

## Methodological Appendix

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# CONTENTS

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Methodology overview	119
Methodology	120
Adjustments	127
Validation	128
Fine-cut surveys	129
Potential government revenue losses	130
Affordability	130
Tobacco production	132
National regulation on cut tobacco	133
The FAME database	135
Limitations	137
Sources	138

## METHODOLOGY OVERVIEW

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

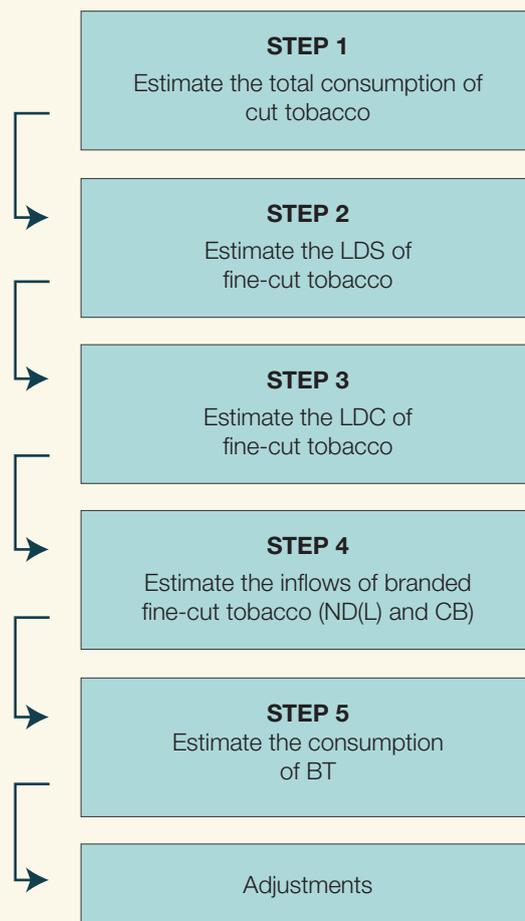
- **RELIABILITY:** whether or not the method could provide solid results.
- **FEASIBILITY:** whether or not the method could be applied given the available data.

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.

**Figure 1. The five steps followed to estimate legal and illicit cut tobacco consumption**



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

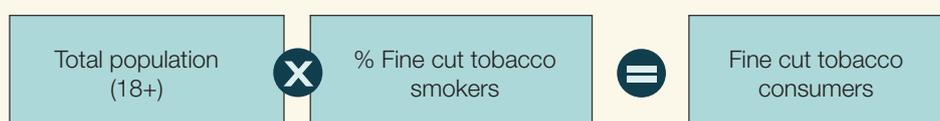
## STEP 1: Estimate the total consumption of cut tobacco



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.

**Table 1. Adult population sources (2015)**

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

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

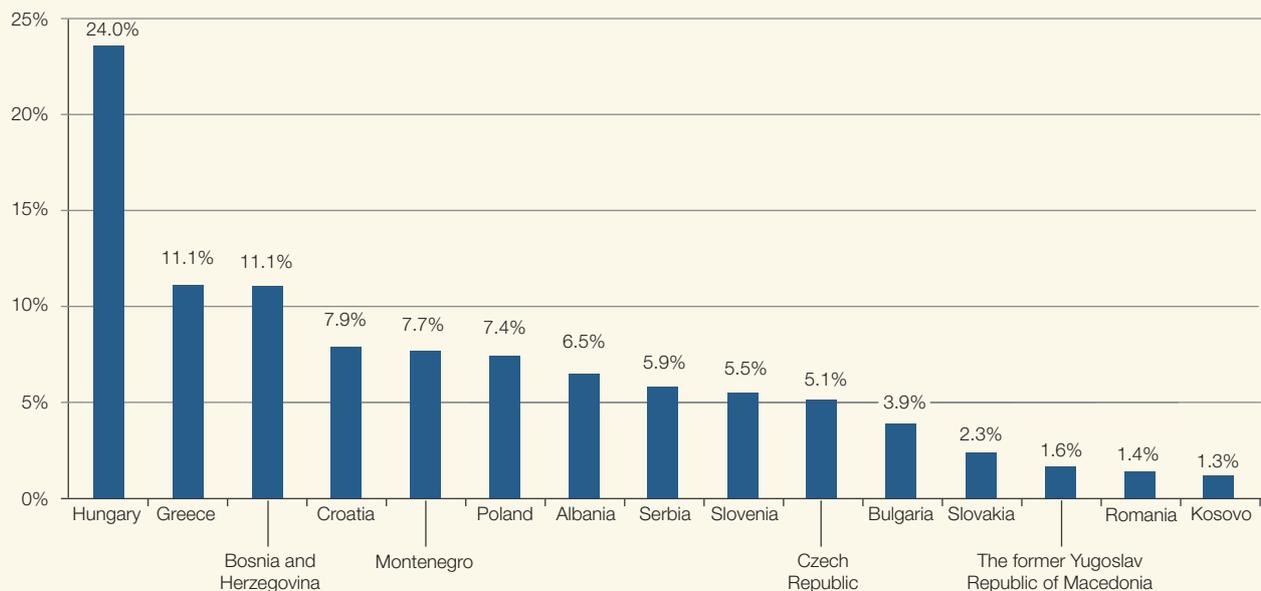
Industry estimates were preferred to alternative sources for two main reasons:

