitate the development of the illicit market.

The countries covered by this study are Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Kosovo, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia and the former Yugoslav Republic of Macedonia.

This study has been carried out by Crime&tech srl for British American Tobacco plc, Imperial Tobacco Limited, JT International SA and Philip Morris International Management SA.

Crime&tech srl (www.crimetech.it) is a spin-off company owned by the Università Cattolica del Sacro Cuore and based on the expertise of the independent academic centre Transcrime (www.transcrime.it).

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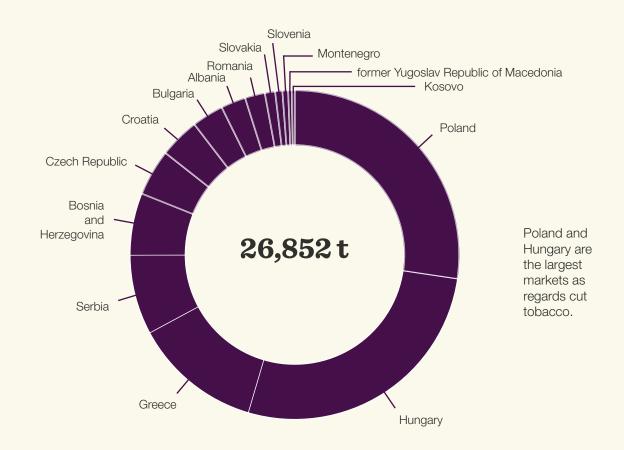
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KEY FINDINGS

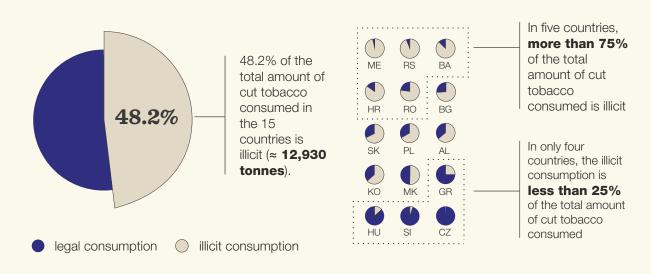


EXECUTIVE SUMMARY

26,852 TONNES IS THE ESTIMATED ANNUAL TOTAL CONSUMPTION OF CUT TOBACCO IN THE 15 COUNTRIES CONSIDERED

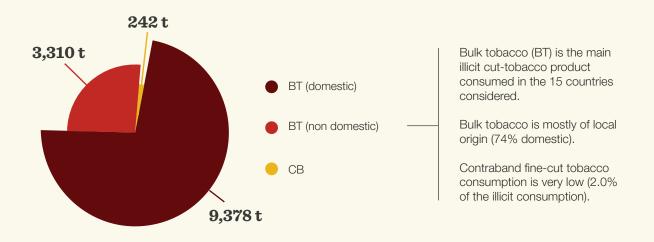


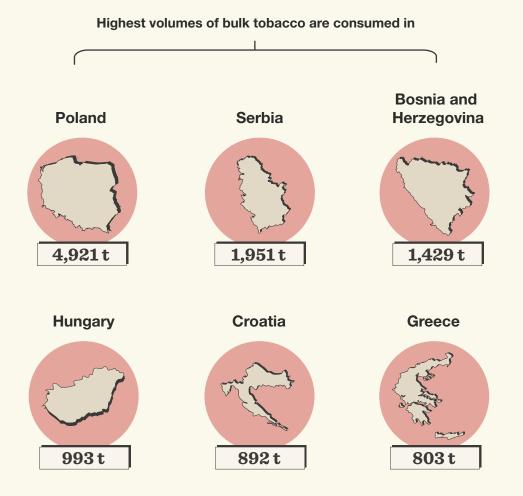
ILLICIT CONSUMPTION OF CUT TOBACCO IS WIDESPREAD



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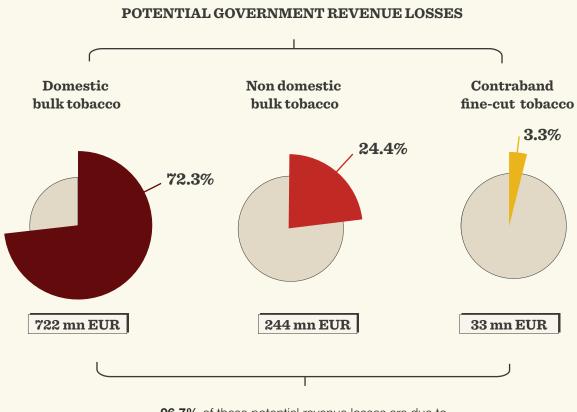
AMONG THE TYPES OF ILLICIT CUT TOBACCO, BULK TOBACCO IS SIGNIFICANTLY MORE CONSUMED THAN CONTRABAND CUT TOBACCO





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THE ESTIMATED POTENTIAL GOVERNMENT REVENUE LOSSES DUE TO THE CONSUMPTION OF ILLICIT CUT TOBACCO AMOUNT TO ABOUT 1 BN EUR



96.7% of these potential revenue losses are due to bulk tobacco consumption.

AVAILABILITY, AFFORDABILITY AND PRICE DIFFERENTIALS MAY INFLUENCE THE CONSUMPTION OF ILLICIT CUT TOBACCO

Three main drivers may positively or negatively impact on the illicit consumption of cut tobacco:



Less affordable legal fine-cut tobacco can encourage the consumption of illicit cut tobacco products.



High levels of tobacco production can increase the availability of bulk tobacco within the country and facilitate its outflows to neighbouring countries.



Large differences among the prices of legal and illicit cut tobacco within and among the countries can influence illicit consumption.

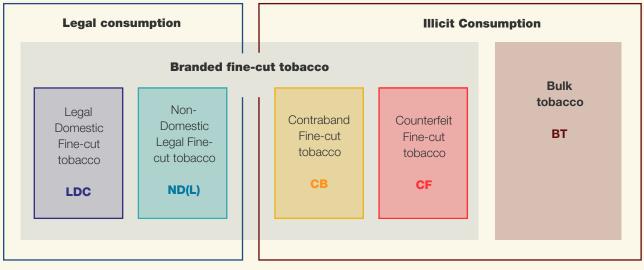
CUT TOBACCO DEFINITIONS

Cut tobacco includes any type of cut or shredded tobacco, usually sold in pouches or bags and smoked in handcrafted cigarettes.

The different types of cut tobacco are:

- Legal Domestic fine-cut tobacco (LDC): branded fine-cut tobacco that is legally sold in the same country in which it is consumed. LDC is a legal tobacco product.
- Non-domestic fine-cut tobacco (ND): branded fine-cut tobacco that originates from a market different from the one in which it is consumed. It is further distinguished among:
 - Non-domestic Legal fine-cut tobacco (ND(L)): Products that are brought into the market by consumers within the legal allowances (for example during a cross-border trip). ND(L) is a legal tobacco product.

- Contraband fine-cut tobacco (CB): Genuine products that have been either bought in a low-tax country and which exceed legal border limits or acquired without taxes for export purposes to be illegally re-sold (for financial profit) in a higher-priced market. CB is an illicit tobacco product.
- Counterfeit cut tobacco (CF): Cut tobacco that is illegally manufactured or sold by a party other than the original trademark owner. CF is an illicit tobacco product.
- Bulk tobacco (BT): cut tobacco, normally priced by weight or packed in bags without proper labelling, sold outside the legitimate channels. It can be also distinguished between Domestic Bulk tobacco (BT(D)) and Non-domestic Bulk tobacco (BT(ND)). BT is an illicit tobacco product.



Cut tobacco consumption

Containers used for selling legal branded fine-cut tobacco



BULK TOBACCO

Images of bulk tobacco.







З.

2.







Sources:

- 1. Delores Johnson / The National
- 2. Oslobodenje
- 3 6. Provided by the industry

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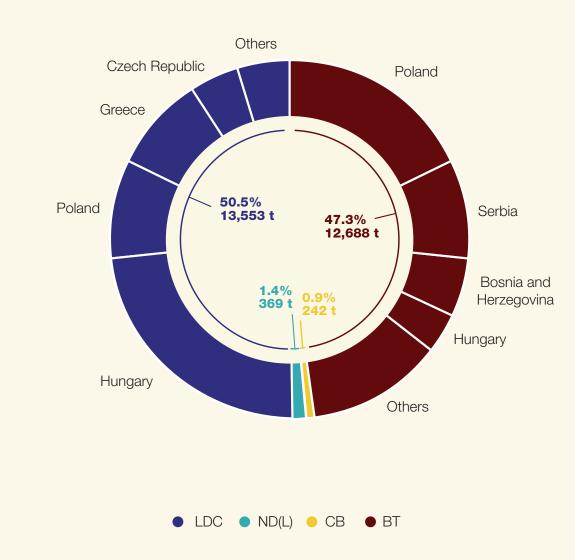


Illicit Cut Tobacco Consumption



BULK TOBACCO ACCOUNTS FOR ALMOST HALF OF THE TOTAL AMOUNT OF CUT TOBACCO CONSUMED

- 48.2% of the total amount of cut tobacco consumed in the 15 countries is illicit.
- Bulk tobacco (BT) is the most consumed illicit type of cut tobacco (98.1% of the illicit cut tobacco consumption). This figure is equivalent to about 12,688 tonnes of cut tobacco.
- Poland, Serbia, Bosnia and Herzegovina and Hungary are the markets recording the highest volumes of BT consumption.
- Contraband (CB) fine-cut tobacco consumption is very low (about 242 tonnes, 0.9% of the total cut tobacco consumption).

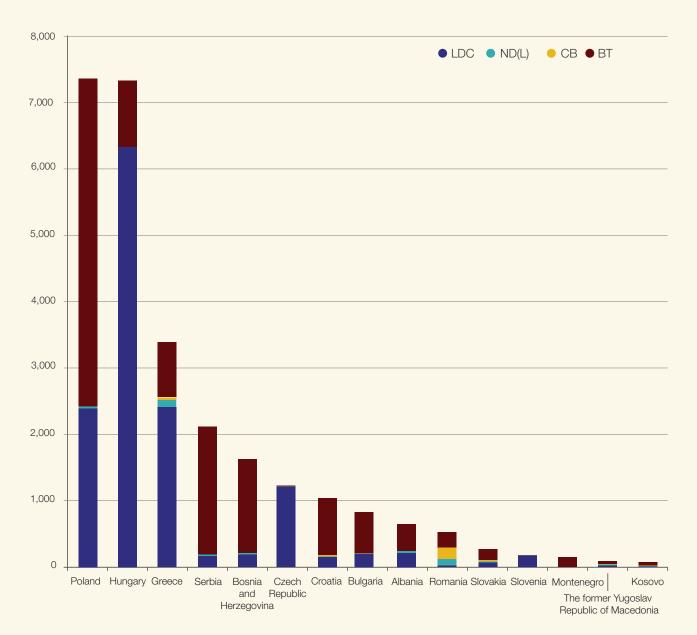


Volumes (tonnes) and shares of the overall regional consumption of cut tobacco (2015)⁴

 The available data does not provide any evidence of Counterfeit (CF) fine-cut tobacco consumption. However, some research indicates that counterfeit may be also present in some countries (e.g. Nielsen (2015)).

LEGAL FINE-CUT TOBACCO CONSUMPTION IS VERY LOW IN FIVE OF THE COUNTRIES CONSIDERED

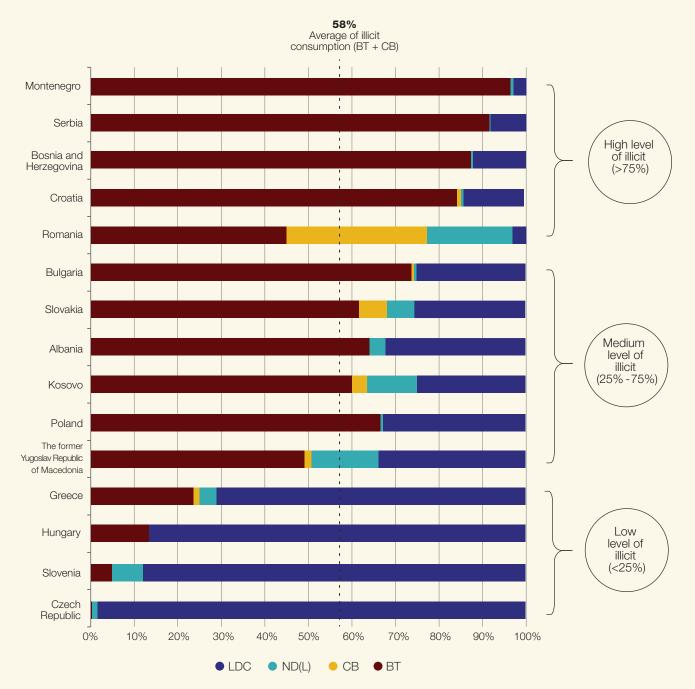
- Poland and Hungary are the largest markets in regards to cut tobacco.
- Consumption of legal fine-cut tobacco (domestic and non-domestic) is very low in 5 out of 15 countries (less than 25% of the total consumption).
- Legal domestic consumption (LDC) is only higher than 50% of the overall cut tobacco consumption in Greece, Hungary, Slovenia and the Czech Republic.
- Non-domestic legal (ND(L)) consumption is significant in Romania, the former Yugoslav Republic of Macedonia and Kosovo (19.8%, 15.6% and 11.5% of the overall cut tobacco consumption, respectively).



Volumes (tonnes) of the overall consumption of cut tobacco by country (2015)

ELEVEN COUNTRIES HAVE A MEDIUM TO HIGH LEVEL OF ILLICIT CUT TOBACCO

- The Western Balkan countries⁵ are the most affected by illicit cut tobacco consumption.
- In Montenegro, Serbia, Bosnia and Herzegovina, Croatia and Romania illicit consumption amounts to more than 75% of the overall cut tobacco consumed.
- BT is the most consumed type of cut tobacco in 11 out of 15 countries.
- The consumption of CB fine-cut tobacco is significant only in Romania (32.1% of the overall cut tobacco consumption). CB fine-cut tobacco is also present in Slovakia and Kosovo (6.9% and 3.3%, respectively).



Shares of overall consumption by country (2015)

 Western Balkan countries include Albania, Bosnia and Herzegovina, Croatia, the former Yugoslav Republic of Macedonia, Kosovo, Montenegro, and Serbia. crime_®tech

BULK TOBACCO IS MAINLY PRODUCED AND SOLD LOCALLY

- The consumption of BT is prevalent in most of the Western Balkan countries, where it amounts to more than half of total cut tobacco consumption.
- In absolute values, Poland (4,921 tonnes), Serbia (1,951), Bosnia and Herzegovina (1,429), and Hungary (993) consume the highest volumes of BT.
- BT is mainly produced and sold locally in seven of the countries considered. In Hungary, the former Yugoslav Republic of Macedonia and Albania almost all of the BT consumed is domestic (BT(D)).
- All of the BT consumed in Slovenia, Romania, the Czech Republic and Slovakia is non-domestic (BT(ND).
- In Croatia and Montenegro BT(D) and BT(ND) consumption shares are almost equivalent.



Bulk tobacco shares of the total consumption of cut tobacco by country

ROLL-YOUR-OWN CONSUMPTION IS THE MOST PREVALENT IN EIGHT OF THE FIFTEEN COUNTRIES

- According to the fine-cut survey's respondents, make-your-own (MYO) consumption is preferred by consumers of legal fine-cut tobacco in Bosnia and Herzegovina, Poland, and Hungary.
- There is a relatively even split between roll-your-own (RYO) and MYO consumption in the former Yugoslav Republic of Macedonia, Montenegro and Serbia.
- In the remaining countries, RYO consumption is prevalent.



RYO and MYO legal fine-cut tobacco consumption shares by country

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The Drivers of Illicit Consumption



Three main drivers may impact on the illicit consumption of cut tobacco.



Affordability is the percentage of yearly GDP per capita needed to buy the annual quantity of fine-cut tobacco consumed by an average consumer. Less affordable legal fine-cut tobacco can increase the consumption of illicit products. This measure refers to the absolute affordability, while the relative affordability is considered in the third driver (Price differentials).





The availability of cut tobacco is connected to the tobacco production per capita within a country. High production can increase the availability of illicit BT within the country and/or facilitate its outflows to neighbouring countries.



3. Price differential

External: Bordering on a lower-priced country can increase the risk of illicit cut tobacco consumption. The price of one pouch of 50 grams of the cheapest legal brand is considered to determine the influence of price differentials on CB consumption.

Internal: Large differences among the prices of legal fine-cut tobacco and BT can foster the illicit consumption. The estimated price of illicit BT tobacco is considered in order to assess the differential with respect to the cheapest legal fine-cut tobacco product.

A LOWER AFFORDABILITY OF LEGAL PRODUCTS CAN ENCOURAGE ILLICIT CONSUMPTION

- In this study, legal fine-cut tobacco affordability is calculated as the percentage of yearly GDP per capita needed to buy 100 pouches of 50 grams of the cheapest brand of fine-cut tobacco. This quantity approximates the annual consumption of cut tobacco by an average consumer.
- As an example, a Macedonian smoker would spend an amount equal to 11.6% of Macedonia's yearly GDP per capita to buy 100 pouches of 50 grams of the cheapest brand of fine-cut tobacco. A Polish smoker would spend only 2.3%.
- Low affordability of legal fine-cut tobacco may push some consumers towards the illicit consumption.



Affordability of legal fine-cut tobacco (2015)

HIGHER TOBACCO PRODUCTION CAN INCREASE THE AVAILABILITY OF BULK TOBACCO

- The availability of BT may be connected to the tobacco production per capita within a country.⁶ The higher the production, the higher the potential amount of illicit cut tobacco accessible to consumers through informal channels.
- High levels of tobacco production per capita could explain large shares of BT consumption and its outflows to neighbouring countries.



Tobacco production (kg per capita)⁷ and main BT flows

- 6. Using tobacco production per capita is preferable to the total volumes because it better represents the quantity of tobacco available to a potential consumer. This value considers the population aged over 18 years old.
- 7. Last available year.
- 8. FAME database. 2016.
- 9. Euromonitor International. 2015. Tobacco in Greece. Passport.

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SIGNIFICANT PRICE DIFFERENTIALS BETWEEN LEGAL AND ILLICIT PRODUCTS CAN INCREASE ILLICIT CONSUMPTION

Two types of price differentials are considered.

External:

- Bordering a lower-priced country can increase the illicit cut tobacco consumption.
- The price of one pouch of 50 grams of the cheapest fine-cut tobacco brand is considered to determine the influence of price differentials on CB consumption.
- Hungary is the main country of origin of CB finecut tobacco. This may be due to the lower price of

fine-cut tobacco in Hungary compared with those in neighbouring countries. Hungarian CB fine-cut tobacco is destined for Romania, Slovenia and Slovakia.

Internal:

- Large differences between the prices of legal fine-cut tobacco and bulk tobacco within a country can foster illicit consumption.
- On average, BT prices are three to four times lower than the prices of the cheapest legal fine-cut tobacco. This differential is remarkable in Greece and Bulgaria.



Prices of a 50-gram pouch of the cheapest fine-cut tobacco brand¹⁰ and of bulk tobacco¹¹ (2015)

10. Industry data

11. Fine cut surveys. 2015. This is an average of the prices declared by the respondents.



Regulation



REGULATION

The following table summarises the results of the assessment of the policy measures used to tackle the illicit trade of cut tobacco in the 15 countries included in the study.

Details about the meaning of each indicator and the results of the assessment can be found in the country profiles and in the Methodological Appendix.

Cut tobacco regulation

	INDICATORS						
	A. Raw tobacco production	B. Fine-cut tobacco production	C. Fine-cut tobacco distribution	D. Internet sales	E. Sanctions	F. Control measures	G. Data
Albania		•	0	•		0	0
Bosnia and Herzegovina				0		0	0
Bulgaria							
Croatia						0	0
Czech Republic	N/A			0			0
Greece	0			0	•		0
Hungary							
Kosovo				0			0
Montenegro						0	0
Poland	0						
Romania				0			0
Serbia						0	0
Slovakia	N/A						
Slovenia	N/A			0		0	0
The former Yugoslav Republic of Macedonia		•	•	•		•	0

Fully implemented

Partially implemented

O Not implemented

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Country Profiles

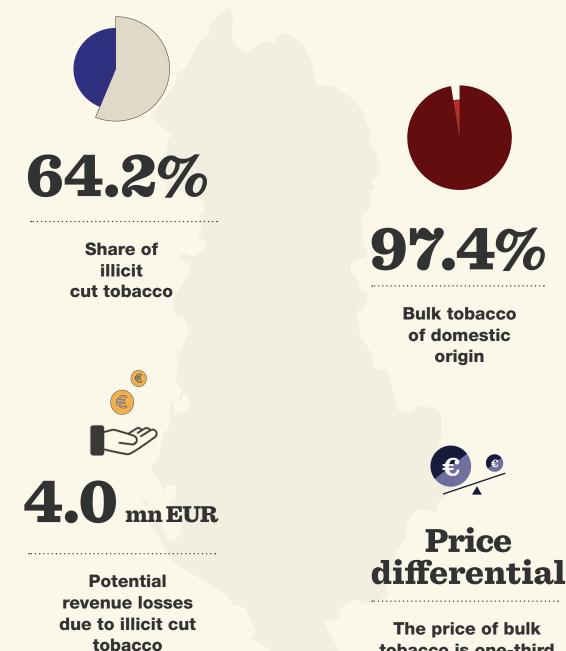






KEY FINDINGS

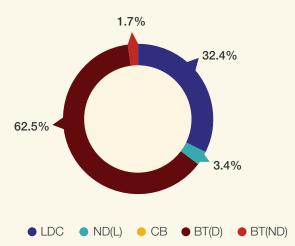
(≈ 559.3 mn ALL)



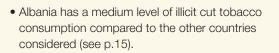
The price of bulk tobacco is one-third of the cheapest legal fine-cut tobacco

64.2% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The total estimated volume of cut tobacco smoked in Albania during 2015 is 655 tonnes.
- RYO consumption is prevalent in the legal market.
- 64.2% of the total cut tobacco consumption is estimated to be illicit, which equals to approximately 420 tonnes of cut tobacco.

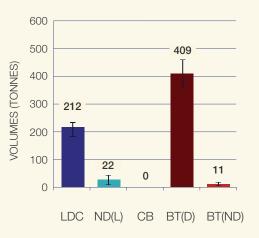


Shares of the overall consumption



• All of the illicit cut tobacco consumed in Albania is bulk tobacco (BT).