- 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.<sup>1</sup> 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).

**Figure 2. Estimates of the cut tobacco smoking prevalence (% of total adult population)**



**(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 surveys<sup>2</sup> were used to identify the percentages of smokers of cut tobacco only and of dual smokers.<sup>3</sup>

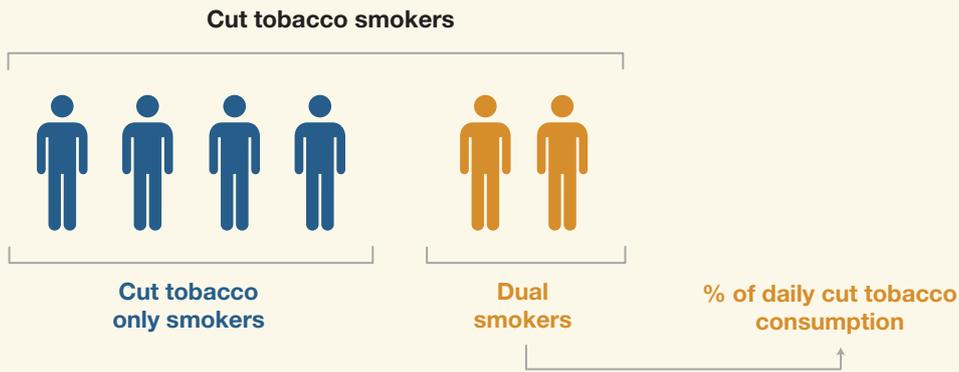
The responses to the Fine-cut surveys were also used to estimate the average daily share of cut tobacco cigarettes smoked by dual consumers (% of daily cut consumption).<sup>4</sup>

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).

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?



**(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.

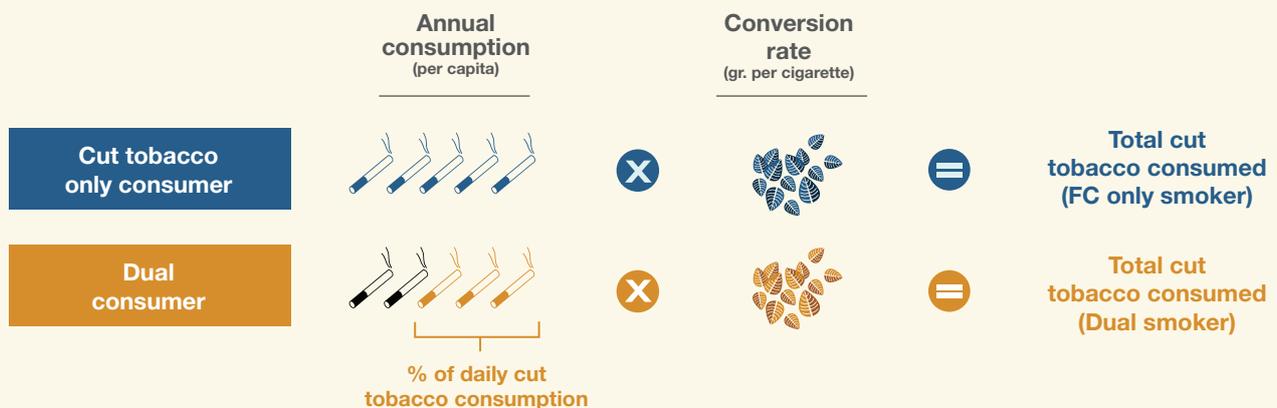
As for the smoking prevalence information, this was the most updated available data, and its reliability was validated using the average daily consumption declared by the respondents of the Fine-cut surveys<sup>5</sup> as a comparison.

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.

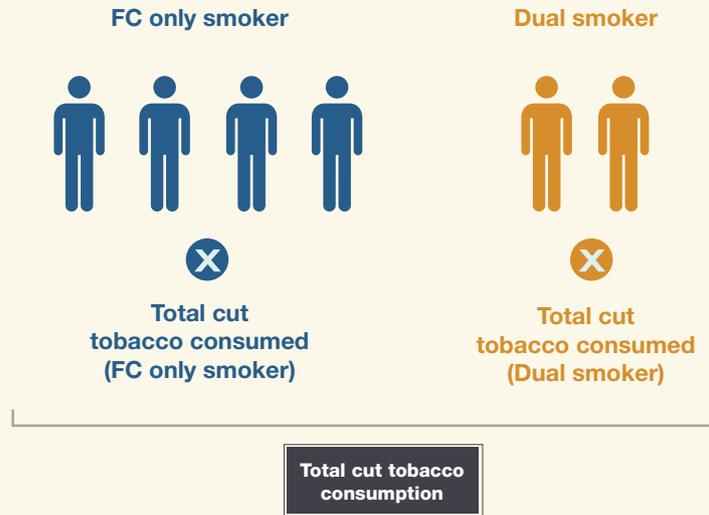
The conversion rate is connected with the different smoking preferences of the consumers in the countries considered and the type of product smoked. To take these specificities into account, the conversion rates were calculated as the averages of all the values estimated by each industry in each country. 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**

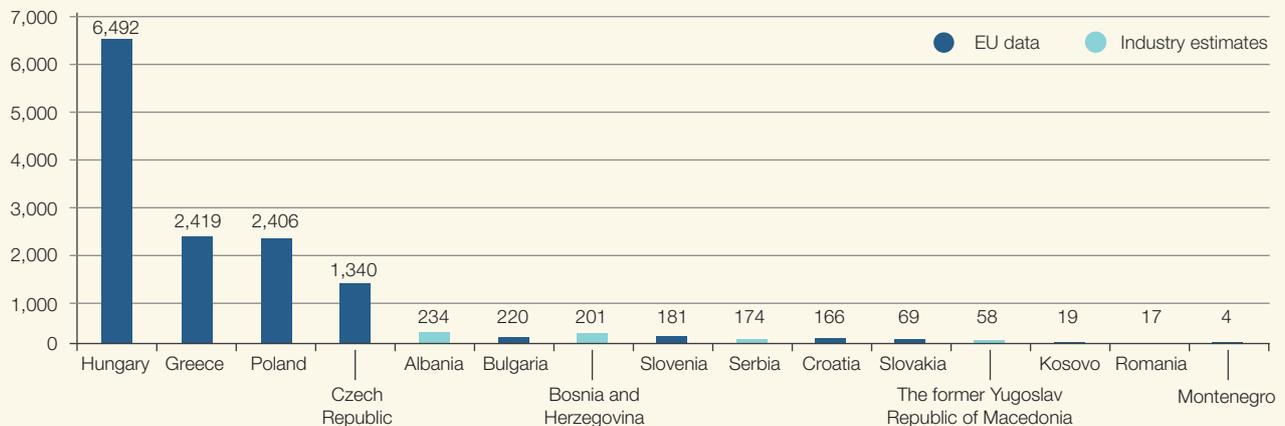


The **total fine-cut tobacco legally sold (LDS)** was calculated for each market.

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 estimates<sup>6</sup> 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.<sup>7</sup>

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 fine-cut tobacco products from the LDS.