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	212	32.4%
Non-Domestic Legal - ND(L)	22	3.4%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	409	62.5%
Non-Domestic Bulk tobacco - BT(ND)	11	1.7%
Total Legal Consumption	235	35.8%
Total Illicit Consumption	420	64.2%
TOTAL CONSUMPTION	655	100.0%

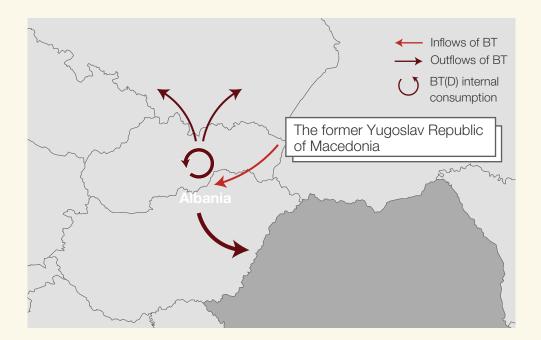
Note: numbers may not add up due to rounding

BULK TOBACCO IN ALBANIA IS MAINLY DOMESTIC

- The majority of BT consumed in Albania is domestic (97.4%).
- Inflows of non-domestic bulk tobacco (BT(ND)) originate mainly from the former Yugoslav Republic of Macedonia, where yearly raw tobacco production (24,237 tonnes) far exceeds that of Albania (1,735 tonnes).1

Main flows of bulk tobacco into and out of Albania

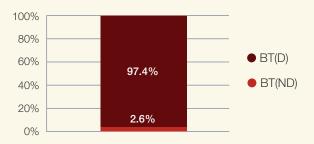
• The main outflow of the Albanian BT reaches the Greek market; the remainder arrives in either Montenegro or Kosovo.



Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	186
Inflows	11

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Half of the BT bags that Albanian smokers buy come from street vendors. For the remainder, open-air markets (37.5%) and relatives, friends or colleagues (8.3%) are the channels through which consumers purchase BT.² In September 2015, 0.7 tonnes of cut tobacco were seized in Cërrik after an inspection at an open-air market. The traders were all farmers, mainly from Elbasan County.³

3. This is the only case of cut tobacco seizure registered on the FAME database 2016.

^{1.} Agroweb.org. 2016. "Restarting the Tobacco Business." Agroweb. org; MAKStat Database. 2016. "Crop production, by years, by regions." MAKStat Database

^{2.} Fine-cut survey. 2015.

ALBANIA IS A SOURCE COUNTRY OF CONTRABAND FINE-CUT TOBACCO

- The available data does not provide any evidence of contraband (CB) fine-cut tobacco inflows into Albania.
- Albania is a source country of CB fine-cut tobacco, especially for Greece and the former Yugoslav Republic of Macedonia. These flows are likely to be due to price differentials.
- Some evidence of outflows to Kosovo is recorded.
- The volumes of non-domestic legal (ND(L)) fine-cut tobacco inflows outweigh the volumes of the outflows.
- Greece and Germany are the main source countries for ND(L).

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Albania



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	21
Inflows	0

ND(L) FLOWS	Tonnes
Outflows	0.1
Inflows	22

4.0 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 4.0 mn EUR (\approx 559.3 mn ALL).⁴

Almost all the revenue losses (3.9 mn EUR \approx 544.5 mn ALL) are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The affordability of legal fine-cut tobacco is close to the regional average.
- Albania is one of the minor producers of tobacco within the countries considered. This may limit the availability of BT.
- The estimated price of BT (0.7 EUR ≈ 92.4 ALL) is approximately one-third of the cheapest fine-cut tobacco legal brand (2.4 EUR \approx 333.3 ALL).
- **TOBACCO AFFORDABILITY OF BULK TOBACCO** PRODUCTION LEGAL PRODUCTS PRICE PER CAPITA PRODUCTION 0.8 kg **REGIONAL AVERAGE 5.8%** 92.4 ALL **REGIONAL AVERAGE 2.3 kg** % yearly per capita GDP needed to buy Tonnes of tobacco produced in the Estimated price of BT for one pouch of 100 pouches of 50 grams of the country (2014) 50 grams of cut tobacco (2015) cheapest fine-cut tobacco brand (2015) Source: Agroweb⁶ Source: Fine-cut survey Source: Industry data; IMF⁵

CONSUMERS

BT smokers are generally older, less affluent, less educated, and more likely to be unemployed than the consumers of branded fine-cut tobacco.7

EDUCAT MONTHLY HOUSEHOLD INC % UNEMPLO

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (99.5%)	Male (100%)
AGE	45-54 (29.0%)	55-64 (39.5%)
rion ⁸	High school (51.2%)	Secondary school (42.1%)
JOB	In full-time employment (60.5%)	In full-time employment (44.7%)
COME	319 EUR	240 EUR
OYED	30.2%	34.2%

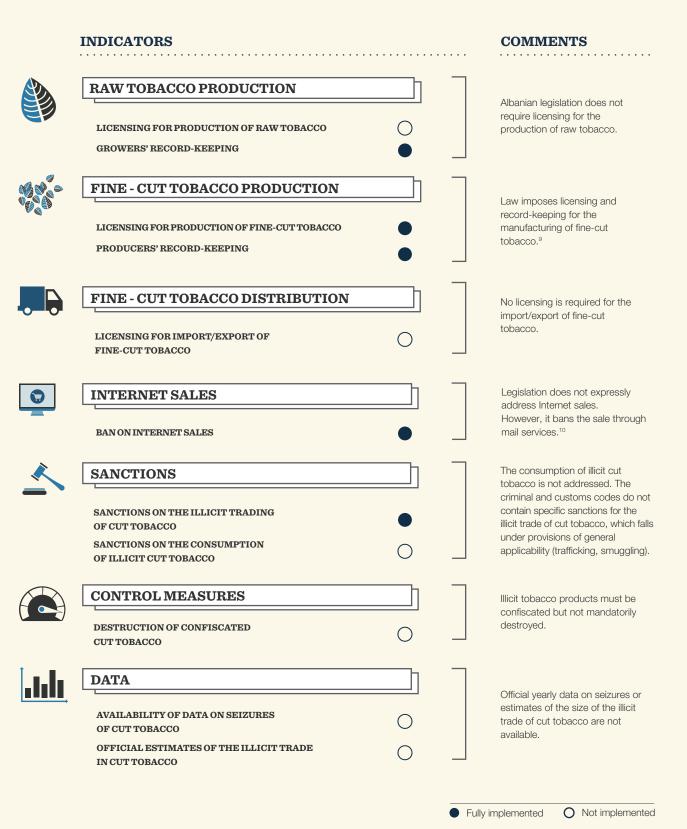
5. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

- 6. Agroweb.org. 2016. "Restarting the Tobacco Business." Agroweb. org
- 7. Fine-cut survey. 2015.
- 8. The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Albania.

Cut tobacco regulation in Albania



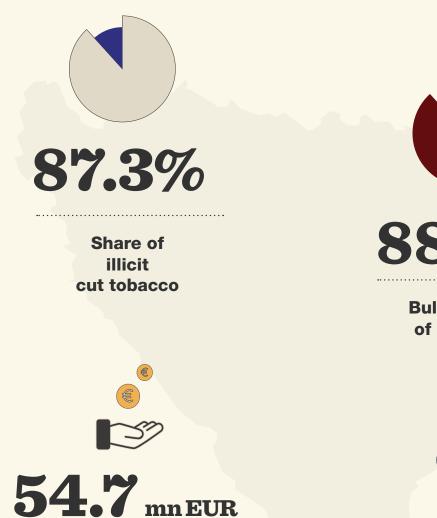
9. Art. 14 Law on the Production and Marketing of Tobacco and Cigarettes

10. Art. 10 Law for Protection of Health from Tobacco Products

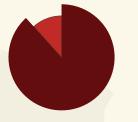
BOSNIA AND HERZEGOVINA



KEY FINDINGS



Potential revenue losses due to illicit cut tobacco (≈ 106.9 mn BAM)





Bulk tobacco of domestic origin



Price differential

The price of bulk tobacco is almost half of the cheapest legal fine-cut tobacco

87.3% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The overall estimated volume of cut tobacco smoked in Bosnia and Herzegovina during 2015 is 1,637 tonnes.
- In the legal market, MYO consumption is prevalent.
- 87.3% of the total cut tobacco consumption is estimated to be illicit. This figure equals to approximately 1,429 tonnes of cut tobacco.

Shares of the overall consumption

77.1%

10.2%

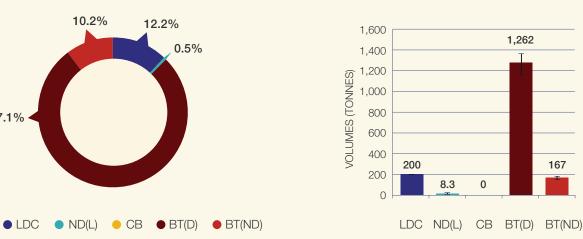
- Bosnia and Herzegovina presents a high level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- All of the illicit cut tobacco consumed in Bosnia and Herzegovina is bulk tobacco (BT).

Cut tobacco consumption by types and volumes

0

1,262

167



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	200	12.2%
Non-Domestic Legal - ND(L)	8.3	0.5%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	1,262	77.1%
Non-Domestic Bulk tobacco - BT(ND)	167	10.2%
Total Legal Consumption	208	12.7%
Total Illicit Consumption	1,429	87.3%
TOTAL CONSUMPTION	1,637	100.0%

Note: numbers may not add up due to rounding

BOSNIA AND HERZEGOVINA IS AN ORIGIN AND TRANSIT COUNTRY FOR BULK TOBACCO

- The majority of BT consumed in Bosnia and Herzegovina is domestic (88.3%), while only a small proportion originates from abroad (11.7%).
- Bosnia and Herzegovina is a country of destination of BT tobacco originating mainly from Serbia and Montenegro. There is also evidence of another marginal inflow from Bulgaria.
- Bosnia and Herzegovina is also the origin of relevant outflows of BT directed to Serbia, Croatia and Slovenia.
- The BT is likely to be grown within Bosnia and Herzegovina or transported through the country.

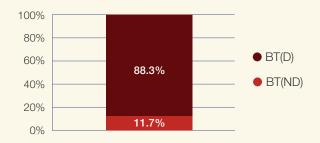
Main flows of bulk tobacco into and out of Bosnia and Herzegovina



Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	938
Inflows	167

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

According to the Fine-cut survey's responses, street vendors (44%) and open-air markets (36.8%) are the major informal distribution points of BT. To a lesser extent (16%), relatives, friends or colleagues are the suppliers of BT.¹

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1. Fine-cut survey. 2015.
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NON-DOMESTIC CONSUMPTION IS DUE TO LEGAL CROSS-BORDER PURCHASES

- The existing data does not provide any evidence of CB fine-cut tobacco inflows into Bosnia and Herzegovina.
- Non-domestic legal (ND(L)) fine-cut tobacco inflow from Croatia is likely to be related to tourism or brand availability since Croatia has a higher-priced tobacco market than Bosnia and Herzegovina.

Main flows of non-domestic legal fine-cut tobacco into and out of Bosnia and Herzegovina



Total inflows and outflows of non-domestic legal fine-cut tobacco, volumes (tonnes)

ND(L) FLOWS	Tonnes
Outflows	1.8
Inflows	8.3

54.7 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 54.7 mn EUR (\approx 106.9 mn BAM).

About 88% of these revenue losses (48.3 mn EUR \approx 94.4 mn BAM) are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The price of the cheapest legal fine-cut tobacco brand (1.3 EUR \approx 2.6 BAM for a 50-gram pouch) is about twice the estimated price of BT (0.8 EUR \approx 1.5 BAM).
- Legal fine-cut tobacco is highly affordable in Bosnia and Herzegovina.
- Bosnia and Herzegovina's yearly volume of tobacco production is lower than the average of the countries considered (10,601 tonnes).

BULK TOBACCO

8 EUR

1.5 BAM

PRICE

Estimated price of BT for one pouch of

50 grams of cut tobacco (2015)

Source: Fine-cut survey



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF²

CONSUMERS

BT smokers are younger, less affluent, and more likely to be unemployed than smokers of branded fine-cut tobacco.⁴

TOBACCO

PRODUCTION

2,047

PER CAPITA PRODUCTION 0.6 kg

REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the

Source: Ministry of Foreign Trade and

country (2014)

Economic Relations³

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (56.8%) / Female (43.2%)	Male (62.1%)
AGE	25-34 (35.14%)	19-24 (25.8%)
EDUCATION⁵	University (32.4%)	Technical/Vocational training (37.1%)
JOB	In full-time employment (51.4%)	Student/In full-time education (26.6%)
MONTHLY HOUSEHOLD INCOME	620 EUR	511 EUR
% UNEMPLOYED	14.9%	19.4%

SEIZURES

Three of the main tobacco seizures in 2015:6

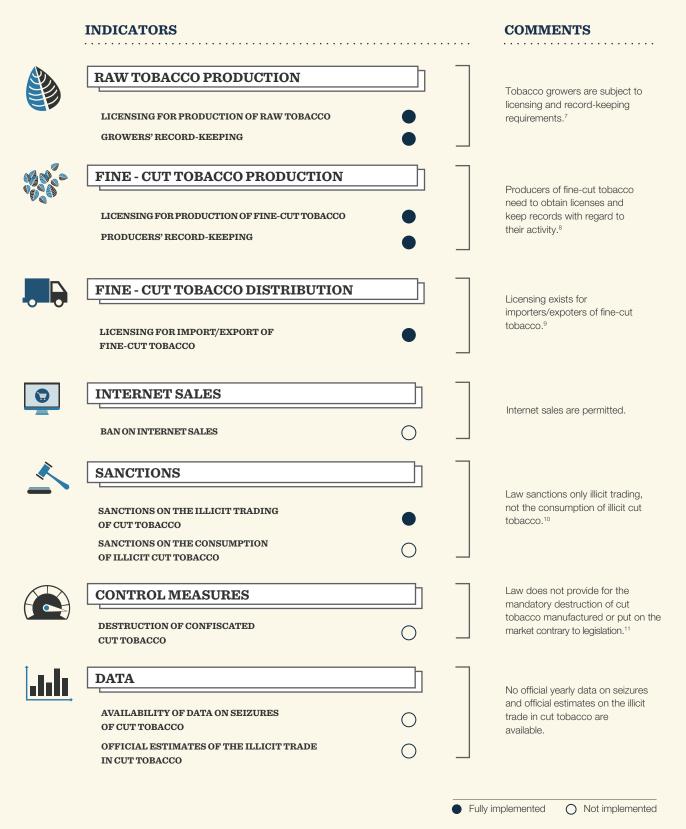
- 1. About 10 tonnes of cut tobacco and tobacco leaves were seized in Tuzla, Bijeljina, Srebrenik, Brcko and Sarajevo during the second week of October.
- 2. About 8.8 tonnes of cut tobacco were seized in Prijedor at the end of October. Bosnian Police discovered the tobacco inside several plastic bags after searching a motor vehicle.
- 3. About one tonne of tobacco leaves was seized in Bosanski Samac at the beginning of November. Bosnian Police found the tobacco after inspecting a truck.
- 2. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- 3. Ministry of Foreign Trade and Economic Relations. 2015. ANNUAL REPORT Agriculture, Food and Rural Development of Bosnia and Herzegovina for 2014. Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina
- 4. Fine-cut survey. 2015.
- 5. The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
- 6. FAME database, 2016.

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APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Bosnia and Herzegovina.

Cut tobacco regulation in Bosnia and Herzegovina



crime_«tech

7. Art 6-10 and 37 Tobacco Act; art. 27 Law on Tobacco RS

 Art. 28-30 and 37 Tobacco Act; Ordinance on registration and conditions for processing and production of tobacco products; art. 27 Law on Tobacco RS 9. Art. 5 and 36 Tobacco act; art. 13 Excise duty Act

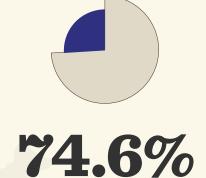
10. Art. 42-45 Tobacco act; art. 41 Excise duty Act; art. 121, 210a and 214 Criminal Code

11. Art. 33 Law on Tobacco RS

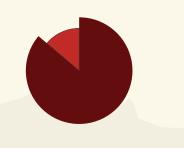




KEY FINDINGS



Share of illicit cut tobacco





Bulk tobacco of domestic origin



61.9 mn EUR

Potential revenue losses due to illicit cut tobacco (≈ 121.1 mn BGN)



Availability

Bulgaria is the second largest tobacco grower in the region

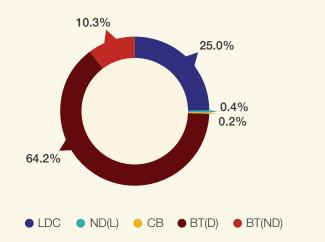
74.6% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

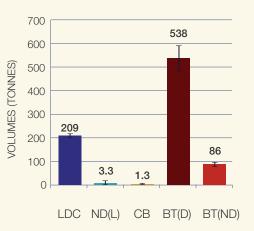
- The total estimated volume of cut tobacco consumed in Bulgaria during 2015 is 838 tonnes.
- RYO consumption is highly prevalent in the legal tobacco market.
- 74.6% of the overall cut tobacco consumption is estimated to be illicit, which equals to approximately 625 tonnes of cut tobacco.

Shares of the overall consumption

- Bulgaria has a medium level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- Almost all of the illicit cut tobacco consumed in Bulgaria is bulk tobacco (BT).

Cut tobacco consumption by types and volumes





Cut tobacco consumption by types, volumes and shares of the overall consumption

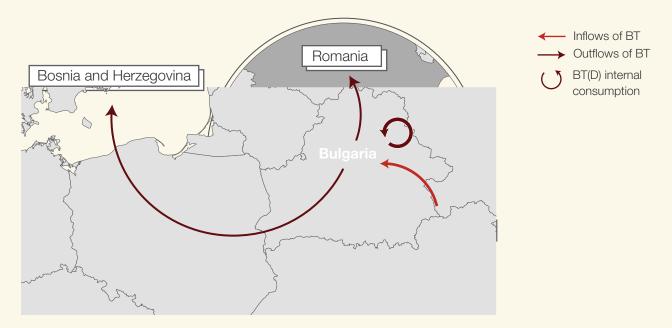
Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	209	25.0%
Non-Domestic Legal - ND(L)	3.3	0.4%
Contraband - CB	1.3	0.2%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	538	64.2%
Non-Domestic Bulk tobacco - BT(ND)	86	10.3%
Total Legal Consumption	213	25.4%
Total Illicit Consumption	625	74.6%
TOTAL CONSUMPTION	838	100.0%

Note: numbers may not add up due to rounding

BULK TOBACCO IN BULGARIA IS MAINLY DOMESTIC

- 86.2% of the BT smoked in Bulgaria is domestic. This may be due to the availability of tobacco since Bulgaria is one of the largest producers among the 15 countries considered (28,680 tonnes in 2014).¹
- Non-domestic bulk tobacco (BT(ND)) comes mainly from Turkey.
- According to available data, Romania and Bosnia and Herzegovina are the main destination countries for Bulgarian BT.

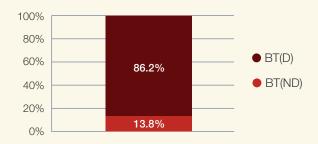
Main flows of bulk tobacco into and out of Bulgaria



Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	44
Inflows	86

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Bulgarian smokers declare purchasing BT mainly from street vendors (28.5%), from relatives, friends or colleagues (17.1%), from open-air markets (15.7%), and from kiosks (11.4%). A small portion of smokers (8.6%) buy it online.²

 European Commission. 2015. Raw Tobacco – Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development

2. Fine-cut survey. 2015.

BULGARIA IS A COUNTRY OF ORIGIN AND A DESTINATION MARKET FOR CONTRABAND FINE-CUT TOBACCO

- According to available data, Serbia is the main source of contraband (CB) fine-cut tobacco products in Bulgaria.
- Inflows from Serbia may be price-related since the cheapest fine-cut tobacco product in Bulgaria (6.4 EUR for one 50-gram pouch) costs almost thrice the

price of the cheapest fine-cut tobacco product in Serbia (2.2 EUR).

• The Romanian market is the main destination of CB fine-cut tobacco originating from Bulgaria.

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Bulgaria



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	9.5
Inflows	1.3

ND(L) FLOWS	Tonnes
Outflows	1.5
Inflows	3.2

61.9 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 61.9 Mn EUR (\approx 121.1 mn BGN).

About 86% of these revenue losses (53.3 mn EUR \approx 104.1 mn ALL) are due to the consumption of domestic bulk tobacco (BT(D)).

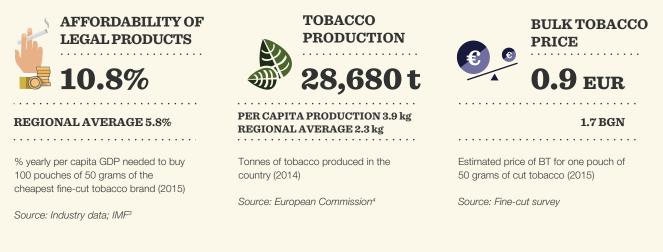
crime «tech

DRIVERS OF ILLICIT CONSUMPTION

- BT in Bulgaria is very low-priced (0.9 EUR ≈ 1.7 BGN) for a 50-gram pouch) compared to the cheapest legal brand of fine-cut tobacco (6.4 EUR \approx 12.5 BGN).
- The legal fine-cut tobacco products in Bulgaria are

significantly less affordable than in most of the other countries considered.

• Bulgaria is one of the largest tobacco growers in the region (second after Greece). This may foster the availability of BT.



CONSUMERS

BT smokers are generally older, less affluent, and more likely to be unemployed than the consumers of branded fine-cut tobacco.5

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (50.7%) / Female (49.3%)	Male (53.5%) / Female (46.5%)
AGE	25-34 (29.7%)	45-54 (32.4%)
EDUCATION ⁶	Secondary school (39.7%)	Secondary school (47.9%)
JOB	Full-time employment (65.9%)	Full-time employment (56.3%)
MONTHLY HOUSEHOLD INCOME	398 EUR	330 EUR
% UNEMPLOYED	8.7%	18.3%

SEIZURES

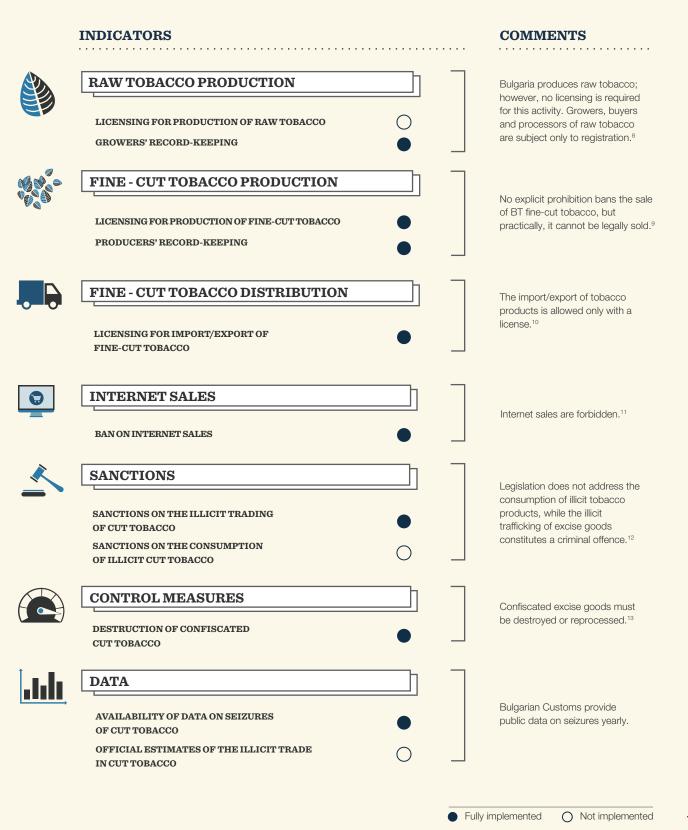
Three of the main tobacco seizures in 2015;7

- 1. A total of 0.5 tonnes of cut tobacco were seized in Plovdiv in the first week of January 2015. Bulgarian Economic Police and Custom officers found the tobacco after searching a truck driven by a 55-year-old Bulgarian citizen.
- 2. A total of 2.8 tonnes of loose tobacco were seized at the market in Bukovlak at the end of September. Bulgarian Police discovered eight street vendors selling illicit cut tobacco.
- 3. A total of 0.8 tonnes of raw tobacco, 11 bales of dried tobacco, 4 bales that had been undergoing treatment, and 0.6 tonnes of cut tobacco were found in an illicit factory in Bayala in early October. Besides tobacco, Bulgarian Police also found and seized several machines for cutting raw tobacco, along with two electronic scales.
- 3. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- 4. European Commission. 2015. Raw Tobacco Production Statistics - 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development
- 5. Fine-cut survey. 2015.
- 6. The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
- 7. FAME database. 2016.

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Bulgaria.

Cut tobacco regulation in Bulgaria



Art. 4(2) Tobacco, Tobacco and Related Products Act
 Art. 30(1) Tobacco, Tobacco and Related Products Act
 Excise Duties and Tax Warehouses Act

11. Art. 30(1) and 31a Tobacco, Tobacco and Related Products Act 12. Art. 234 and 242 Criminal Code

13. Art. 124(5) Excise Duties and Tax Warehouses Act

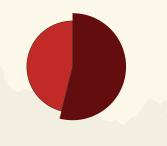




KEY FINDINGS



Share of illicit cut tobacco



53.9%

Bulk tobacco of domestic origin





Potential revenue losses due to illicit cut tobacco (≈ 679.8 mn HRK)



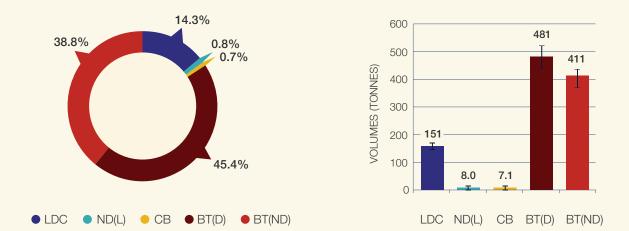
Price differential

Bulk tobacco costs less than half of the cheapest legal fine-cut tobacco

84.9% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The total estimated volume of cut tobacco smoked in Croatia during 2015 is 1,059 tonnes.
- In the legal market, RYO consumption is prevalent.
- 84.9% of the total cut tobacco consumption is estimated to be illicit. This share corresponds to approximately 899 tonnes of cut tobacco.
- A high level of illicit cut tobacco consumption characterises Croatian country compared to the other markets in the region (see p.15).
- Bulk tobacco (BT) is the most consumed illicit cut tobacco in Croatia.

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	151	14.3%
Non-Domestic Legal - ND(L)	8.0	0.8%
Contraband - CB	7.1	0.7%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	481	45.4%
Non-Domestic Bulk tobacco - BT(ND)	411	38.8%
Total Legal Consumption	159	15.1%
Total Illicit Consumption	899	84.9%
TOTAL CONSUMPTION	1,059	100.0%

Note: numbers may not add up due to rounding

Shares of the overall consumption

ABOUT A HALF OF BULK TOBACCO CONSUMED IN CROATIA IS SMUGGLED

- Approximately 46.1% of BT is estimated to be non-domestic.
- Inflows of non-domestic bulk tobacco (BT(ND)) originate mainly from Bosnia and Herzegovina, and to a lesser extent from Kosovo and Serbia.
- In all these countries, the estimated prices of BT are lower than they are in Croatia.¹
- A minor BT outflow to Bosnia and Herzegovina emerges from the available data.

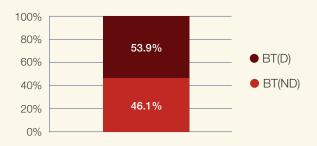


Main flows of bulk tobacco into and out of Croatia

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	12
Inflows	411

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Informal points of sale are the main channels through which Croatian smokers purchase BT. About a half (49.3%) of them buy it at open-air markets, while about one third (31.3%) from relatives, friends, or colleagues.²

1. Fine-cut survey. 2015.

^{2.} Fine-cut survey. 2015.

CROATIA IS A DESTINATION COUNTRY OF CONTRABAND FINE-CUT TOBACCO

- Contraband (CB) fine-cut tobacco consumed in Croatia originates mainly from Serbia.
- In this country, the price of the cheapest product is lower (2.2 EUR for a 50-gram pouch) than it is in Croatia (5.9 EUR).
- The available data provides some evidence of the consumption of non-domestic legal (ND(L)) finecut tobacco coming mainly from Germany and the Netherlands.
- Bosnia and Herzegovina and Slovenia are the destination countries of the majority of ND(L) fine-cut tobacco outflows from Croatia.



Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Croatia

Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0
Inflows	7.1

ND(L) FLOWS	Tonnes
Outflows	15
Inflows	8.0

88.9 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 88.9 mn EUR (\approx 679.8 mn HRK).

About 53% of these revenue losses (47.6 mn EUR \approx 363.5 mn HRK) is due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The estimated price of BT in Croatia (2.2 EUR ≈ 16.7 HRK for a 50-gram pouch) is less than half of the cheapest fine-cut tobacco legal brand (5.9 EUR ≈ 45.0 HRK).
- The affordability of legal fine-cut is close to the regional average.
- Croatia's yearly volume of tobacco production is below the average of the countries considered (10,601 tonnes). This may foster BT(ND) demand.

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50 grams of cut tobacco (2015)

Source: Fine-cut survey

Estimated price of BT for one pouch of

BULK TOBACCO

.2 EUR

16.7 HRK

.

PRICE

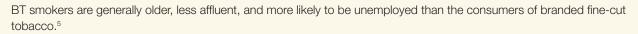


REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF³

CONSUMERS



TOBACCO

PER CAPITA PRODUCTION 2.9 kg

REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the

Source: Croatian Bureau of Statistics⁴

country (2015)

PRODUCTION

10,132 t

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (52.8%) / Female (47.2%)	Male (52.1%) / Female (47.9%)
AGE	25-34 (36.7%)	55-64 (29.6%)
EDUCATION ⁶	Secondary school (41.5%)	Secondary school (57.7%)
JOB	In full-time employment (48.9%)	In ful-time employment (43.7%)
MONTHLY HOUSEHOLD INCOME	925 EUR	760 EUR
% UNEMPLOYED	13.5%	25.4%

SEIZURES

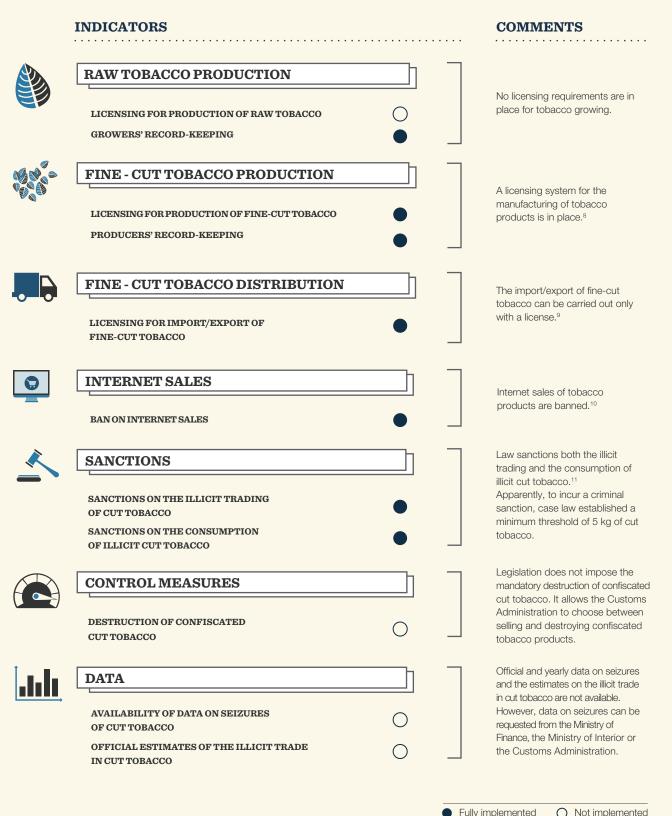
Three of the main tobacco seizures in 2015:7

- 1. Nearly 8 tonnes of tobacco were seized in Dubrava in early March. Croatian Police and Customs officers found several premises and properties owned by two people (aged 86 and 33). Besides tobacco, they also seized several machines for cutting and processing tobacco.
- 2. A total of 27.2 tonnes of cut tobacco were seized in Vrbovec and in Zagreb at the end of September. Croatian Customs officers discovered the tobacco after inspecting six different Croatian citizens.
- 3. More than 20 tonnes of leaf tobacco were seized in the area of the wholesale market in Zagreb in October. Croatian Police and Customs officers found the tobacco in two different places: inside a truck driven by a Serbian citizen, and in a storage area.
- 3. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- 4. Croatian Bureau of Statistics. 2015. Crop Production 2014. Croatian Bureau of Statistics
- 5. Fine-cut survey. 2015.
- 6. The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
- 7. FAME database. 2016.

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Croatia.

Cut tobacco regulation in Croatia



Fully implemented

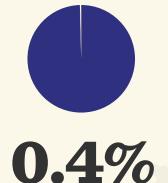
8. Art. 24 and 25 Tobacco Act 9. Art. 30 Tobacco Act

10. Art. 11 Act on Restriction on the Use of Tobacco Products 11. Art. 102a Excise Duties Act

CZECH REPUBLIC



KEY FINDINGS



Share of illicit cut tobacco





Bulk tobacco is the only illicit type of cut tobacco





Potential revenue losses due to illicit cut tobacco (≈ 10.9 mn CZK)



Affordability

Legal fine-cut tobacco in the Czech Republic is highly affordable

0.4% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

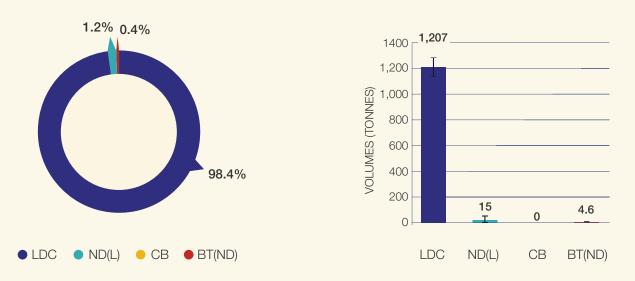
- The overall estimated volume of cut tobacco smoked in the Czech Republic during 2015 is 1,227 tonnes.
- RYO consumption is prevalent in the legal tobacco market.
- 0.4% of the total cut tobacco consumption is estimated to be illicit. This share is equal to 4.6 tonnes of cut tobacco.

Shares of the overall consumption

• The Czech Republic presents a low level of illicit cut tobacco consumption compared to the other countries considered (see p.15).

• The illicit cut tobacco consumption is made up exclusively of non-domestic bulk tobacco (BT(ND)).

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	1,207	98.4%
Non-Domestic Legal - ND(L)	15	1.2%
Contraband - CB	0	0.0%
Bulk tobacco		
Non-domestic bulk tobacco - BT(ND)1	4.6	0.4%
Total Legal Consumption	1,222	99.6%
Total Illicit Consumption	4.6	0.4%
TOTAL CONSUMPTION	1,227	100.0%

Note: numbers may not add up due to rounding

1. Since Czech Republic is not a country where tobacco is produced, all the bulk tobacco found is assumed to be non-domestic.

NON-DOMESTIC LEGAL FINE-CUT INFLOWS ARE HIGHER THAN THE OUTFLOWS

- From the available data, there is no evidence of contraband (CB) fine-cut tobacco inflows and outflows.
- The volumes of non-domestic legal (ND(L)) fine-cut tobacco inflows are higher than the volumes of ND(L) outflows. Most of the ND(L) is identifiable as Duty Free, and to a lesser extent originates from Italy.
- Some outflows of ND(L) fine-cut tobacco to Slovakia are found.

Main flows of non-domestic legal fine-cut tobacco into and out of the Czech Republic



Total inflows and outflows of non-domestic legal fine-cut tobacco, volumes (tonnes)

ND(L) FLOWS	Tonnes
Outflows	4.6
Inflows	17

398,000 EUR

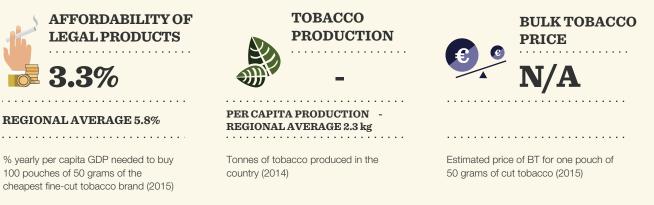
Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 398,000 EUR (\approx 10.9 mn CZK).

All of these revenue losses are due to the consumption of bulk tobacco (BT).

DRIVERS OF ILLICIT CONSUMPTION

- Legal fine-cut tobacco in the Czech Republic is more affordable (3.3% of the yearly per-capita GDP) than in other countries considered (5.8% on average).
- The Czech Republic does not produce tobacco. This decreases the availability of BT.
- No information about BT prices is available.



Source: Industry data; IMF²

CONSUMERS

Available data does not allow the BT consumers' profile to be identified. With regard to Czech branded tobacco consumers, they have ages between 35 and 44, and they have a medium to high level of education.³

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (57.3%) /Female (42.7%)	-
AGE	35-44 (28.3%)	-
EDUCATION ⁴	High school (38.0%)	-
JOB	In full-time employment (61.0%)	-
MONTHLY HOUSEHOLD INCOME	875 EUR	-
% UNEMPLOYED	11.3%	-

SEIZURES

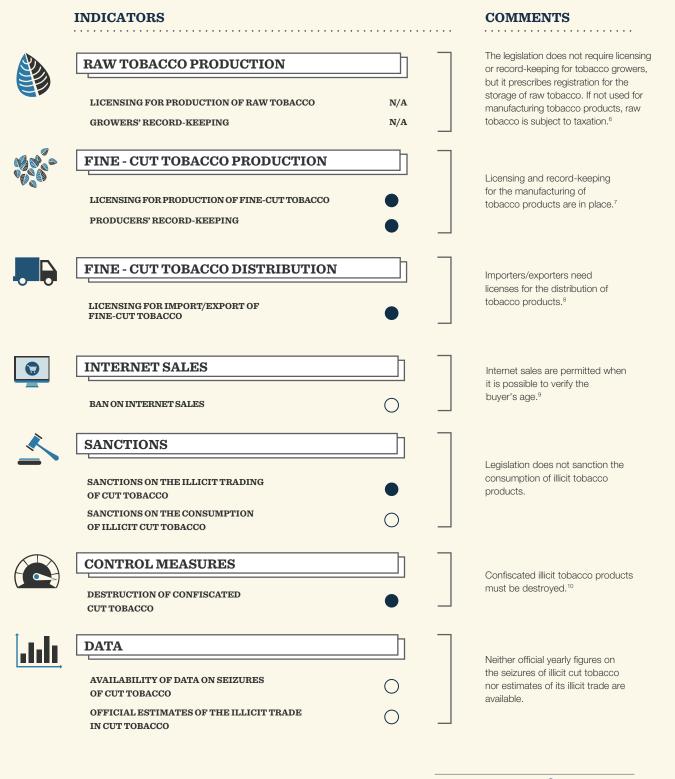
Three of the main tobacco seizures in 2015:5

- 1. Over 3 tonnes of tobacco leaves were seized in the region of Ostrava in October. The Czech-Polish gang imported tobacco from Italy and from the East to produce and sell illicit cut tobacco.
- 2. A total of 1.4 tonnes of cut tobacco, 12 kilograms of tobacco leaves and 500 kilograms of cut tobacco in bags were seized in different locations situated in North Bohemia at the end of November. Customs officers found the tobacco after inspecting several premises and properties of five people (four Asians and one Croatian). Besides tobacco, they also seized machines and equipment for cutting tobacco.
- 3. A total of 1.2 tonnes of raw tobacco were seized in Hradec Králové during the second week of July. Customs officers discovered the tobacco after searching a minibus with Polish registration driven by a Polish citizen.
- IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
 Fine-cut survey. 2015.
- The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 FAME database. 2016.

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in the Czech Republic.

Cut tobacco regulation in the Czech Republic



9. § 4 Act 379/2005 on Measures to Protect Against Damage Caused by Tobacco Products, Alcohol and Other Addictive Substances and amending related laws





KEY FINDINGS



Share of illicit cut tobacco





Bulk tobacco of domestic origin



168.2 mn EUR

Potential revenue losses due to illicit cut tobacco



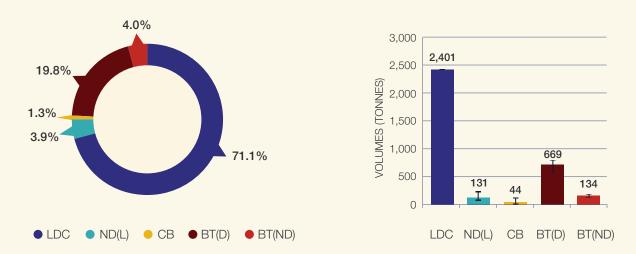
Availability

Greece is the largest tobacco grower in the region

25.0% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The overall estimated volume of cut tobacco smoked in Greece during 2015 is 3,378 tonnes.
- Among consumers of legal tobacco products, RYO consumption is highly prevalent.
- 25.0% of the total cut tobacco consumption is estimated to be illicit. This percentage is equal to approximately 846 tonnes of cut tobacco.
- Greece presents a low level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- Bulk tobacco (BT) is the most consumed illicit type of cut tobacco.

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	2,401	71.1%
Non-Domestic Legal - ND(L)	131	3.9%
Contraband - CB	44	1.3%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	669	19.8%
Non-Domestic Bulk tobacco - BT(ND)	134	4.0%
Total Legal Consumption	2,532	75.0%
Total Illicit Consumption	846	25.0%
TOTAL CONSUMPTION	3,378	100.0%

Note: numbers may not add up due to rounding

Shares of the overall consumption

BULK TOBACCO IN GREECE IS MAINLY DOMESTIC

- A total of 83.3% of BT is of local origin. This may be due to the high availability of domestic tobacco, since Greece is the largest tobacco producer among the countries considered.¹
- Non-domestic bulk tobacco (BT(ND)) inflows from Albania emerged from the available data.

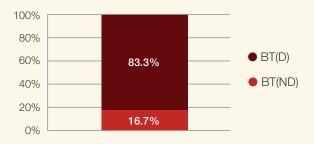


Main flows of bulk tobacco into Greece

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	0
Inflows	134

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

According to the Fine-cut survey's responses, BT is mostly purchased by Greek smokers through courier services (83.3%), while the remainder is bought directly from farmers (16.7%).² Courier services can be the purchase point but also the means of delivering the illegal bulk tobacco. The source of purchase can be the advertisements in social media and the internet. Another study by Nielsen indicates friends and family as the most common channel for obtaining BT.³ An analysis of the open sources also indicates that open-air markets are major distribution points for BT.⁴

- European Commission. 2015. Raw Tobacco Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development
- 2. Fine-cut survey. 2015.
- 3. Nielsen. 2015.
- 4. FAME database. 2016.

GREECE IS A DESTINATION COUNTRY FOR CONTRABAND FINE-CUT TOBACCO

- The majority of contraband (CB) fine-cut tobacco inflows come from the former Yugoslav Republic of Macedonia and Albania, where the prices of the cheapest fine-cut tobacco legal brands (5.0 and 2.4 EUR for a 50-gram pouch, respectively) are much lower than in Greece (11.3 EUR).
- The available data does not provide any evidence of CB fine-cut tobacco outflows originating from Greece.

A possible explanation may be that the price of the cheapest tobacco brand in Greece (11.3 EUR) is the highest in the region.

• Evidence of non-domestic legal (ND(L)) fine-cut tobacco consumption in Greece shows inflows coming mainly from the United Kingdom. These flows are likely to be related to tourism.⁵ Some outflows to Albania are also recorded.

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Greece



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0
Inflows	44

ND(L) FLOWS	Tonnes
Outflows	18
Inflows	131

- 5. UNWTO. 2015. "Compendium of Tourism Statistics Dataset 2014."
- 6. NIELSEN (2015). Know category shoppers, grow your sales.
- Research findings on Unbranded Loose Tobacco and Non-domestic Cigarettes & Tobacco

Counterfeit

According to a Nielsen study, there is evidence of counterfeit cut tobacco in the Greek market. In particular, 1% of the adult smokers interviewed declared that they had used counterfeit tobacco products at least once in their lives.⁶

168.2 mn EUR

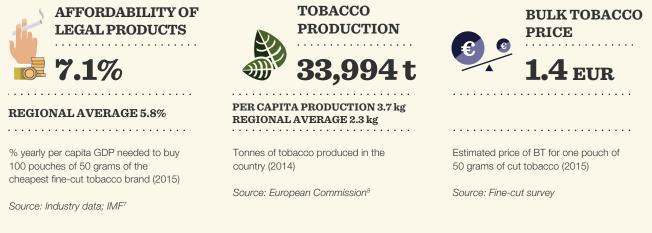
Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 168.2 mn EUR.

About 79% of these revenue losses (132.9 mn EUR) are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- Greece is the largest tobacco producer among the countries considered, and this may contribute to the availability of BT in the country (33,994 tonnes in 2014).
- The estimated price of BT (1.4 EUR for a 50-gram pouch) in Greece is much lower than the legal one (11.3 EUR for the cheapest brand).
- The legal fine-cut tobacco products in Greece are less affordable than the regional average.



CONSUMERS

BT smokers are generally older, less affluent, and more likely to be unemployed than smokers of branded tobacco.⁹

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (50.7%) / Female (49.3%)	Male (57.1%) / Female (42.9%)
AGE	25-34 (31.8%)	55-64 (42.9%)
EDUCATION ¹⁰	High school (56.1%)	High school (57.1%)
JOB	In full-time employment (60.5%)	In full-time employment (42.9%)
MONTHLY HOUSEHOLD INCOME	1,057 EUR	1,000 EUR
% UNEMPLOYED	7.1%	7.1%

SEIZURES

Two of the main tobacco seizures in 2015:11

- 1. More than 4 tonnes of bulk tobacco were seized in Agrinio. Police and Customs officers searched a house and a warehouse of a 53-year-old man and found tobacco leaves and cut tobacco, one cutting machine and a scale.
- 2. A total of 5 tonnes of tobacco leaves, and 0.8 tonnes of bulk tobacco were seized in several locations in the area of Agrinio in May 2016. Police dismantled an organised criminal gang involved in the illicit trading of huge quantities of bulk tobacco. Police estimated that the gang, which had been operating for 18 months before being arrested, sold an average of 2 tonnes of bulk tobacco per month in 2015.

9. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 FAME database. 2016. crime_®tech

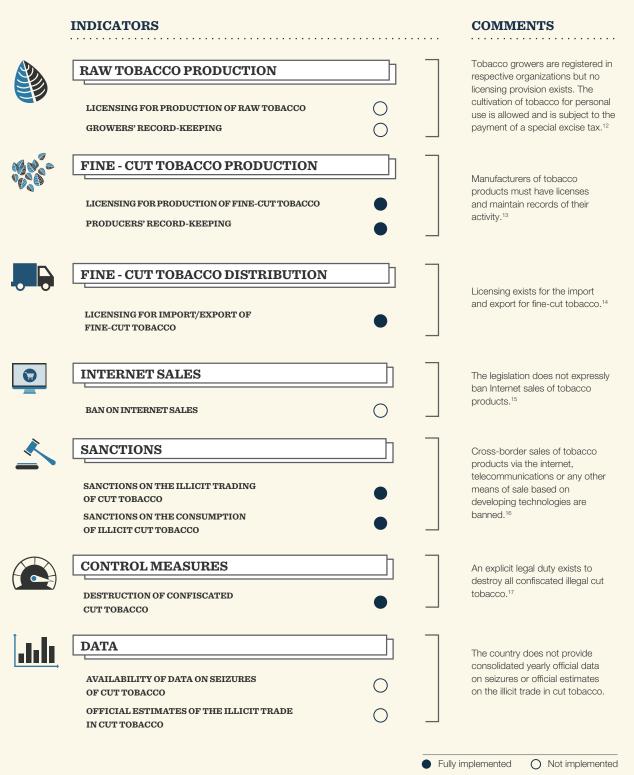
^{7.} IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

European Commission. 2015. Raw Tobacco – Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Greece.

Cut tobacco regulation in Greece



Greece signed the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products in 2013 but has not yet ratified it. A draft law of June 2016 aims to enhance the fight against the illicit trade of tobacco and tobacco products, and to establish a coordination office for combating its trafficking. Additionally, the new law against tobacco illicit trade provides the licensing across the supply chain.

12. Art. 98 Customs Code
 13. Art 100a Customs Code
 14. Law 100A Customs Code

15. Article 4 Law 4410 of 2016
 16. Art. 155 and 157 Customs Code
 17. Art. 171 §. 4 Customs Code





KEY FINDINGS



Share of illicit cut tobacco





Potential revenue losses due to illicit cut tobacco (≈ 18.8 bn HUF)



100%

Bulk tobacco of domestic origin

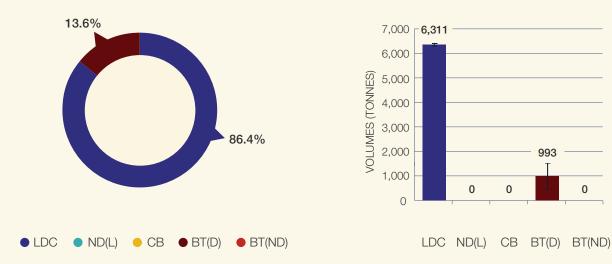


Affordability

Legal fine-cut tobacco in Hungary is highly affordable

13.6% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The overall estimated volume of cut tobacco smoked in Hungary during 2015 is 7,304 tonnes.
- In the legal market, MYO consumption is almost exclusively present.
- 13.6% of the total cut tobacco consumption is estimated to be illicit, which equals to approximately 993 tonnes of cut tobacco.
- Hungary presents a low level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- All of the illicit cut tobacco consumed in Hungary is bulk tobacco (BT).



Shares of the overall consumption

Cut tobacco consumption by types and volumes

0

Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	6,311	86.4%
Non-Domestic Legal - ND(L)	0	0.0%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	993	13.6%
Non-Domestic Bulk tobacco - BT(ND)	0	0.0%
Total Legal Consumption	6,311	86.4%
Total Illicit Consumption	993	13.6%
TOTAL CONSUMPTION	7,304	100.0%

Note: numbers may not add up due to rounding

ALL OF THE BULK TOBACCO IN HUNGARY IS DOMESTIC

- All of the BT consumed in Hungary is produced and sold locally.
- The available data does not provide any evidence of non-domestic bulk tobacco (BT(ND)) inflows into Hungary. Some evidence of BT outflows to Romania emerges.

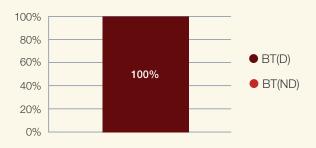
Main flows of bulk tobacco out of Hungary



Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes	
Outflows	87	
Inflows	0	

Share of domestic and non-domestic bulk tobacco



HUNGARY IS A SOURCE COUNTRY OF CONTRABAND FINE-CUT TOBACCO

- The available data does not provide any evidence of contraband (CB) fine-cut tobacco inflows.
- Romania and, to a lesser extent, Slovakia and Slovenia are the main destinations of CB fine-cut tobacco products originating from Hungary.
- These outflows are presumably price-related given that the price of the cheapest tobacco brand in Hungary (3.4 EUR for a 50-gram pouch) is significantly lower than that of the cheapest brand in Romania (6.6 EUR) and in Slovenia (6.4 EUR).¹
- Some non-domestic legal (ND(L)) fine-cut tobacco outflows to Romania, Slovakia and Slovenia have also emerged.

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Hungary



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	157
Inflows	0

(NDL) FLOWS	Tonnes
Outflows	25
Inflows	0

 These outflows are validated by some industry data about the sales of fine-cut products in Hungary. The regions of Békés, Nógrád and Komárom-Esztergom bordering Romania and Slovakia record a significantly higher volume of sales than the national average.

60.5 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 60.5 mn EUR (\approx 18.8 bn HUF).

All of these revenue losses are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- Hungary's annual volume of tobacco production is lower than the average of the region (10,601 tonnes). Nevertheless, compared to the bordering countries, Hungary seems to have a higher availability of raw tobacco.
- Fine-cut tobacco products in Hungary are more affordable (3.1% of the % yearly per capita GDP) than in most of the other countries in the region (5.8% on average).
- BT price (0.8 EUR for a 50-gram pouch) is three times less than the legal one (3.4 EUR).



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF²



PER CAPITA PRODUCTION 1.0 kg REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the country (2014)

Source: European Commission³



Estimated price of BT for one pouch of 50 grams of cut tobacco (2015)

Source: FAME database

CONSUMERS

Available data does not allow the BT consumers' profile to be identified. As for the consumers of branded tobacco, they are aged between 25 and 34 and are usually employed full-time.⁴

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (46.8%) / Female (53.2%)	-
AGE	25-34 (32.8%)	-
EDUCATION⁵	Technical/Vocational training (38.1%)	-
JOB	In full-time employment (62.5%)	-
MONTHLY HOUSEHOLD INCOME	653 EUR	-
% UNEMPLOYED	8.0%	-

SEIZURES

One of the main tobacco seizures in 2015:6

1. A total of three tonnes of tobacco were seized in Debrecen at the end of May. The Hungarian Tax and Duty Authorities found the tobacco in an abandoned farm that four people had set up as an illicit factory.

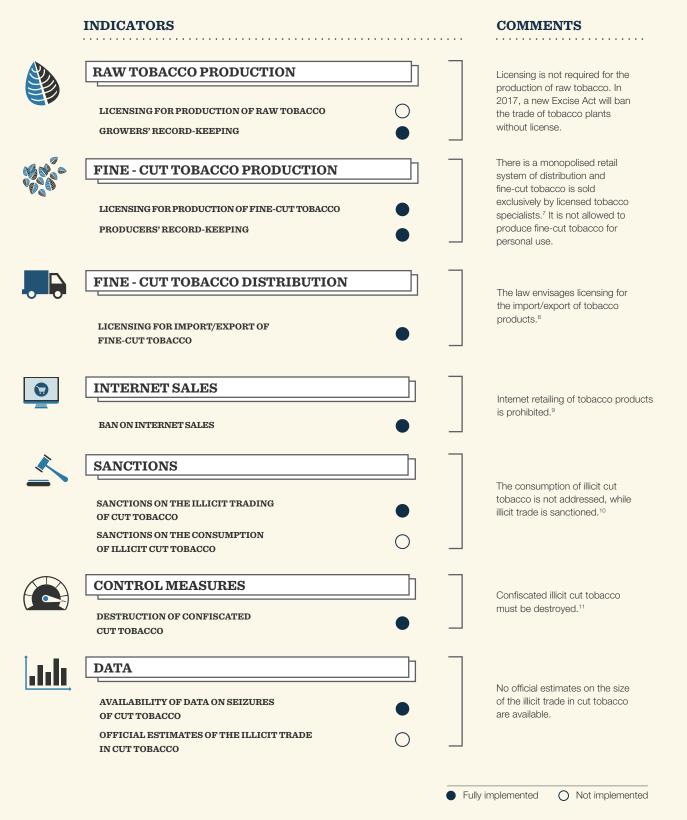
2. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

- European Commission. 2015. Raw Tobacco Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development.
- 4. Fine-cut survey. 2015.
- The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 FAME database. 2016.

APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in Hungary.

Cut tobacco regulation in Hungary



- 7. Art. 35 and 100 Excise Duties Act
- 8. 2012 CXXXIV. Law on Curbing Under-Age Smoking and on the Trade of Tobacco Products and Excise Duties Act
- Section 5 and 6 Act XLII of 1999 on the Protection of Non-Smokers and Certain Regulations on the Consumption and Distribution of Tobacco Products
- 10. Section 119 Act cxxvii of 2003 on Excise Taxes and Special Regulations on the Distribution of Excise Goods
- 11. Section 120 Act cxxvii of 2003 on Excise Taxes and Special Regulations on the Distribution of Excise Goods





KEY FINDINGS



Share of illicit cut tobacco



98.8%

Bulk tobacco of non-domestic origin





Potential revenue losses due to illicit cut tobacco



Price differential

The price of bulk tobacco is less than half of the cheapest legal fine-cut tobacco

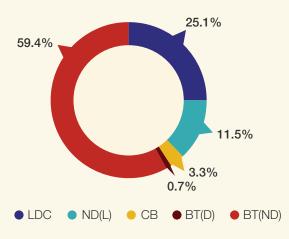
63.4% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

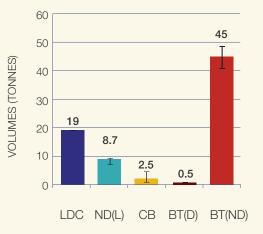
- The total estimated volume of cut tobacco smoked in Kosovo during 2015 is 76 tonnes.¹
- 63.4% of the total cut tobacco consumption is estimated to be illicit. This percentage amounts to approximately 48 tonnes of cut tobacco.

Shares of the overall consumption

- Kosovo experiences a medium level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- Almost all of the illicit cut tobacco consumed in Kosovo is bulk tobacco (BT).

Cut tobacco consumption by types and volumes





Cut tobacco consumption by types, volumes and shares of the overall consumption

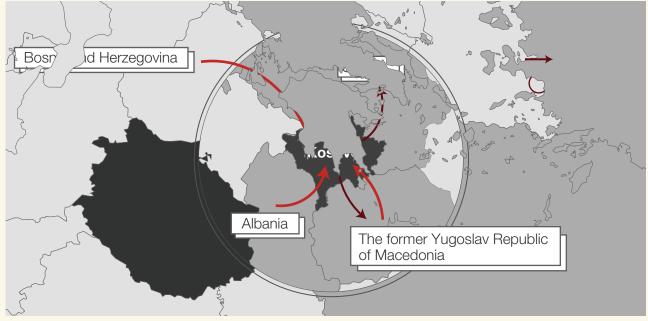
Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	19	25.1%
Non-Domestic Legal - ND(L)	8.7	11.5%
Contraband - CB	2.5	3.3%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	0.5	0.7%
Non-Domestic Bulk tobacco - BT(ND)	45	59.4%
Total Legal Consumption	28	36.6%
Total Illicit Consumption	48	63.4%
TOTAL CONSUMPTION	76	100.0%

Note: numbers may not add up due to rounding

1. No data about the distinction among RYO and MYO legal fine-cut tobacco consumed is available

BULK TOBACCO IN KOSOVO IS MAINLY NON-DOMESTIC

- 98.8% of the BT consumed in Kosovo is non-domestic.
- The main inflow of non-domestic bulk tobacco (BT(ND)) originates from the former Yugoslav Republic of Macedonia, where the yearly volume of tobacco production is one of the highest in the region.²
- Albania and Bosnia and Herzegovina are also sources of BT(ND).
- According to available data, Serbia and the former Yugoslav Republic of Macedonia are among the main destination countries for Kosovar BT.

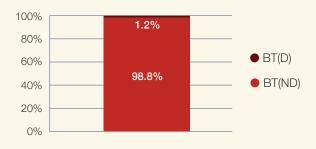


Main flows of bulk tobacco into and out of Kosovo

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	107
Inflows	45

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

According to the Fine-cut survey's findings, open-air markets (91.4%) constitute the main distribution points of BT in Kosovo.³

 MAKStat Database 2016. "Crop production, by years, by regions." MAKStat Database

3. Fine-cut survey. 2015.

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KOSOVO IS A DESTINATION COUNTRY FOR NON-DOMESTIC FINE-CUT TOBACCO

- An inflow of contraband (CB) fine-cut tobacco from Albania emerges from the data available.
- Some evidence of non-domestic legal (ND(L)) fine-cut tobacco consumption in Kosovo emerges, mainly identifiable as Duty Free.



Main flows of contraband and non-domestic legal fine-cut tobacco into Kosovo

Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes	
Outflows	0	
Inflows	2.5	

ND(L) FLOWS	Tonnes	
Outflows	0	
Inflows	8.7	

2.1 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 2.1 mn EUR in Kosovo.

Almost all of these revenue losses are due to the consumption of nondomestic bulk tobacco (BT(ND)).

DRIVERS OF ILLICIT CONSUMPTION

- The price of the cheapest fine-cut tobacco legal brand (3.4 EUR for a 50-gram pouch) is more than twice the estimated price of BT (1.4 EUR).
- Fine cut-tobacco in Kosovo is significantly less affordable than in the other countries considered

(9.2%, compared to 5.8% on average in the region). This may increase the demand for illicit cut tobacco.

• Although Kosovo is a tobacco producer, official sources do not report the quantity produced.



Source: Fine-cut survey

CONSUMERS

Source: Industry data; IMF4

Based on the available data, it is not possible to determine the branded tobacco consumers' profile. As for BT smokers, they are mainly men who are over 55 years old and have a medium-low level of education.⁵

SEX-Male (92.9%)AGE-55-64 (41.4%)EDUCATION*-Secondary school (61.6%)JOB-In full-time employment (47.5%)MONTHLY HOUSEHOLD INCOME-282 EUR% UNEMPLOYED-12.1%		BRANDED FINE-CUT TOBACCO	BULK TOBACCO
EDUCATION ⁶ Secondary school (61.6%) JOB In full-time employment (47.5%) MONTHLY HOUSEHOLD INCOME 282 EUR	SEX	-	Male (92.9%)
JOB In full-time employment (47.5%) MONTHLY HOUSEHOLD INCOME 282 EUR	AGE	-	55-64 (41.4%)
MONTHLY HOUSEHOLD INCOME - 282 EUR	EDUCATION ⁶	-	Secondary school (61.6%)
	JOB	-	In full-time employment (47.5%)
% UNEMPLOYED - 12.1%	MONTHLY HOUSEHOLD INCOME	-	282 EUR
	% UNEMPLOYED	-	12.1%

4. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

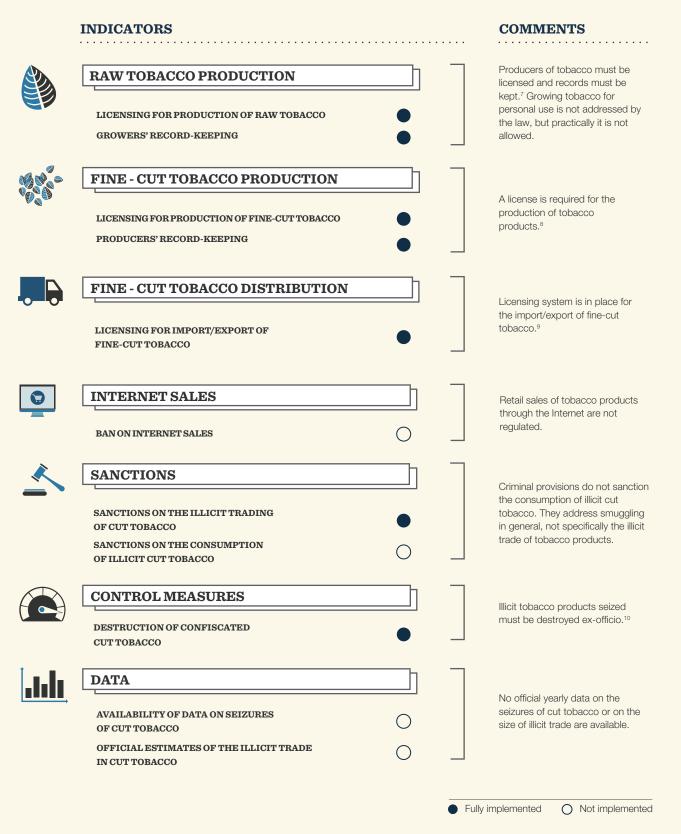
5. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Kosovo.

Cut tobacco regulation in Kosovo



7. Art. 4 and 8 Law No. 04/L – 041 on Production, Collection, Processing and Trading of Tobacco

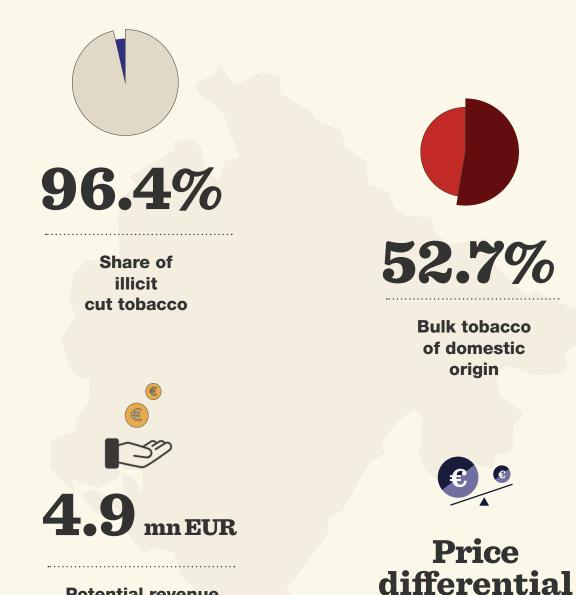
8. Art. 11 Law No. 04/L-021 on Excise on Tobacco Products

 9. Art. 11 Law No. 04/L-021 on Excise on Tobacco Products
 10. Art. 4 & 5 Administrative Instruction on Seizure and Destruction of Tobacco Products

MONTENEGRO



KEY FINDINGS



Potential revenue losses due to illicit cut tobacco

crime_«tech

The price of bulk tobacco is one-third of the cheapest legal

fine-cut tobacco

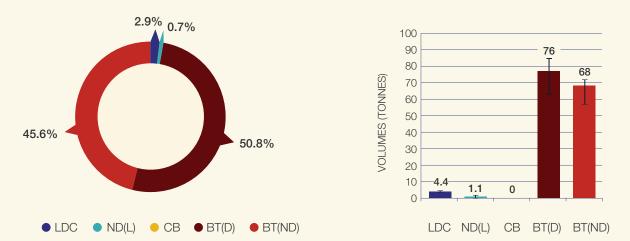
96.4% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The total estimated volume of cut tobacco consumed in Montenegro during 2015 is 150 tonnes.
- In the legal market, the RYO consumption level is slightly higher than the MYO one.
- 96.4% of total cut tobacco consumption is estimated to be illicit. This percentage corresponds to approximately 145 tonnes of cut tobacco.

Shares of the overall consumption

- Montenegro experiences a high level of illicit cut tobacco consumption compared to the other markets considered (see p.15).
- All of the illicit cut tobacco consumed in Montenegro is bulk tobacco (BT).

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	4.4	2.9%
Non-Domestic Legal - ND(L)	1.1	0.7%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	76	50.8%
Non-Domestic Bulk tobacco - BT(ND)	68	45.6%
Total Legal Consumption	5.5	3.6%
Total Illicit Consumption	145	96.4%
TOTAL CONSUMPTION	150	100.0%

Note: numbers may not add up due to rounding

crime «tech

APPROXIMATELY A HALF OF BULK TOBACCO IN MONTENEGRO IS NON-DOMESTIC

- 47.3% of the BT is non-domestic. This may be due to the limited availability of tobacco, as Montenegro is among the smallest producers of tobacco in the countries considered.
- Non-domestic bulk tobacco (BT(ND)) inflows originate mainly from Albania and Bosnia and Herzegovina. The yearly level of tobacco production in both of these

countries (1,735 and 1,740 tonnes, respectively) is approximately seven times higher than in Montenegro (270 tonnes).¹

• The available data indicates Bosnia and Herzegovina and Serbia as the main destination countries for BT outflows originating in Montenegro.



Main flows of bulk tobacco into and out of Montenegro

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	53
Inflows	68

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Based on the Fine-cut survey's findings, open-air markets (68.6%) and, to a lesser degree, relatives, friends, and colleagues (15.7%) are the channels through which Montenegrin smokers purchase BT.²

crime_«tech

 Agroweb.org. 2016. "Restarting the Tobacco Business." Agroweb. org; FAOSTAT. 2014. "Montenegro: Tobacco, Production Quantity (Tons)." Food and Agriculture Organization of the United Nations -Statistics Division; Ministry of Foreign Trade and Economic Relations. 2015. ANNUAL REPORT Agriculture, Food and Rural Development of Bosnia and Herzegovina for 2014. Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina

2. Fine-cut survey. 2015.

NON-DOMESTIC CONSUMPTION ID DUE TO LEGAL CROSS-BORDERS PURCHASES

- The available data does not provide any evidence of contraband (CB) fine-cut-tobacco inflows or outflows.
 A possible explanation may be that the neighbouring countries have either similar or lower prices for tobacco products.
- An inflow of non-domestic legal (ND(L)) fine-cut tobacco from Serbia emerges from the information available.



Main flows of non-domestic legal fine-cut tobacco into Montenegro

Total inflows and outflows of non-domestic legal fine-cut tobacco, volumes (tonnes)

ND(L) FLOWS	Tonnes
Outflows	0
Inflows	1.1

4.9 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 4.9 mn EUR.

About a half of this amount (2.6 mn EUR) is due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The price of BT in Montenegro (1.0 EUR for a 50gram pouch) is three times lower than the cheapest legal fine-cut tobacco (3.0 EUR).
- The affordability of legal fine-cut is close to the average of the countries considered.
- Montenegro is the smallest tobacco producer among the countries considered.



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF³



PER CAPITA PRODUCTION 0.5 kg REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the country (2013)

Source: FAOSTAT⁴



Source: Fine-cut survey

CONSUMERS

BT tobacco smokers are more likely to be male, younger and more employed but with a lower monthly income than are the consumers of branded fine-cut tobacco.⁵

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (50.0%) / Female (50.0%)	Male (63.5%)
AGE	25-44 (61.5%)	25-34 (37.8%)
EDUCATION⁶	High school (53.8%)	College (43.2%)
JOB	In full-time employment (42.3%)	In full time employment (45.9%)
MONTHLY HOUSEHOLD INCOME	817 EUR	736 EUR
% UNEMPLOYED	19.2%	8.1%

3. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

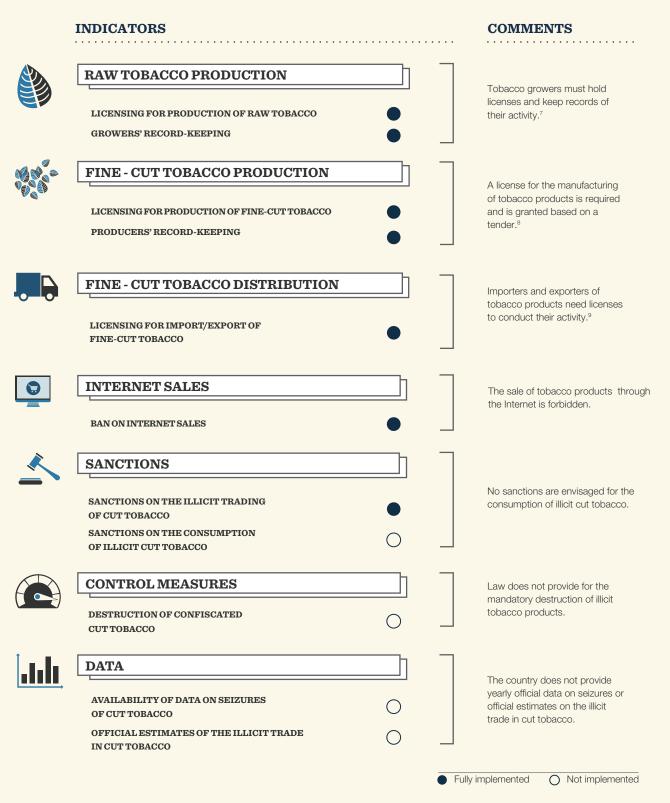
 FAOSTAT. 2014. "Montenegro: Tobacco, Production Quantity (Tons)." Food and Agriculture Organization of the United Nations - Statistics Division. 5. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university. crime «tech

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Montenegro.

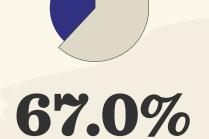
Cut tobacco regulation in Montenegro



Montenegro signed the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products in 2013 but has not yet ratified it.



KEY FINDINGS



Share of illicit cut tobacco



80.7%

Bulk tobacco of domestic origin





Potential revenue losses due to illicit cut tobacco (≈ 1.8 bn PLN)



Availability

Poland is the third largest tobacco producer in the region

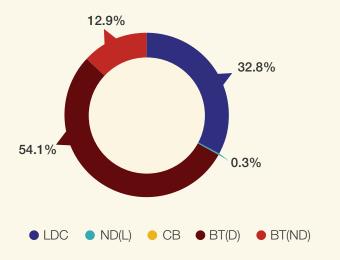
crime_«tech

67.0% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

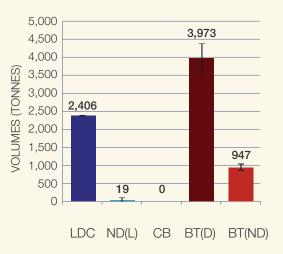
- The overall estimated volume of cut tobacco consumed in Poland during 2015 is 7,346 tonnes.¹
- Among legal fine-cut tobacco products, MYO consumption is highly prevalent.

Shares of the overall consumption

- 67.0% of the overall cut tobacco consumption is estimated to be illicit, which equals to approximately 4,921 tonnes of cut tobacco.
- Poland has a medium level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- All of the illicit cut tobacco consumed in Poland is bulk tobacco (BT).



Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	2,406	32.8%
Non-Domestic Legal - ND(L)	19	0.3%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	3,973	54.1%
Non-Domestic Bulk tobacco - BT(ND)	947	12.9%
Total Legal Consumption	2,425	33.0%
Total Illicit Consumption	4,921	67.0%
TOTAL CONSUMPTION	7,346	100.0%

Note: numbers may not add up due to rounding

1. The estimate of the total consumption of cut tobacco has been also confirmed by an alternative estimate based on rolling papers and empty tubes sold in the country (see Validation p.127).

BULK TOBACCO IN POLAND IS MAINLY DOMESTIC

- A total of 80.7% of the BT consumed in Poland is of local origin. This may be due to the high availability of tobacco, given that Poland is one of the main producers among the countries considered.¹
- The information available suggests that non-domestic bulk tobacco (BT(ND)) originates mainly from Russia.
- According to the respondents of the Fine-cut survey, Romania and Bulgaria are also possible sources of BT(ND).²

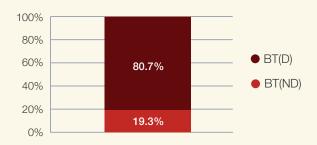


Main flows of bulk tobacco into Poland

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	0
Inflows	947

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

The main distribution points through which Polish consumers purchase BT are open-air markets (58%), followed by door-to-door delivery services (21%), relatives, friends or colleagues (13%), and street vendors (8%).³

 European Commission. 2015. Raw Tobacco – Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development

- 2. Fine-cut survey. 2015.
- 3. Fine-cut survey. 2015.

${\bf INFLOWS\, OF\, NON-DOMESTIC\, FINE-CUT\, TOBACCO\, PRODUCTS\, ARE\, RELATED\, TO\, TOURISM}$

- Available data does not provide any evidence of contraband (CB) fine-cut tobacco inflows or outflows.
- Evidence of non-domestic legal (ND(L)) fine-cut tobacco product consumption in Poland emerges from the information available. Italy is the main source country. This inflow is likely to be related to tourism.

Main flows of non-domestic legal fine-cut tobacco into Poland



Total inflows and outflows of non-domestic legal fine-cut tobacco, volumes (tonnes)

(NDL) FLOWS	Tonnes
Outflows	0
Inflows	19

428.3 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 428.3 mn EUR (\approx 1.8 bn PLN).

About 81% of these revenue losses (345.8 mn EUR \approx 984.7 mn PLN) are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The price for the cheapest fine-cut tobacco legal brand (2.6 EUR \approx 10.7 PLN) is almost two times higher than the estimated price of BT (1.5 EUR \approx 6.4 PLN).
- The legal fine-cut tobacco products in Poland are the most affordable among the countries considered.
- Poland is one of the main tobacco producers among the 15 countries considered. This may contribute to the availability of BT(D).



BT tobacco smokers are younger, are less educated, and have lower incomes than smokers of branded tobacco. Unlike branded consumers, they are mostly men.⁶

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (58.5%) / Female (41.5%)	Male (87.0%)
AGE	35-54 (48.0%)	25-34 (60.9%)
$EDUCATION^{7}$	Secondary school (47.7%)	Primary school (52.2%)
JOB	In full-time employment (67.1%)	In full-time employment (52.2%)
MONTHLY HOUSEHOLD INCOME	684 EUR	586 EUR
% UNEMPLOYED	6.9%	17.4%

SEIZURES

According to the Ministry of Finance, the total amount of tobacco seized was 1,290.5 tonnes in 2015.⁸ The following are brief descriptions of three of the main tobacco seizures in 2015:⁹

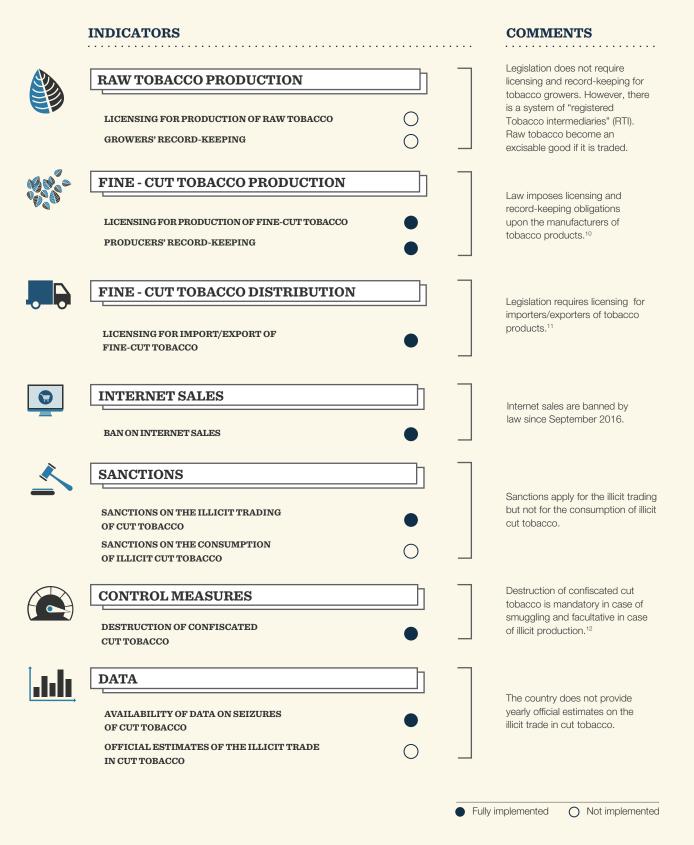
1. A total of 50 tonnes of dried tobacco were seized in Iława at the beginning of July. Polish Police and Customs officers found the tobacco in an illicit factory that five people aged between 23 and 45 were using to process tobacco.

- 2. A total of 5.5 tonnes of cut tobacco were seized in Ustka in August. Border guard officers found the tobacco in a clothes shop.
- 3. More than 2.5 tonnes of dried and cut tobacco were seized in Oborniki at the beginning of May. Polish Police and Customs officers found and seized the tobacco in an illicit factory that two people had set up to manufacture tobacco products. Besides tobacco, authorities also seized two professional machines for cutting dried tobacco.
- 4. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- European Commission. 2015. Raw Tobacco Production Statistics – 2014 - 2003 Harvests. European Commission, Directorate-General for Agriculture and Rural Development
- 6. Fine-cut survey. 2015.
- The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 Ministry of Finance. 2015.
- 9 FAME database 2016

APPENDIX: REGULATION

The following table presents the assessment of the regulation regarding cut tobacco in Poland.

Cut tobacco regulation in Poland



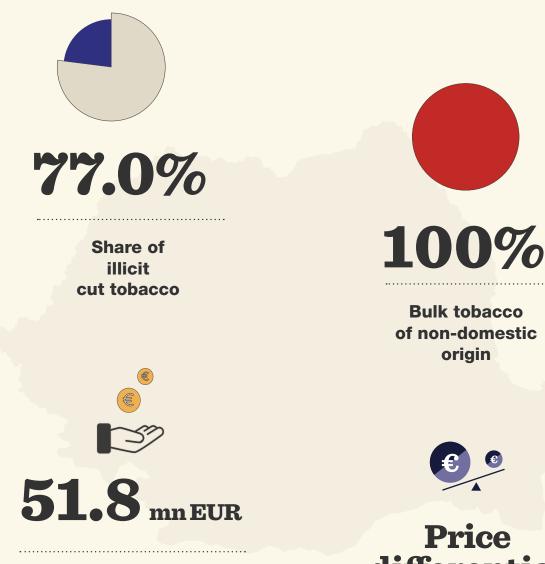
11. Art. 13 Excise Tax Law

12. Art. 29, 31.6, 63, 64, 86 Criminal Fiscal Code





KEY FINDINGS



Potential revenue losses due to illicit cut tobacco (≈228.4 mn RON)



Price differential

The price of bulk tobacco is almost one-fifth of the cheapest legal fine-cut tobacco

77.0% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

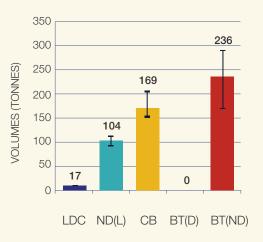
- The estimated total volume of cut tobacco smoked in Romania during 2015 is 527 tonnes.
- In the legal market, RYO consumption is prevalent.
- 77.0% of total cut tobacco consumption is estimated to be illicit. This share corresponds to approximately 406 tonnes of cut tobacco.

Shares of the overall consumption

- Romania registers a high proportion of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- Bulk tobacco (BT) is the most consumed illicit type of cut tobacco (44.9% of the overall cut tobacco consumption).

44.9% • LDC • ND(L) • CB • BT(D) • BT(ND)

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	17	3.2%
Non-Domestic Legal - ND(L)	104	19.8%
Contraband - CB	169	32.1%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	0	0.0%
Non-Domestic Bulk tobacco - BT(ND)	236	44.9%
Total Legal Consumption	121	23.0%
Total Illicit Consumption	406	77.0%
TOTAL CONSUMPTION	527	100.0%

Note: numbers may not add up due to rounding

BULK TOBACCO IN ROMANIA IS NON-DOMESTIC

- The bulk tobacco (BT) consumed in Romania is non-domestic. This may be due to the low availability of local tobacco given that Romania is one of the smallest tobacco producers in the region (1,602 tonnes in 2014, compared to 10,601 tonnes on average).¹
- Non-domestic bulk tobacco (BT(ND)) inflows originate mainly from Hungary and Turkey.
- According to available data, some inflows of BT originate also from Bulgaria and Russia.

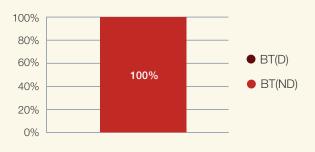


Main flows of bulk tobacco into Romania

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	0
Inflows	236

Share of domestic and non-domestic bulk tobacco



Where do consumers buy illicit tobacco?

According to the Fine-cut survey's findings, street vendors (69.7%) and online shops (35.7%) are the main channels through which Romanian smokers can purchase CB fine-cut tobacco. Other possible sources are relatives and friends (22.7%) and open-air markets (11.6%). Street vendors (61.9%) and relatives, friends or colleagues (38.1%) are the main channels through which Romanian smokers purchase BT.²

2. Fine-cut survey. 2015.

^{1.} Ministry of Agriculture and Rural Development. 2016. "Tobacco and Hops."

ROMANIA IS A DESTINATION COUNTRY FOR CONTRABAND FINE-CUT TOBACCO

- Available data shows a large volume of contraband (CB) fine-cut tobacco inflows into Romania, mainly from Hungary.
- These flows are likely to be price related because the cheapest tobacco brand in Romania (6.6 EUR for a 50-gram pouch) costs approximately twice as much as the Hungarian one (3.4 EUR).
- To a lesser extent, Serbia and Bulgaria are also source countries for CB tobacco. Romania is one of the highest-priced tobacco markets in the region.
- Evidence of non-domestic legal (ND(L)) fine-cut tobacco consumption in Romania also emerges. Italy is one of the main sources. Another significant share is identifiable as Duty Free.

Main flows of contraband and non-domestic legal fine-cut tobacco into Romania



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0
Inflows	169

(NDL) FLOWS	Tonnes
Outflows	0
Inflows	104

51.8 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 51.8 mn EUR (\approx 228.4 mn RON). This value amounts to approximately 35.3 mn EUR (\approx 156.5 mn RON) without considering VAT.

About 58% of these revenue losses (30.2 mn EUR \approx 133.1 mn RON) is due to the consumption of non-domestic bulk tobacco (BT(ND)).

DRIVERS OF ILLICIT CONSUMPTION

- The price of the cheapest fine-cut tobacco legal brand (6.6 EUR ≈ 29.0 RON for one 50-gram pouch) in Romania is five times higher than the estimated price of bulk tobacco (1.4 EUR ≈ 6.3 RON).
- Legal fine-cut tobacco in Romania is less affordable than the average of the countries considered (8.2% and 5.8%, respectively).
- AFFORDABILITY OF LEGAL PRODUCTS 8.2%

REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF³

CONSUMERS



PER CAPITA PRODUCTION 0.1 kg REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the country (2015)

Source: Ministry of Agriculture and Rural Development⁴



Estimated price of BT for one pouch of 50 grams of cut tobacco (2015)

Source: Fine-cut survey

 Romania is one of the minor producers of tobacco in the countries considered. This may limit the availability

demand for illicit cut tobacco products coming from

of bulk tobacco within the country, thus fostering

abroad - i.e. CB and BT(ND).

BT smokers are generally less affluent but are more likely to be employed than the consumers of branded cut tobacco.⁵

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (73.8%)	Male (66.7%)
AGE	25-34 (51.97%)	25-34 (33.3%)
EDUCATION ⁶	Technical/Vocational training (43.4%)	Technical/Vocational training (57.1%)
JOB	In full-time employment (79.2%)	In full-time employment (71.4%)
MONTHLY HOUSEHOLD INCOME	705 EUR	567 EUR
% UNEMPLOYED	5.4%	4.8%

SEIZURES

The following is one of the main tobacco seizures in 2015:7

1. More than two tonnes of tobacco were seized in Bucharest, Ilfov and Prahova at the end of June. Romanian Police found tobacco in several residential premises used by an organised crime group involved in the illegal importation (from Turkey) and retailing (online) of cut tobacco products. Besides tobacco, the Romanian Police also found and seized several machines for cutting and processing tobacco.

4. Ministry of Agriculture and Rural Development. 2016. "Tobacco and Hops."

5. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.

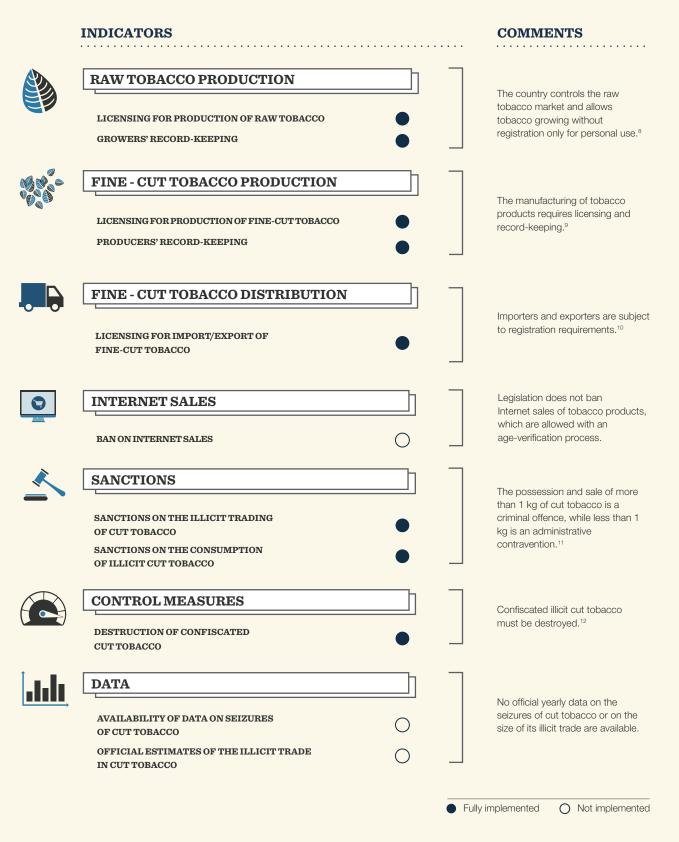
7. FAME database. 2016.

^{3.} IMF. 2016. "World Economic Outlook Database." International Monetary Fund.

APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in Romania.

Cut tobacco regulation in Romania



- Law no. 236/2003 on the organization of the raw tobacco market, Art. 435 (9) let. a) of the New Tax Code, Art. 28-30 of Law no. 236/2003
- 9. Art. 362 (1) and 365 Tax Code

- 10. Art. 386 Tax Code
- 11. Art. 449 and 452 Tax Code
- 12. Art. 431 Tax Law; Pt. 158 (6) from the Methodological Norms of the Tax Law





KEY FINDINGS



Share of illicit cut tobacco





Bulk tobacco is the only illicit type of cut tobacco





Potential revenue losses due to illicit cut tobacco (≈ 6.5 bn RSD)



Availability

Serbia is the fifth largest tobacco producer in the region

92.9% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- Estimated total volume of cut tobacco smoked in Serbia during 2015 is 2,101 tonnes.¹
- In the legal market, RYO and MYO consumptions are almost equivalent.
- 92.9% of the overall cut tobacco consumption is estimated to be illicit. This percentage is equal to approximately 1,951 tonnes.

Shares of the overall consumption

- Serbia has a high level of illicit cut tobacco consumption compared to the other countries considered (see p.15).
- According to available data, bulk tobacco (BT) is the only illicit type of cut tobacco consumed.

Cut tobacco consumption by types and volumes

7.0% 0.1% 2500 1.951 2000 **VOLUMES** (TONNES) 1500 92.9% 1000 500 147 3.1 0 0 LDC LDC OB (BT ND(L) CB ΒT ND(L)

Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	147	7.0%
Non-Domestic Legal - ND(L)	3.1	0.1%
Contraband - CB	0	0.0%
Bulk tobacco		
Bulk tobacco - BT ²	1,951	92.9%
Total Legal Consumption	150	7.1%
Total Illicit Consumption	1,951	92.9%
TOTAL CONSUMPTION	2,101	100.0%

Note: numbers may not add up due to rounding

1. Alternative estimates vary from 1,700 to 2,500 tonnes

 The available data does not allow a distinction between domestic bulk tobacco (BT(D)) and non-domestic bulk tobacco (BT(ND)).

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SERBIA IS A SOURCE COUNTRY OF BULK TOBACCO

- Evidences of some relevant inflows of non-domestic bulk tobacco (BT(ND)) emerge, mainly from the former Yugoslav Republic of Macedonia, Bosnia and Herzegovina and, to a lesser extent, Kosovo.
- Bosnia and Herzegovina is also a major destination for BT originating from Serbia.

Romia and Herzeony Kosovo The former Yugoslav Republic of Macedonia

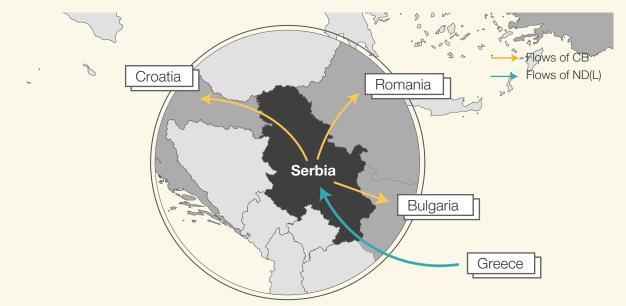
Main flows of bulk tobacco into and out of Serbia

Where do consumers buy bulk tobacco?

Based on the Fine-cut survey's findings, BT is mostly purchased by Serbian smokers at open-air markets (70.8%). For the remaining part, street vendors (19.2%) and relatives, friends or colleagues (8.3%) constitute the informal channels through which Serbian consumers buy BT.³

SERBIA IS A SOURCE COUNTRY FOR CONTRABAND FINE-CUT TOBACCO

- The available data does not provide any evidence of contraband (CB) fine-cut tobacco inflows into Serbia.
- CB fine-cut tobacco outflows originating from Serbia reach Romania or Croatia mainly, and to a lesser extent Bulgaria.
- These countries have higher prices for legal fine-cut tobacco (6.6 EUR, 5.9 EUR and 6.4 EUR, respectively for a 50-gram pouch of the cheapest brand) than Serbia does (2.2 EUR).
- Non-domestic legal (ND(L)) fine-cut tobacco inflows come mainly from Greece.



Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Serbia

Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	27
Inflows	0

ND(L) FLOWS	Tonnes
Outflows	0.7
Inflows	3.1

53.4 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 53.4 mn EUR (\approx 6.5 bn RSD).

All these revenue losses are due to the consumption of bulk tobacco.

DRIVERS OF ILLICIT CONSUMPTION

- The estimated price of BT (0.9 EUR ≈ 102.2 RSD for a 50-gram pouch) in Serbia is approximately three times lower than the legal cheapest fine-cut tobacco (2.2 EUR ≈ 240.0 RSD).
- Legal fine-cut tobacco is more affordable compared



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF⁴

CONSUMERS

to the average of the countries considered (4.3% and 5.8%, respectively).

• Serbia's level of tobacco production (17,292 tonnes) is above the average of the countries considered (10,601 tonnes). This increases the availability of BT in the country.



Source: Fine-cut survey

BT tobacco smokers have a higher level of education, but they are more likely to be unemployed and less affluent than the smokers of the branded ones are.⁶

Source: Ministry of Finance⁵

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (58.9%) / Female (41.1%)	Male (42.5%) / Female (57.5%)
AGE	25-34 (37.4%)	25-34 (28.0%)
EDUCATION ⁷	Primary school (39.3%)	Secondary school (49.2%)
JOB	In full-time employment (46.7%)	In full-time employment (43.0%)
MONTHLY HOUSEHOLD INCOME	496 EUR	416 EUR
% UNEMPLOYED	22.4%	28.0%

SEIZURES

The following are three of the main tobacco seizures in 2015:8

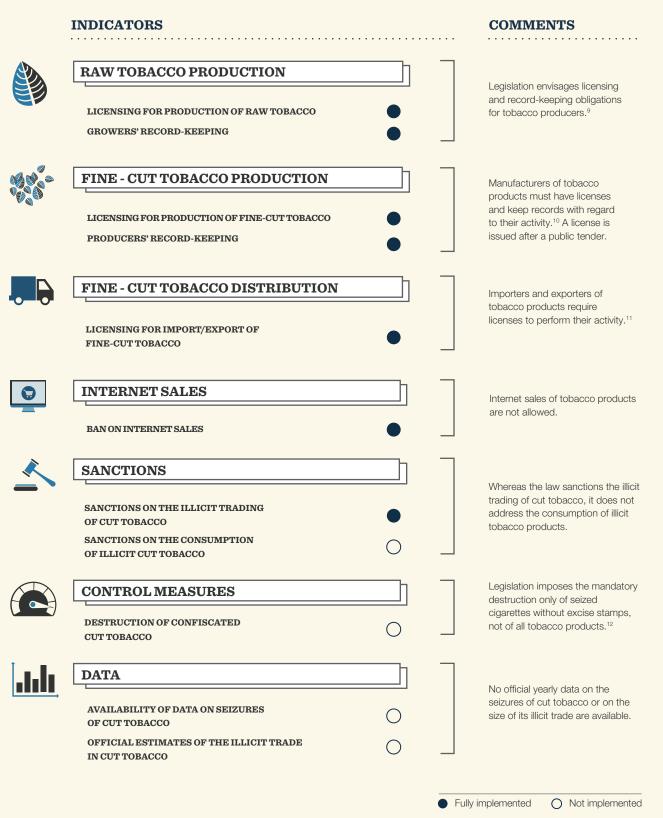
- 1. A total of 1,338 tonnes of dried tobacco were seized in Ljubovija in early January. Serbian Security Information Agency agents and Serbian Tax Administration officers found the illicit product in a processing tobacco plant.
- 2. A total of 20 tonnes of tobacco leaves were seized in Stara Pazova in April. Serbian Police found the tobacco in a warehouse that three people aged between 20 and 39 used to processe tobacco.
- 3. A total of 2.7 tonnes of cut tobacco were seized in Valjevo and Kolubara. Thirteen people (aged between 22 and 60) were accused of being part of a network involved in the smuggling and trading of illicit tobacco across Serbia.
- IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- Republic of Serbia-Ministry of Finance. 2015. The Market of Tobacco and Tobacco Products in the Republic of Serbia, 2014. Ministry of Finance
- 6. Fine-cut survey. 2015.
- The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 FAME database. 2016.

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APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in Serbia.

Cut tobacco regulation in Serbia



Currently, an initiative is in place to amend the tobacco legislation, which focuses on suppressing the illicit tobacco supply. However, at this stage, no official proposal is available.

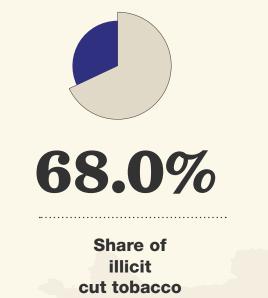
9. Art. 7 and 9 Tobacco Law 10. Art. 7 and 31 Tobacco Law

12. Art. 134 Tax Procedure and Tax Administration Act





KEY FINDINGS





91.0%

Share of bulk tobacco on the illicit consumption





Potential revenue losses due to illicit cut tobacco



Affordability

Legal fine-cut tobacco is highly affordable in Slovakia

68.0% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

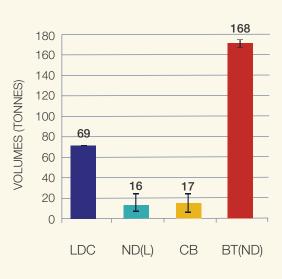
- The overall volume of cut tobacco consumed in Slovakia during 2015 is 271 tonnes.
- In the legal market, the consumption of RYO is higher than that of MYO.
- 68.0% of the total cut tobacco consumption is estimated to be illicit. This share amounts to approximately 184 tonnes.

Shares of the overall consumption

- Slovakia registers a medium level of illicit cut tobacco consumption, compared to the other countries considered (see p.15).
- Bulk tobacco (BT) is the prevalent illicit product.

61.9% • LDC • ND(L) • CB • BT(ND)

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	69	25.7%
Non-Domestic Legal - ND(L)	17	6.3%
Contraband - CB	16	6.1%
Bulk tobacco		
Non-domestic bulk tobacco - BT(ND)1	168	61.9%
Total Legal Consumption	87	32.0%
Total Illicit Consumption	184	68.0%
TOTAL CONSUMPTION	271	100.0%

Note: numbers may not add up due to rounding

SLOVAKIA IS A DESTINATION COUNTRY OF CONTRABAND FINE-CUT TOBACCO

- Almost all of CB fine-cut tobacco inflows into Slovakia come from Hungary.
- Hungary and the Czech Republic are the main sources of non-domestic legal (ND(L)).
- According to available data, outflows of both CB and ND(L) fine-cut tobacco products are absent.

Main flows of contraband and non-domestic legal fine-cut tobacco into Slovakia



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0
Inflows	16

ND(L) FLOWS	Tonnes
Outflows	0
Inflows	17

16.7 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 16.7 mn EUR.

Almost all of these revenue losses (93%) are due to the consumption of BT.

DRIVERS OF ILLICIT CONSUMPTION

• In Slovakia, fine-cut tobacco is more affordable than the average of the countries considered, with a rate of 2.5% against 5.8%.



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF²



PER CAPITA PRODUCTION -REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the country (2014)



Estimated price of BT for one pouch of 50 grams of cut tobacco (2015)

CONSUMERS

Available data does not allow the BT consumers' profile to be identified. Branded tobacco consumers are mainly young men with a medium to high level of education.³

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (69.6%)	-
AGE	25-34 (37.5%)	-
EDUCATION ⁴	High school (46.2%)	-
JOB	In full-time employment (49.2%)	-
MONTHLY HOUSEHOLD INCOME	1,000 EUR	-
% UNEMPLOYED	12.4%	-

SEIZURES

The following are three of the main tobacco seizures in 2015:5

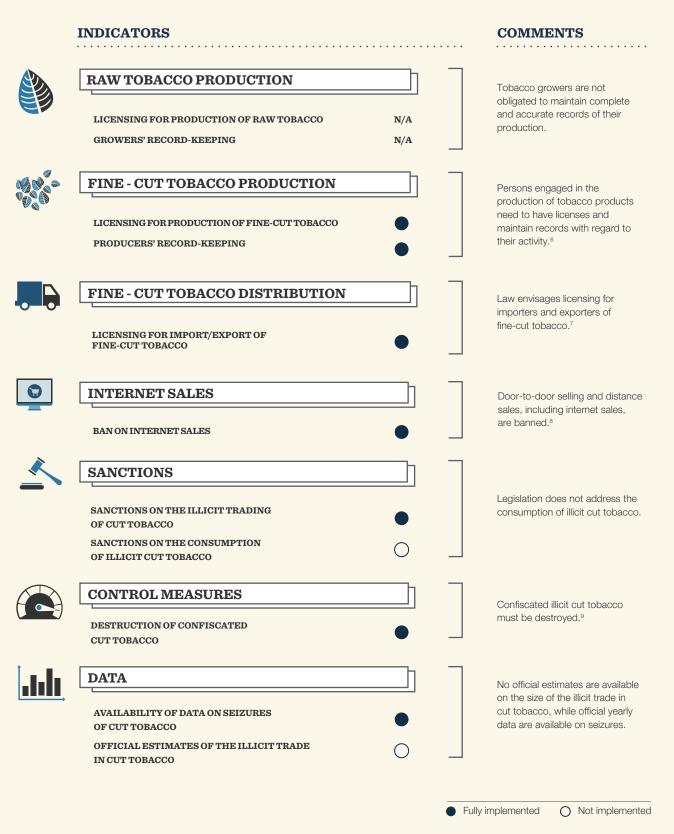
- 1. A total of 1.4 tonnes of tobacco were seized in Košice at the end of January. Slovak Police and Customs officers found the tobacco after searching a car driven by a 45-year-old Ukrainian citizen.
- 2. A total of 0.6 tonnes of cut tobacco and 0.05 tonnes of raw tobacco materials were seized in Veľký Biel at the end of April. Slovak Customs officers discovered the tobacco in the warehouse of a former agricultural cooperative, which a Hungarian citizen had set up as an illicit factory. Besides tobacco, the officers also found some machines for cutting tobacco.
- 3. A total of 0.6 tonnes of tobacco packed in bags of 150 grams each, along with 0.3 tonnes of loose tobacco, were seized in Žiar at the end of May. Slovak Customs officers found the tobacco after inspecting several premises and properties.
- 2. IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- 3. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.
 FAME database, 2016.

APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in Slovakia.

Cut tobacco regulation in Slovakia



6. Article 17, 18 and 34 Law on excise duties on tobacco products 7. Article 9a Law on excise duties on tobacco products 8. Act No 377/2004 on Protection of non-smokers
 9. Paragraph 41 of Act No 106/2004





KEY FINDINGS





Share of illicit cut tobacco





Bulk tobacco of non-domestic origin





Potential revenue losses due to illicit cut tobacco

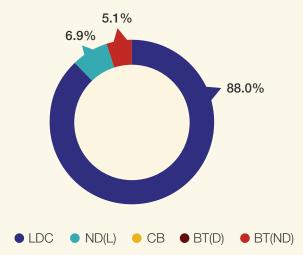


Affordability

Legal fine-cut tobacco in Slovenia is highly affordable

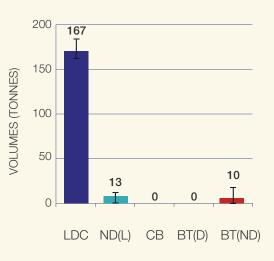
5.1% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The estimated total consumption of cut tobacco during 2015 is 190 tonnes.
- In the legal market, consumption of RYO is prevalent.
- 5.1% of the overall cut tobacco consumption is estimated to be illicit, which equals to approximately 10 tonnes of cut tobacco.
- Slovenia presents a low level of illicit consumption compared to the other countries considered (see p.15).
- Bulk tobacco (BT) is the most smoked illicit type of cut tobacco.



Shares of the overall consumption

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	167	88.0%
Non-Domestic Legal - ND(L)	13	6.9%
Contraband - CB	0	0.0%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	0	0.0%
Non-Domestic Bulk tobacco - BT(ND)	10	5.1%
Total Legal Consumption	180	94.9%
Total Illicit Consumption	10	5.1%
TOTAL CONSUMPTION	190	100.0%

Note: numbers may not add up due to rounding

BULK TOBACCO IN SLOVENIA IS NON-DOMESTIC

- All of the BT consumed in Slovenia is non-domestic, given that there is no tobacco production in the country.
- According to available data, non-domestic bulk tobacco (BT(ND)) originates mainly from Bosnia and

Herzegovina. However, some surveys highlight also the former Yugoslav Republic of Macedonia, Croatia and Serbia as other possible sources of BT(ND).¹

• Slovenia is a transit point of BT destined to the neighbouring countries.

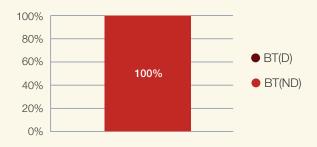


Main flows of bulk tobacco into Slovenia

Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	16
Inflows	10

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Based on a study conducted by Ipsos (2015) in two Slovenian cities, friends (21%), kiosks (21%) and street vendors (16%) are the main channels through which Slovenian smokers purchase BT.²

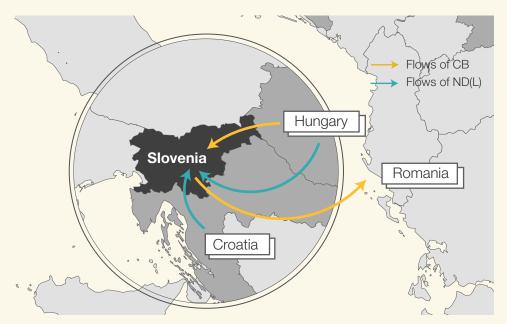
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- 1. Fine-cut survey (2015); IPSOS (2015). Illicit fine-cut tobacco Velenje and Novo mesto. IPSOS Marketing
- 2. IPSOS (2015). Illicit fine-cut tobacco Velenje and Novo mesto. IPSOS Marketing

SLOVENIA IS BOTH A DESTINATION MARKET AND A COUNTRY OF ORIGIN OF CONTRABAND FINE-CUT TOBACCO

- Hungary is the main source of contraband (CB) fine-cut tobacco product. Inflows from Hungary into Slovenia are presumably price related because the price of the cheapest brand (3.4 EUR for a 50-gram pouch) in the former is lower than in the latter (6.4 EUR).
- An outflow of CB Slovenian fine-cut tobacco to Romania has emerged.
- According to the available data, Croatia and Hungary are the main sources of non-domestic legal ND(L) finecut tobacco.

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of Slovenia



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0.9
Inflows	0

ND(L) FLOWS	Tonnes
Outflows	0.4
Inflows	14

1.2 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 1.2 mn EUR.

Almost all of these revenue losses are due to the consumption of BT(ND).

DRIVERS OF ILLICIT CONSUMPTION

- In Slovenia, fine-cut tobacco is more affordable (3.5% of the per-capita income) than in the other countries considered (5.8% on average).
- There is no tobacco production in Slovenia. This may increase the demand for illicit products from abroad.



REGIONAL AVERAGE 5.8%

% yearly per capita GDP needed to buy 100 pouches of 50 grams of the cheapest fine-cut tobacco brand (2015)

Source: Industry data; IMF³



PER CAPITA PRODUCTION -REGIONAL AVERAGE 2.3 kg

Tonnes of tobacco produced in the country (2014)



Estimated price of BT for one pouch of 50 grams of cut tobacco (2015)

CONSUMERS

available data doES not allow the BT tobacco consumers' profile to be identified. Branded tobacco consumers are mainly young students with a medium to high level of education.⁴

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (58.3%) / Female (41.7%)	-
AGE	19-24 (45.8%)	-
EDUCATION ⁵	Technical/Vocational training (35.4%)	-
JOB	Student/In full-time education (42.7%)	-
MONTHLY HOUSEHOLD INCOME	1,465 EUR	-
% UNEMPLOYED	15.6%	-

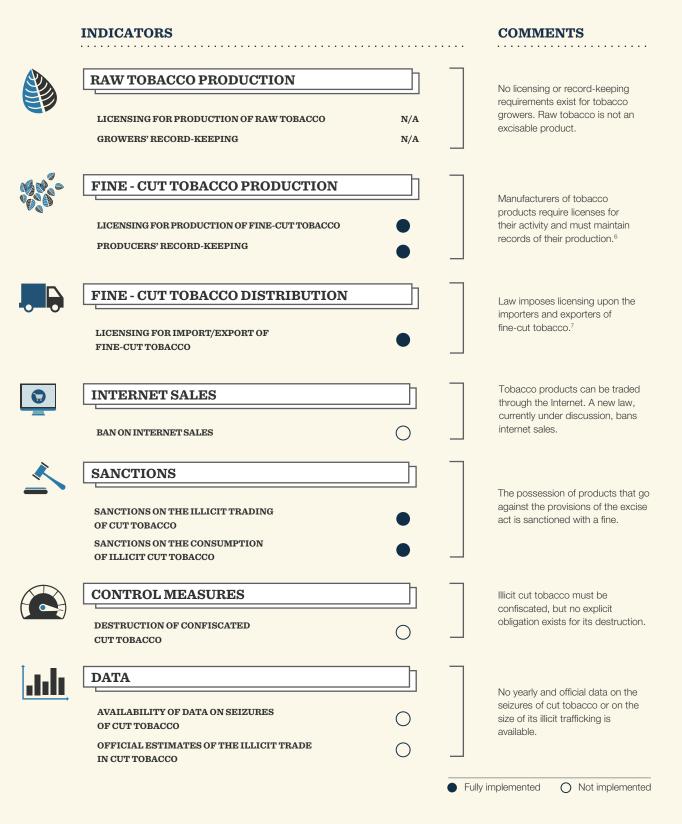
- IMF. 2016. "World Economic Outlook Database." International Monetary Fund.
- 4. Fine-cut survey. 2015.

 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.

APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in Slovenia.

Cut tobacco regulation in Slovenia



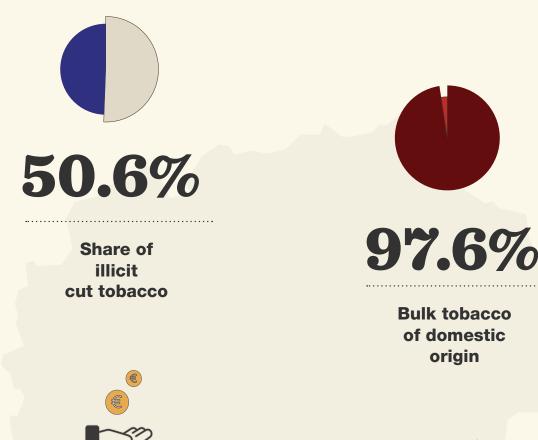
Slovenia signed the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products in 2014 but has not yet ratified it.

7. Art. 54 and 50 Rules implementing the Law on excise duty

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA



KEY FINDINGS





2.1 mn EUR

Potential revenue losses due to illicit cut tobacco (≈ 131.7 mn MKD)



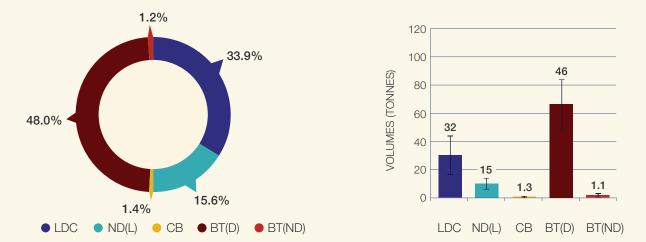
Affordability

Macedonian legal fine-cut tobacco is the least affordable in the region

50.6% OF TOTAL CUT TOBACCO CONSUMPTION IS ILLICIT

- The estimated total consumption of cut tobacco during 2015 is 95 tonnes.
- In the legal market MYO and RYO consumptions are almost equivalent.
- 50.6% of the overall cut tobacco consumption is estimated to be illicit, which equals to approximately 48 tonnes of cut tobacco.
- Illicit cut tobacco has reached a medium level of consumption in the former Yugoslav Republic of Macedonia compared to other countries considered (see p.15).
- Bulk tobacco (BT) is the most smoked illicit type of tobacco.

Cut tobacco consumption by types and volumes



Cut tobacco consumption by types, volumes and shares of the overall consumption

Cut tobacco consumption	Tonnes	Shares (%)
Branded Fine-cut tobacco		
Legal Domestic Consumption - LDC	32	33.9%
Non-Domestic Legal - ND(L)	15	15.6%
Contraband - CB	1.3	1.4%
Bulk tobacco		
Domestic Bulk tobacco - BT(D)	46	48.0%
Non-Domestic Bulk tobacco - BT(ND)	1.1	1.2%
Total Legal Consumption	47	49.4%
Total Illicit Consumption	48	50.6%
TOTAL CONSUMPTION	95	100.0%

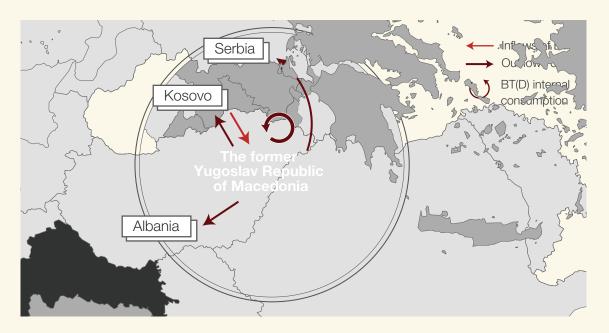
Note: numbers may not add up due to rounding

Shares of the overall consumption

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA IS A SOURCE COUNTRY FOR BULK TOBACCO

- A total of 97.6% of the BT consumed in the former Yugoslav Republic of Macedonia originates within the country's borders. The country is one of the largest tobacco producers in the region.¹
- The total volume of BT exported from the former Yugoslav Republic of Macedonia outweighs the imported one by far.
- Serbia and, to a lesser degree, Kosovo and Albania are the main destination countries.
- Kosovo is also a country of origin of non-domestic bulk tobacco (BT(ND)) in the former Yugoslav Republic of Macedonia.

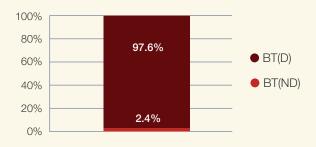
Main flows of bulk tobacco into and out of the former Yugoslav Republic of Macedonia



Total inflows and outflows of bulk tobacco, volumes (tonnes)

BT FLOWS	Tonnes
Outflows	16
Inflows	10

Share of domestic and non-domestic bulk tobacco



Where do consumers buy bulk tobacco?

Macedonian smokers mainly purchase BT tobacco at open-air markets (70.5%). Street vendors (29.5%) are the other channel through which they buy the BT products.²

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MAKStat Database 2016. "Crop production, by years, by regions." MAKStat Database

^{2.} Fine-cut survey. 2015.

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA IS A SOURCE COUNTRY FOR CONTRABAND FINE-CUT TOBACCO

- According to available data, the inflows of contraband (CB) fine-cut tobacco products into the former Yugoslav Republic of Macedonia originate from Albania, where the cheapest tobacco products cost two times less (2.4 EUR for a 50-gram pouch) than the cheapest domestic ones do (5.0 EUR).
- The Greek market is the main destination of CB fine-cut tobacco products originating from the former

Yugoslav Republic of Macedonia. In Greece, the price of the cheapest legal fine-cut tobacco product (11.3 EUR for a 50-gram pouch) is more than two times higher than in the former Yugoslav Republic of Macedonia (5.0 EUR).

 Non-domestic legal (ND(L)) fine-cut tobacco consumption in the former Yugoslav Republic of Macedonia originates mainly from Greece or is identifiable as Duty Free.

Main flows of contraband and non-domestic legal fine-cut tobacco into and out of the former Yugoslav Republic of Macedonia



Total inflows and outflows of contraband and non-domestic legal fine-cut tobacco, volumes (tonnes)

CB FLOWS	Tonnes
Outflows	0.9
Inflows	0

ND(L) FLOWS	Tonnes
Outflows	0.4
Inflows	14

2.1 mn EUR

Potential government revenue losses

Potential government revenue losses due to illicit cut tobacco consumption amount to approximately 2.1 mn EUR (≈ 131.7 mn MKD) in the former Yugoslav Republic of Macedonia.

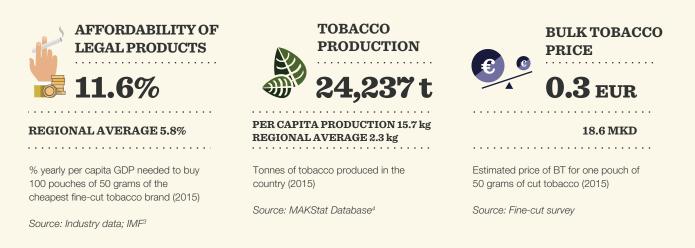
Almost all these revenue losses are due to the consumption of domestic bulk tobacco (BT(D)).

DRIVERS OF ILLICIT CONSUMPTION

- The former Yugoslav Republic of Macedonia is one of the main producers in terms of yearly volume of tobacco production among the countries considered. This fosters the availability of BT.
- The estimated price of BT (0.3 EUR \approx 18.6 MKD for a 50-gram pouch) in the former Yugoslav Republic of

Macedonia is much lower than the legal fine-cut tobacco (5.0 EUR \approx 308.4 MKD for the cheapest brand).

• Legal fine-cut tobacco is less affordable than the average of the countries considered (11.6% vs. 5.8%). This may foster the demand of illicit products.



CONSUMERS

BT smokers are less wealthy but more likely to be employed than the branded tobacco consumers.⁵

	BRANDED FINE-CUT TOBACCO	BULK TOBACCO
SEX	Male (57.9%) / Female (42.1%)	Male (53.2 %) / Female (46.8%)
AGE	25-34 (52.6%)	25-34 (32.3%)
EDUCATION ⁶	College (44.7%)	Secondary school (43.5%)
JOB	In full-time employment (63.2%)	In full-time employment (67.7%)
MONTHLY HOUSEHOLD INCOME	421 EUR	336 EUR
% UNEMPLOYED	15.8%	6.5%

3. IMF. 2016.	"World Economic Outlook Database." International	
Monetary F	und.	

4. MAKStat Database 2016. "Crop production, by years, by regions." MAKStat Database

5. Fine-cut survey. 2015.

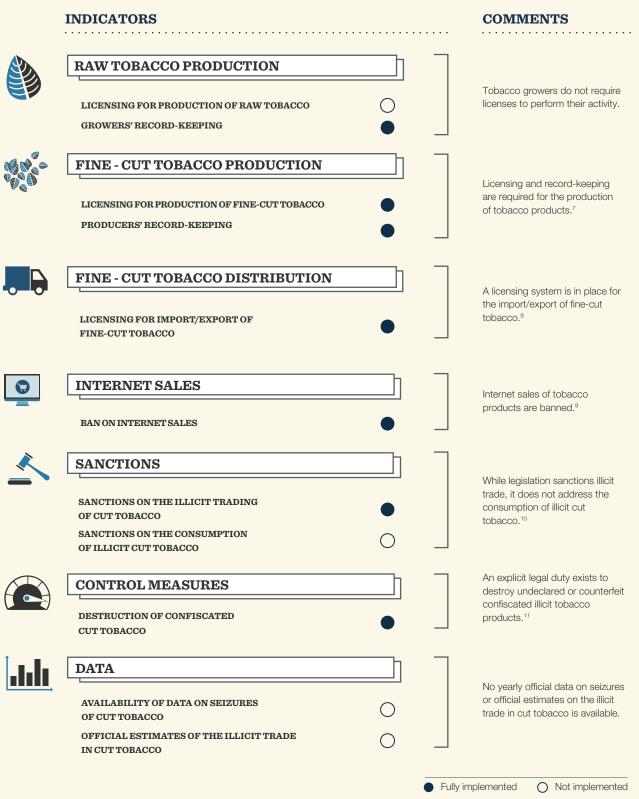
 The levels of education considered are (from the lowest to the highest): no formal schooling; primary school; secondary school; technical/vocational training; high school; college; and university.

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APPENDIX: REGULATION

The following table presents the results of the assessment of the regulation of cut tobacco in the former Yugoslav Republic of Macedonia.

Cut tobacco regulation in the former Yugoslav Republic of Macedonia



The former Yugoslav Republic of Macedonia signed the WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products in 2014 but has not yet ratified it.

7. Art. 35 and 39 Law on tobacco and tobacco products

8. Art. 36 Law on tobacco and tobacco products

9. Art. 5a Law on protection against smoking

^{10.} Art. 278 and 278 b Criminal Code

^{11.} Art. 59 Law on Management with Confiscated Property, Property Benefit and Confiscated Objects in Criminal and Misdemeanor Procedure

Glossary



GLOSSARY

Average daily Consumption	Average quantity of cut tobacco consumed daily by population of legal smoking age		
Bags	All the different types of containers (i.e. packs, boxes, pouches, sacks, tins) containing bulk tobacco.		
BAT	British American Tobacco plc		
Bn	Billion		
Branded Fine-cut tobacco	Cut tobacco sold in pouches, bags or tins with proper labelling. The term covers genuine domestic or non-domestic products and counterfeited ones.		
Bulk Tobacco (BT)	Cut tobacco, normally priced by weight or packed in bags without proper labelling, sold outside the legitimate channels. Also referred to as unbranded cut tobacco or illicit loose tobacco. It is further divided into BT(D) and BT(ND).		
BT(D)	Domestic Bulk tobacco – BT that originates from the same country in which it is consumed.		
BT(ND)	Non-Domestic Bulk tobacco – BT that originates from a country different from the one in which it is consumed.		
Cigarette	Cylindrical roll of tobacco material mass contained in a non-tobacco or paper wrapper and intended to be burned under ordinary conditions of use. It refers to both FMC and MYO/RYO cigarettes.		
Consumption	Actual total consumption of tobacco in a market, including Legal Domestic Consumption (LDC) and consumption of illicit products as well as those legally purchased overseas (ND(L)).		
Contraband Fine-cut tobacco (CB)	Genuine products that have been either bought in a low-tax country and which exceed legal border limits or acquired without taxes for export purposes to be illegally re-sold (for financial profit) in a higher priced market.		
Conversion rate	Average amount of cut tobacco used by a consumer to make a MYO or RYO cigarette. In this study, estimates of this quantity are used to convert volumes of cut tobacco into equivalent numbers of cigarettes.		
Counterfeit Fine-cut tobacco (CF)	Cut tobacco that is illegally manufactured and sold by a party other than the original trademark owner.		
Country of origin	Country from which the tobacco is deemed to have originated. This is determined either by the tax stamp or, in cases where the tax stamp is not shown, by the health warning and packaging characteristics.		
Cut tobacco	Shredded tobacco usually used for handcrafted cigarettes.		
Dual consumers	Smokers declaring to consume both fine-cut tobacco and factory-made cigarettes (FMC).		
Duty Free	Fine-cut tobacco bought without payment of customs or excise duties through legal channels (i.e. legal Duty Free shops).		
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction		
ЕММ	Europe Media Monitor		
EU	European Union		
FAME	Flows, Actors, Modus operandi and Enforcement. It is a database created from the analysis of open sources.		
FAOSTAT	Database of the Food and Agriculture Organization of the United Nations		
Fine-cut consumers	Smokers declaring to consume cut tobacco.		
	Surveys focused on adult smokers of cut tobacco.		

WHO	World Health Organisation	
WAP	Weighted Average Price	
UNWTO	World Tourism Organisation	
Tobacco taxes	The sum of all types of taxes levied on tobacco products. There are two basic methods of tobacco taxation. Specific taxes are based on a set amount of tax per unit (e.g., cigarette); these taxes are differentiated according to the type of tobacco. Ad valorem taxes are assessed as a percentage mark-up on a determined value, usually the retail selling price or a wholesale price, and includes any value added tax.	
Smoking prevalence	The percentage of smokers in the total population of the legal smoking age.	
RYO	Roll Your Own tobacco – cut tobacco smoked in cigarettes made by hand from cut tobacco and rolling paper. The consumer places the cut tobacco on a cigarette paper and rolls a cigarette by hand or using a rolling device. It is a subcategory of cut tobacco.	
РМІ	Philip Morris International Management SA	
ND(L)	Non-Domestic (Legal) – product that is brought into the market within the legal allowances by consumers, such as during a cross-border trip.	
ND	Non-Domestic product – product that originates from a different market than the one in which it is consumed.	
МҮО	Make Your Own tobacco – cut tobacco smoked in cigarettes made with pre-made filter tubes and a device that enables the consumer to press cut tobacco into the tubes. The finished product is very similar to a factory-made cigarette. It is a subcategory of cut tobacco.	
Mn	Million	
LDS	Legal Domestic Sales – sales of genuine domestic product through legitimate, domestic channels based on EU data on releases for consumption of fine-cut tobacco and on In Market Sales (IMS) data.	
LDC	Legal Domestic Consumption – branded fine-cut tobacco that is legally sold in the same country in which it is consumed. It is calculated by subtracting outflows from LDS.	
Kg	Kilogram	
JTI	JT International SA	
ITL	Imperial Tobacco Limited	
ITTP	Illicit Trade in Tobacco Products. It comprises all the different types of tobacco products	
Inflows/Outflows	Inflows of non-domestic products into a market / outflows of products from a market	
IMS	In Market Sales (the primary source of legal domestic sales volumes)	
IMF	International Monetary Fund	
GDP	Gross Domestic Product	
FMC	Factory-Made Cigarettes. Also referred to as Ready-Made Cigarettes (RMC)	

Methodological Appendix



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METHODOLOGY OVERVIEW

Several methodologies to estimate the volumes and shares of cut tobacco consumption were considered. They were assessed according to two criteria:

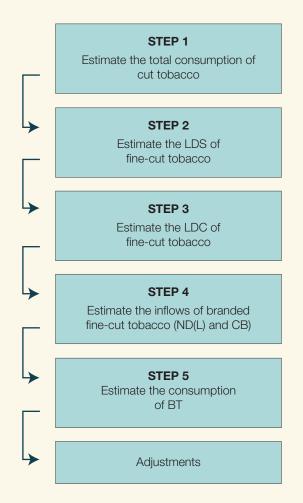
- RELIABILITY: whether or not the method could provide solid results.
- FEASIBILITY: whether or not the method could be applied given the available data.

From the results of this assessment, one methodology proved to be the most reliable and feasible in most of the countries under study.

The method adopted was demand-driven and moved through five steps. First, it estimated the total consumption of cut tobacco; then it subtracted the estimated consumption of branded products, both legal (LDC and ND(L)) and illicit (CB), from the legal domestic sales (LDS) in each country. The resulting volume (i.e. the consumption not explained by branded products) was considered to be the amount of bulk tobacco consumption (BT) (Figure 1).

The following subsections describe these steps in detail.





An alternative methodology was found to be reliable but only partially feasible given the available data. This method was based on the legal sales of rolling papers and empty tubes. Given the available data, it was applied only in one country (i.e. Poland) to validate the results obtained from the main methodology (see p.127).

METHODOLOGY

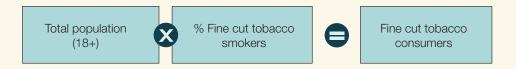
STEP 1: Estimate the total consumption of cut tobacco



The starting point of this methodology was estimation of the total yearly consumption of cut tobacco for each country. This volume was derived as follows.

(a) Estimate the number of cut tobacco consumers

First, the **number of the adult cut tobacco consumers** in each country was estimated using the available information on cut tobacco smoking prevalence and the adult resident population (i.e. individuals aged over 18 years).



Data on the 2015 **total adult population** derived from the national statistical offices. For Kosovo, Croatia and Bosnia and Herzegovina, national data were not available; therefore, alternative sources were used (Table 1).

If the sources broke the total population down into five-year age classes (i.e. 15-19, 20-24, etc.), the population of 18 and 19-year-olds was estimated as two fifths of the 15-19 age class.

Country	Source	
Albania	Institute of Statistics (INSTAT)	
Bosnia and Herzegovina	United Nations, Department of Economic and Social Affairs, Population Division	
Bulgaria	National Statistical Institute (NSI)	
Croatia	United Nations, Department of Economic and Social Affairs, Population Division	
Czech Republic	Czech Statistical Office (CZSO)	
Greece	Hellenic Statistical Authority (ELSTAT)	
Hungary	Hungarian Central Statistical Office (HCSO)	
Kosovo	Central Intelligence Agency, The World Factbook	
Montenegro	Statistical Office of Montenegro (MONSTAT)	
Poland	Central Statistical Office of Poland	
Romania	National Institute of Statistics (INSSE)	
Serbia	Statistical Office of the Republic of Serbia	
Slovakia	Statistical Office of the Slovak Republic	
Slovenia	Statistical Office of the Republic of Slovenia	
former Yugoslav Republic	former Yugoslav Republic of Macedonia State Statistical Office	
of Macedonia		

Table 1. Adult population sources (2015)

Data on the **smoking prevalence of cut tobacco** were derived using the average of the available industry estimates in each country.

Industry estimates were preferred to alternative sources for two main reasons:

- 1) **Up-to-dateness:** They were the latest information on the available cut tobacco smoking prevalence for 2015. Other available sources (e.g., WHO or Eurobarometer) referred to previous years and may have reported outdated information on the cut tobacco consumption.
- 2) **Consistency:** The data independently provided by the various industries allow for comparison to cross-validate the figures obtained. Figures not in line with the average of the other companies are excluded from the calculation (see Adjustments).

The estimated figures for the EU countries were validated using the 2014 data on the prevalence of hand-rolling tobacco provided by Eurobarometer.¹ The correlation between these two sources was positive and highly significant.

The following graph summarises the values of cut tobacco smoking prevalence used (Figure 2).





(b) Distinguish the consumers between cut tobacco only and dual smokers

Consumers of cut tobacco include **smokers of cut tobacco only** and consumers that normally also smoke other tobacco products (**dual smokers**).

The results of the Fine-cut surveys² were used to identify the percentages of smokers of cut tobacco only and of dual smokers.³

The responses to the Fine-cut surveys were also used to estimate the average daily share of cut tobacco cigarettes smoked by dual consumers (% of daily cut consumption).⁴

3. Q.3. Do you smoke any of the following tobacco products nowadays? Options: Roll-your-own cigarettes (rollies / roll-ups); Make-your-own cigarettes (cigarettes you make yourself by filling in tubes with loose tobacco); Factory-made cigarettes; Cigars; Pipe; Other tobacco products; I do not smoke.
4. Q.9. What is the approximate percentage split between your consumption of Roll-your-owns (rollies), Make-your-owns and factory-made cigarettes during a month?

^{1.} European Commission, 2015a

^{2.} The Fine-cut surveys were face-to-face interviews conducted independently by Nielsen in each of the countries sampled and targeting adult smokers of cut tobacco (see Fine-cut surveys, p.129).



(c) Estimate the annual personal consumption of cut tobacco

The **number of cut tobacco cigarettes** smoked by a single consumer in a day was obtained using the average of the industry estimates in each country.

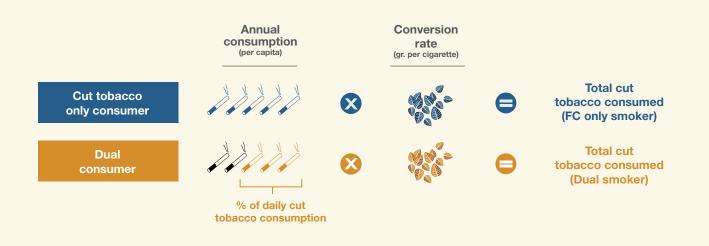
As for the smoking prevalence information, this was the most updated available data, and its reliability was validated using the avarage daily consumption declared by the respondents of the Fine-cut surveys⁵ as a comparison.

This value was multiplied by 365 to obtain the annual consumption.

For dual consumers, this value was further adjusted by considering the average daily share of cut tobacco cigarettes smoked.

The corresponding volume of cut tobacco was obtained by multiplying the annual consumption of cigarettes by a conversion rate.

The conversion rate is connected with the different smoking preferences of the consumers in the countries considered and the type of product smoked. To take these specificities into account, the conversion rates were calculated as the averages of all the values estimated by each industry in each country. For sensitivity purposes, this analysis considered a plausible range of variation of \pm 0.05 grams per cigarette around each value.

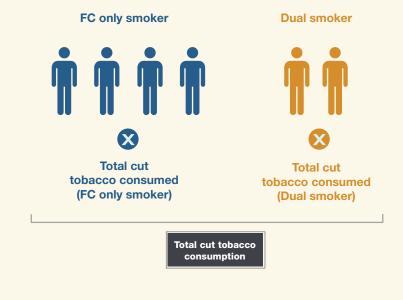




5. Q.4. Approximately how many self-made cigarettes do you usually smoke in a day?

(d) Estimate the total yearly consumption of cut tobacco

The **total volume of cut tobacco consumed** in a year was calculated by multiplying the total annual consumption of cut tobacco by the number of cut tobacco smokers.



STEP 2: Estimate the legal domestic sales (LDS) of fine-cut tobacco



The total fine-cut tobacco legally sold (LDS) was calculated for each market.

For the EU countries, the 2015 EU official data on the releases for consumption of fine-cut tobacco were used. For the remaining countries, the average of the industry estimates⁶ of the legal sales provided by the four manufacturers (BAT, JTI, ITL and PMI) was used to approximate the actual value of LDS in each country.⁷

The following graph summarises the results obtained. The labels express the values of LDS estimated. Coloured in darker blue are the EU data while in lighter blue would be the average of the industry estimates for the non-EU countries (Figure 3).

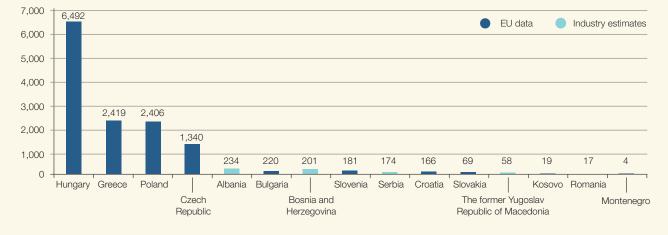


Figure 3. Legal domestic sales of fine-cut tobacco estimated per country (Tonnes)

6. The average of the industry estimate was considered a reliable source after comparing the data for the EU countries with the official data on releases for consumption. The correlation between these two sources was positive and highly significant.

7. No estimate for the LDS of fine-cut tobacco was retrieved for Montenegro. Consequently, an alternative method was used to estimate LDS (see p.127).

STEP 3: Estimate the legal domestic consumption (LDC) of fine-cut tobacco



The fine-cut tobacco legally sold in a country (LDS) does not necessarily correspond to the actual legal domestic fine-cut tobacco consumed within that country (LDC). Some of the fine-cut tobacco products may be legally or illicitly transported to, and consumed in, another country.

The **Legal Domestic Consumption (LDC)** for each country was estimated by subtracting the outflows of domestic finecut tobacco products from the LDS.

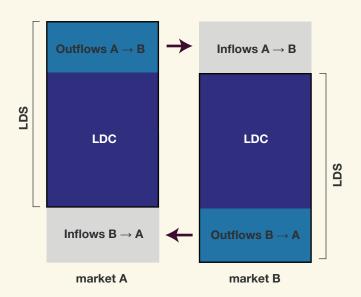
Considered in order to estimate the outflows were:

- the LDS in the origin country, and
- the percentages of non-domestic branded containers originating from that country and collected during the Fine-cut surveys in other markets.⁸

The outflows from one country have corresponding inflows in other countries, thus creating a closed system (Figure 4). However, given the lack of available data on the outflows to the countries outside the 15 countries analysed, the system was incomplete, and the values of inflows and outflows had to be approximated.

An algorithm was defined to repeatedly test several possible results and select those that better define a balance among inflows, outflows and LDC for the countries considered.

Figure 4. Complete (ideal) system of the flows among countries.



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8. A confidence interval was calculated around those percentages at a confidence level of 95%. Given the available data, this interval gave an estimated range of Min-Max values likely to include the actual value.

STEP 4: Estimate the flows of non-domestic legal (ND(L)) and contraband (CB) fine-cut tobacco



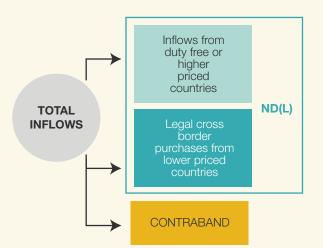
The sum of the inflows of branded fine-cut tobacco was taken to be the total branded non-domestic consumption of finecut tobacco for each country.

The **inflows** of branded fine-cut tobacco were further divided between ND(L) and CB by considering the origins of the branded non-domestic containers collected during the Fine-cut surveys.

Three criteria were used to distinguish between the legal and illicit inflows of ND fine-cut tobacco:

- a) An illicit flow occurs if it is intended to exploit the **price differential** between two different countries. All of the fine-cut tobacco originating from countries with a higher price per gram of the cheapest fine-cut tobacco legal product was considered to be ND(L).
- b) All of the fine-cut tobacco originating from duty free purchases was considered to be ND(L).
- c) The maximum share of legal cross-border purchases was estimated from the remaining flows. Any flow above this value was considered illicit (CB). The maximum of **legal cross-border** purchases was estimated by multiplying the duty-free allowance⁹ by the number of adult travellers that smoked cut tobacco. This latter figure was approximated using data on business and tourism arrivals divided by country of origin¹⁰ and the average of the cut tobacco smoking prevalence in the origin and destination countries.¹¹

Figure 5. Components of the non-domestic branded consumption.



The sum of the inflows of branded fine-cut tobacco originating from each country was considered to be the **corresponding outflows** from that country. Given the available data, only the outflows directed to one of the 15 countries under study could be identified and quantified.

^{9.} Retrieved from Worlddutyfree.com.

^{10.} UNWTO, 2015

^{11.} The cut tobacco smoking prevalence for countries not included in the study were estimated from WHO (2015) and Eurobacometer (2015a) data.

STEP 5: Estimate the consumption of bulk tobacco (BT)



The consumption of bulk tobacco (BT) was estimated by considering the share of cut tobacco consumption left unexplained after removing the shares of LDC and non-domestic branded products (ND(L) and CB) from the total volume consumed.



During the Fine-cut surveys, the respondents were asked to indicate the country of origin of the bulk tobacco that they usually smoke.¹²

This information was used to estimate:

- 1) The shares of the domestic BT(D) and non-domestic BT(ND) bulk tobacco.
- 2) The origin and the magnitude of **BT inflows** by country of origin.

Summing all the inflows of BT(ND) originating from each country made it possible to estimate the corresponding **outflows** from that country. As regards branded fine-cut tobacco, outflows to countries not analysed in this study could not be estimated.

12. Q.7. What is the country of origin of the unbranded/farmers' tobacco you smoke most often?

ADJUSTMENTS

STEP 1

STEP 2 STEP 3

STEP 4 STEP 5

Given the quality and availability of the data, some adjustments were made to the main methodology.

Adjusments

Country	Problem	Adjustment
Albania	None	-
Bosnia and Herzegovina	None	-
Bulgaria	None	-
Croatia	None	-
Czech Republic	Total consumption estimated is lower than the sum of LDC, ND(L) and CB. This may be due to lack of data regarding significant outflows to countries not included in the study (e.g., Germany, Austria).	 The volume of LDC, ND(L), CB and BT are adjusted considering two constraints: Their sum should be equal to the total fine-cut consumption estimated (as for STEP 1). The proportion among their shares is derived from the weighted shares of consumers of domestic, non-domestic and unbranded fine-cut tobacco that emerged from the Fine-cut surveys.¹³
Greece	One industry estimate for the smoking prevalence and one conversion rate are not consistent with the others.	The figures on smoking prevalence and the conversion rate are adjusted removing the values not in line with the averages of the others.
Hungary	One industry estimate for the smoking prevalence is not consistent with the others.	The figure on smoking prevalence is adjusted removing the value not in line with the average of the others.
Kosovo	During the Fine cut-survey no evidence of domestic legal fine-cut consumption emerged.	Since no evidence of outflows from this country emerged from the available data, it could be assumed that LDS was equal to LDC. Values of ND(L) and BT consumption are estimated accordingly.
	One industry estimate for the smoking prevalence is not consistent with the others.	The figure on smoking prevalence is adjusted removing the value not in line with the average of the others.
Montenegro	No information on LDS was accessible.	Since no evidence of outflows from this country emerged from the available data, it could be assumed that LDS was equal to LDC. LDC was estimated by multiplying the total cut tobacco consumption (as for STEP 1) by the weighted ¹³ share of domestic containers collected during the Fine-cut surveys.
	One industry estimate for the smoking prevalence is not consistent with the others.	The figure on smoking prevalence is adjusted removing the value not in line with the average of the others.
Poland	The average conversion rate is underestimated considering the large consumption of BT	The conversion rate is adjusted considering also an estimate provided by the industries of the conversion rate for BT consumption.
Romania	One industry estimate for the smoking prevalence and one conversion rate are not consistent with the others.	The figures on smoking prevalence and the conversion rate are adjusted removing the values not in line with the averages of the others.
Serbia	The average conversion rate is underestimated considering the large consumption of BT	The conversion rate is adjusted considering also an estimate provided by the industries of the conversion rate for BT consumption.
Slovakia	None	-
Slovenia	Total consumption estimated is lower than the sum of LDC, ND(L) and CB. This may be due to lack of data regarding significant outflows to countries not included in the study (e.g., Germany, Austria).	 The volume of LDC, ND(L), CB and BT are adjusted considering two constraints: Their sum should be equal to the total fine-cut consumption estimated (as for STEP 1). The proportion among their shares is derived from the weighted shares of consumers of domestic, non-domestic and unbranded fine-cut tobacco that emerged from the Fine-cut surveys.
The former Yugoslav Republic of Macedonia	None	-

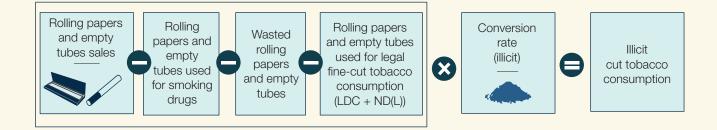
13. The shares of containers collected were weighted by considering the average grams daily consumed by each type of consumers as derived from the Fine-cut surveys. This adjustment followed the assumption that consumers of branded products and bulk tobacco may have different smoking behaviours and preferences. This assumption was supported by the results of the Fine-cut surveys.

VALIDATION

This alternative method considered the volumes of empty tubes and rolling papers sold in the Polish market. The estimate starts from the total number of rolling papers and empty tubes legally sold in the country. From this number, the following quantities are subtracted:

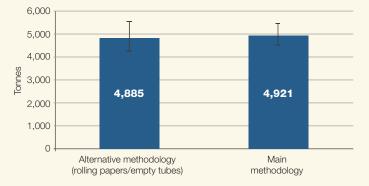
- 1. The tubes and papers used for legal consumption of fine-cut tobacco.¹⁴
- 2. the tubes and papers used for the consumption of smoking drugs.¹⁵
- 3. the tubes and papers discarded by the consumers (i.e. the wastage rate).¹⁶

The remaining number of rolling papers and empty tubes sold are considered to be used for illicit consumption of cut tobacco. The corresponding volume of cut tobacco is derived using an estimated conversion rate for illicit consumption (0.85 gr).



The following graph shows how the total consumption of cut tobacco estimated in Poland by the main method was validated by the estimate derived from the empty tubes and rolling papers sold.

Figure 6. Estimates of total illicit cut tobacco consumption in Poland



14. Estimated considering the volumes of LDC and ND(L) derived from LDS and the conversion rate for legal consumption obtained as for the previous methodology.

15. Estimated considering the prevalence of cannabis consumption in the country (EMCDDA 2016) and the yearly consumption by an average consumer (Trautmann, Kilmer, and Turnbull 2013, 89).

16. No data on the percentage of wastage rate were available. On the basis of information provided by the manufacturers, this value was estimated at around 3%.

FINE-CUT SURVEYS

The Fine-cut surveys were face-to-face interviews conducted independently by Nielsen in each of the countries sampled and targeting adult smokers of fine-cut tobacco. The surveys were conducted between August and November 2015.

The interviewees were adult, male and female, regular smokers and purchasers of fine-cut tobacco. Regular smokers were defined as people smoking at least three self-made cigarettes per day. When more than one city was involved in the survey, data was weighted by city according to the latest officially published population statistics.

During the interview, the respondents were asked to submit the containers of the tobacco products that they were currently consuming.

Information on both behaviours declared by the respondents and on the characteristics and type of the containers collected are used in this study.

Table 2. Fine-cut surveys	sample size and coverage
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Country	N. of respondents	Cities covered	Fieldwork
Albania	200	Tirana	10 th August – 26 th August 2015
Bosnia and Herzegovina	200	Sarajevo	28 th August – 22 nd September 2015
Bulgaria	300	Sofia, Varna, Plovdiv, Gotse Delchev, Petrich, Vratsa, Lyubimets, Dimitrovgrad, Haskovo, and Shumen	24 th September – 18 th October 2015
Croatia	300	Zagreb, Split and Osijek	14 th September – 22 th October 2015
Czech Republic	300	Prague, Brno, Ostrava, Olomouc and Plzen	7 th October – 28 th October 2015
Greece	303	Athens, Thessaloniki, Larissa and Patra	28 th September – 16 th October 2015
Hungary	300	Budapest, Miskolc, Szeged, Pecs and Szekesfehervar	5 th October – 26 th October 2015
Kosovo	100	Pristina	19 th September – 9 th October 2015
Montenegro	100	Podgorica	21 st September –12 th October 2015
Poland	300	Warsaw, Poznan, Katowice, Gdansk, Krakow and Lodz	2 nd October – 23 rd October 2015
Romania	300	Bucharest, Iasi, Cluj, Timisoara, Constanta, Craiova, Galati, Braila and Targu Mures	21 st September – 21 st October 2015
Serbia	300	Belgrade, Novi Sad and Nis	07 th September – 01 st October 2015
Slovakia	300	Bratislava, Nitra, Zilina, Kosice and Presov	9 th October – 2 nd November 2015
Slovenia	100	Maribor and Ljubljana	14 th September – 19 th October 2015
The former Yugoslav Republic of Macedonia	100	Skopje	9 th September – 28 th September 2015

POTENTIAL GOVERNMENT REVENUE LOSSES

To obtain an estimate of the potential government revenue losses, the estimated amounts of BT and CB consumption were multiplied by the tax yield (per kilogram) calculated on the weighted average price (WAP) of different products.

The tax yield is the total amount of tax (i.e. excises, ad valorem, VAT) levied on a kilogram of fine-cut tobacco.

Since the tax yield depends on the price of the specific branded bag, the WAP (weighted average price) was preferred. When this information was not available, an average of the available prices was used.

The potential government revenue losses calculation was based on the volumes of illicit consumption estimated not considering any other factors, like affordability or price elasticity.



AFFORDABILITY

The affordability of fine-cut tobacco is the percentage of annual per capita GDP needed to buy one hundred pouches of 50 grams¹⁷ of the cheapest domestic brand of fine-cut tobacco. The higher the percentage, the lower the affordability of the fine-cut tobacco.

The affordability for each country was calculated using data on the cheapest prices of fine-cut tobacco and an estimate of the annual per capita GDP.

The prices of the cheapest domestic legal fine-cut tobacco were estimated from:

- Industry data on the cheapest fine-cut tobacco product (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Greece, Hungary, Kosovo, Poland, the former Yugoslav Republic of Macedonia, Romania, Serbia, Slovakia and Slovenia).
- Fine-cut survey data on the declared average retail price of branded domestic fine-cut tobacco (Montenegro).^{18 19}

These prices were divided by the weight of the corresponding products to obtain the price per gram. These prices were then multiplied by 5,000 to obtain the prices of one hundred pouches of 50 grams.

Finally, these prices were compared to the 2015 annual per capita GDP as provided for each country by the International Monetary Fund (GDP current per capita).²⁰

The results are shown in Table 3.

^{17.} This quantity approximates the annual consumption of cut tobacco by an average consumer (industry estimate).

^{18.} Although this value may not be the price of the cheapest fine-cut tobacco sold in the country, it is the only available information for those countries on the prices of legal products.

^{19.} Q.19. What price did you pay for the pouch / bag / tin of fine-cut tobacco you are currently smoking? (only domestic legal consumers) 20. IMF, 2016

Table 3. Affordability of fine-cut tobacco (2015)

Country	Affordability of fine- cut tobacco (100 pouches of 50 grams)	Country	Affordability of fine- cut tobacco (100 pouches of 50 grams)
Albania	6.3%	Montenegro	5.2%
Bosnia and Herzegovina	3.7%	Poland	2.3%
Bulgaria	10.8%	Romania	8.2%
Croatia	5.7%	Serbia	4.3%
Czech Republic	3.3%	Slovakia	2.5%
Greece	7.1%	Slovenia	3.5%
Hungary	3.1%	The former Yugoslav Republic of Macedonia	11.6%
Kosovo	9.2%		

Less affordable legal fine-cut tobacco products may raise the level of illicit cut tobacco consumption.

This may be the case of Romania, the former Yugoslav Republic of Macedonia, Bulgaria and Albania. Conversely, Slovenia, Hungary and the Czech Republic, where legal fine-cut tobacco is highly affordable, register low shares of illicit cut tobacco consumption.

However, the analysis demonstrates that the connection between affordability and illicit consumption may not be valid for all the countries considered. This is probably due to the intervention of other contextual factors.

As an example, Montenegro, Serbia, Croatia and Bosnia and Herzegovina experience high shares of illicit cut tobacco consumption although the affordability of fine-cut tobacco in those countries is similar to or lower than the average for the region (5.9%). Moreover, Poland and Slovakia have medium-high levels of illicit consumption, although legal fine-cut tobacco products are highly affordable. These situations can be related to the large availability of raw tobacco because these markets produce tobacco or border on countries where tobacco is produced.

TOBACCO PRODUCTION

The volume of tobacco produced in each country is one of the drivers of the illicit consumption of cut tobacco.

The sources of data on tobacco production are:

- Directorate-General for Agriculture and Rural Development of the European Commission, for the EU countries (excluded Croatia and Romania).²¹
- National statistics on tobacco production, for Albania, Bosnia and Herzegovina, Croatia, Montenegro (2013), the former Yugoslav Republic of Macedonia, Romania and Serbia.²²

No updated information for Kosovo was available.

Table 4. Tobacco	production by	/ country in to	onnes (last a	vailable year)
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Country	Tobacco produced	Year
Albania	1,735	2015
Bosnia and Herzegovina	2,047	2014
Bulgaria	28,680	2014
Croatia	10,132	2015
Czech Republic	-	2014
Greece	33,994	2014
Hungary	8,599	2014
Kosovo	N/A	N/A
Montenegro	230	2013
Poland	24,925	2014
Romania	1,602	2015
Serbia	17,292	2014
Slovakia	-	2014
Slovenia	-	2014
The former Yugoslav Republic of Macedonia	24,237	2015

^{21.} European Commission, 2015b

^{22.} Al.S, 2014; FAOSTAT, 2014; Croatian Bureau of Statistics, 2015; Ministry of Foreign Trade and Economic Relations, 2015; Republic of Serbia - Ministry of Finance, 2015; Agroweb.org, 2016; Ministry of Agriculture and Rural Development, 2016

NATIONAL REGULATION ON CUT TOBACCO

Information on the national regulations for the 15 countries was collected through a National Checklist on the Regulation of Cut Tobacco. The purpose of this assessment was to provide a better overview of the policy measures used to tackle the illicit trade of cut tobacco in the countries analysed. This assessment depicted merely the presence or absence of a policy or regulation without providing any information on their actual effectiveness or quality.

The National Checklist comprises various indicators and sub-indicators. Some analysed the supply chain of cut tobacco (from A to D); others assessed the measures designed to tackle the illicit trade (from E to G) (Table 5).²³

Information on taxation was excluded from this analysis because it was not included in the scope of the report.

The indicators related to the supply chain control reflected the legal provisions of Part III of the Protocol to Eliminate Illicit Trade in Tobacco Products. This Part of the Protocol addresses Supply Chain Control and establishes a regime aimed at the prevention of the illicit tobacco trade by securing the legitimate supply chain.²⁴ The indicators related to the illicit trade in tocabbo products (ITTP) were developed through the analysis of several documents.²⁵

A. Raw tobacco production

The first indicator was the existence of a licensing system²⁶ for the manufacture of raw tobacco and of a requirement for tobacco growers to maintain complete and accurate records of all relevant transactions. An established licensing system and a record-keeping system should contribute to the prevention of the ITTP, enabling the identification and control of legitimate market operators (Interpol 2014).

B. Fine-cut tobacco production

The second indicator was the existence of a licensing system for the manufacture of fine-cut tobacco and of a requirement for producers of tobacco products to keep records of their activity.

23. According to Art.1 of the WHO FCTC Protocol, the term "supply chain" covers both the act of manufacturing tobacco products and the actual manufacturing equipment; it also includes import or export of tobacco products and manufacturing equipment and may be extended to: (a) retailing of tobacco products; (b) growing of tobacco, except for traditional small-scale growers, farmers and producers; (c) transporting commercial quantities of tobacco products or manufacturing equipment; and (d) wholesaling, brokering, warehousing, or distribution of tobacco and tobacco products or manufacturing equipment; Berling in Trade in Tobacco Products).

24. In the construction of these indicators, the following sources were also reviewed: Directive 2014/40/EU of the European Parliament and of the Council of 3 April 2014 on the approximation of the laws, regulations and administrative provisions of the Member States concerning the manufacture, presentation and sale of tobacco and related products and repealing directive 2001/37/EC; Transcrime's report The European Outlook for Illicit Trade in Tobacco Products (www. transcrime.it); Interpol, Office of Legal Affairs, Combatting illicit trade in tobacco products: a guide for policy-makers, Legal Handbook Series, 2014; Sweeting J, Johnson T, and Schwartz R. 2009. Anti-Contraband Policy Measures: Evidence for Better Practice. Toronto, ON: The Ontario Tobacco Research Unit, Special Report Series. June 2009.

25. In the construction of these indicators, the following sources were reviewed: Sweeting J, Johnson T, and Schwartz R. 2009. Anti-Contraband Policy Measures: Evidence for Better Practice. Toronto, ON: The Ontario Tobacco Research Unit, Special Report Series. June 2009; WHO FCTC. Protocol to Eliminate Illicit Trade in Tobacco Products (in particular Part IV, Offences, Articles 18); Transcrime's report The European Outlook for Illicit Trade in Tobacco Products (www.transcrime.it); Interpol, Office of Legal Affairs, Combatting illicit trade in tobacco products: a guide for policy-makers, Legal Handbook Series, 2014.
26. "Licence" means permission from a competent authority following submission of the requisite application or other documentation to that authority. It is a requirement to allow the conduct of the following activities by a natural or legal person pursuant to a licence granted by a competent authority in accordance with national law.

C. Fine-cut tobacco distribution

The third indicator was the existence of a licensing system for the import/export of fine-cut tobacco.

D. Internet sales

The fourth indicator was the existence of a ban on retail sales of tobacco products via Internet, telecommunications or any other evolving technology.

E. Sanctions

The fifth indicator was the existence of sanctions on the illicit trading of cut tobacco and on the consumption of illicit cut tobacco.

F. Control measures

The sixth indicator was the existence of an explicit legal duty to destroy all confiscated illicit cut tobacco.

G. Data

The seventh indicator was the availability of public/yearly data on the seizures of cut tobacco and on the size of the illicit trade in cut tobacco.

Table 5. Fine-cut regulation indicators and sub-indicators.

Indicators	Sub-indicators	
A Row tobacco production	A.1 Licensing for production of raw tobacco	
A. Raw tobacco production	A.2 Growers' record-keeping	
D. Fina out tabaasa production	B.1 Licensing for production of fine-cut tobacco	
B. Fine-cut tobacco production	B.2 Producers' record-keeping	
	C.1 Licensing for import/export of fine-cut tobacco	
C. Fine-cut tobacco distribution	C.2 Licensing for retail of fine-cut tobacco	
	C.3 Retailers' record-keeping	
D. Internet sales	D.1 Ban on Internet sales	
E. Sanctions	E.1 Sanctions on the illicit trading of cut tobacco	
E. Sanctions	E.2 Sanctions on the consumption of illicit cut tobacco	
F. Control measures	F.1 Destruction of confiscated cut tobacco	
C. Doto	G.1 Availability of data on seizures of cut tobacco	
G. Data	G.2 Official estimates of the illicit trade in cut tobacco	

THE FAME DATABASE

To validate the results obtained and to add missing information, customs press releases and online news items regarding seizures and other law enforcement activities against illicit cut tobacco trade or consumption in the period 2014-2015 were collected.

All the data and information from these sources were entered into a database called FAME (Flows, Actors, Modus operandi and Enforcement) (Table 6).

Table 6. Available information in the FAME database

General info	Flows	Actors and modus operandi	Law enforcement activities	Notes
	Source countries	Actors (number of actors, nationality and age)	Type of tobacco seized	Tobacco storage (e.g., warehouse)
Link and date	Transit countries	Means of transport used	Quantity seized	Illicit manufacturing
	Destination countries	(e.g., motor vehicles)	Place of seizure	facilities

When available, additional information on the points of sale/retail of illicit cut tobacco were entered in the database. The points of sale were categorised as follows: bar, commercial premises, farm, kiosk, open-air market, shop, street, supermarket, and other.

Collection method

Customs press releases and national customs websites were searched for cases of tobacco seizures in the period 2014-2015.

News items on cut tobacco seizures were collected from online press through the Europe Media Monitor (EMM) website (http://emm.newsbrief. eu/).²⁷ Articles were searched in the "advanced research" section using specific keywords in both English and native languages.²⁸ The search covered the period between 1st January 2014 and 31st December 2015.

Articles describing specific cases of cut tobacco seizures were kept. Articles dealing with the ITTP in general terms (e.g., trend analysis, legislation, etc.) were excluded.

After the collection of the cases, a check for duplicated articles was conducted in order to avoid double counting.²⁹ Moreover, articles on tobacco seizures provided by BAT, ITL, JTI and PMI were included if not already present.

Table 7 shows the final number of cases inserted per country and per year.

The EMM News Brief website gathers articles from news portals worldwide in 60 languages and classifies them according to thousands of criteria. It was activated by the European Commission's Joint Research Centre and Directorate General Communication. It is updated every 10 minutes, 24 hours a day.
 The keywords were: tobacco seizure, tobacco seized, tobacco smuggling, tobacco contraband, counterfeit tobacco, fine-cut tobacco and smoking tobacco.

^{29.} Articles with identical information were removed. However, similar articles (e.g., similar quantity, same place or same number of actors involved) were read again in order to determine whether they referred to the same law enforcement operation. If this was verified, the article with less information was deleted.

Table 7. FAME database entries by country and source

Country	Total entries	Custom Press releases	Online and industry Press review
Albania	2	2	0
Bosnia and Herzegovina	36	0	36
Bulgaria	287	29	258
Croatia	173	143	30
Czech Republic	14	0	14
Greece	274	2	272
Hungary	32	0	32
Kosovo	0	0	0
Montenegro	3	2	1
Poland	62	0	62
Romania	38	1	37
Serbia	125	65	60
Slovakia	20	19	1
Slovenia	16	0	16
The former Yugoslav Republic of Macedonia	14	14	0
Total	1,096	277	819

LIMITATIONS

Countries on which limited information was available posed several methodological challenges related mainly to the availability and reliability of information and the need to be based on certain assumptions.

In the previous sections, the methodologies and the data used in this study have been explained to clarify how some of those challenges were addressed. However, some limitations still exist.

The following table summarises the main limitations and their possible impacts on the estimates.

Limitation	Detail	Possible Impact	
Fine out our out	Small sample size.	Possible over- or under-estimation of some figures (e.g., the inflows), especially for big countries.	
Fine-cut surveys	Surveys are conducted mainly in the largest cities.	Possible over- or under-estimation of some figures.	
Flows	Missing information on the outflows originating from the 15 countries studied and directed to third countries.	Possible under-estimation of outflows volume for some countries.	
LDS	For some countries, LDS for manufacturers other than BAT, JTI, ITL and PMI were estimated by the industries.	Possible over- or under-estimation of the LDC volume in those countries.	
ND(L)	It was assumed that all travelling consumers transport the maximum allowed volume of fine-cut tobacco when entering a country.	Possible over-estimation of ND(L) share on the total non-domestic branded fine-cut tobacco consumption.	

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