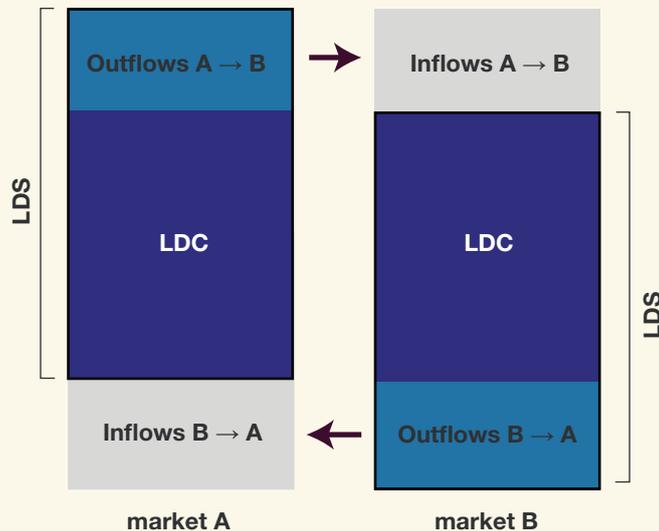
Considered in order to estimate the outflows were:

- 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.<sup>8</sup>

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.**



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



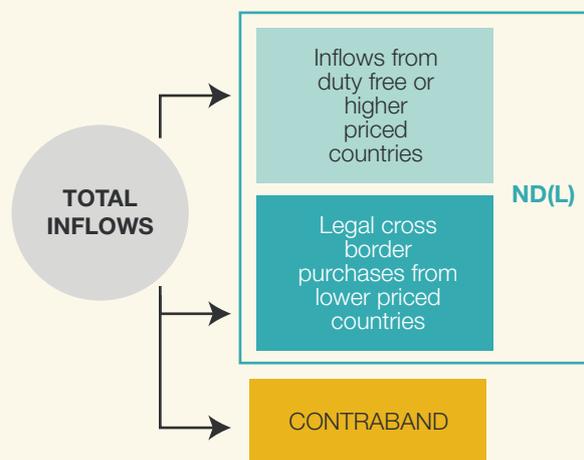
The sum of the inflows of branded fine-cut tobacco was taken to be the total branded non-domestic consumption of fine-cut tobacco for each country.

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 allowance<sup>9</sup> 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 origin<sup>10</sup> and the average of the cut tobacco smoking prevalence in the origin and destination countries.<sup>11</sup>

**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 Eurobarometer (2015a) data.

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

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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.<sup>12</sup>

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.

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

Country	Problem	Adjustment
<b>Albania</b>	None	-
<b>Bosnia and Herzegovina</b>	None	-
<b>Bulgaria</b>	None	-
<b>Croatia</b>	None	-
<b>Czech Republic</b>	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: <ul style="list-style-type: none"> <li>• Their sum should be equal to the total fine-cut consumption estimated (as for STEP 1).</li> <li>• 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.<sup>13</sup></li> </ul>
<b>Greece</b>	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.
<b>Hungary</b>	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.
<b>Kosovo</b>	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.
<b>Montenegro</b>	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 <sup>13</sup> share of domestic containers collected during the Fine-cut surveys.
<b>Poland</b>	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.
	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.
<b>Romania</b>	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.
<b>Serbia</b>	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.
<b>Slovakia</b>	None	-
<b>Slovenia</b>	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: <ul style="list-style-type: none"> <li>• Their sum should be equal to the total fine-cut consumption estimated (as for STEP 1).</li> <li>• 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.</li> </ul>
<b>The former Yugoslav Republic of Macedonia</b>	None	-

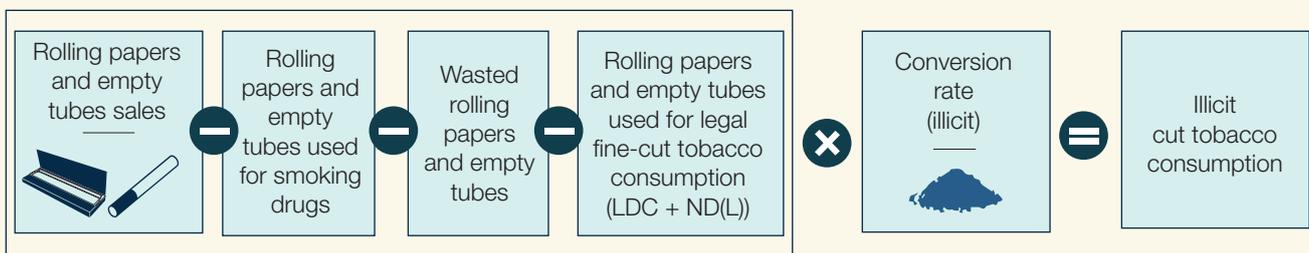
13. The shares of containers collected were weighted by considering the average grams daily consumed by each type of consumers as derived from the Fine-cut surveys. This adjustment followed the assumption that consumers of branded products and bulk tobacco may have different smoking behaviours and preferences.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

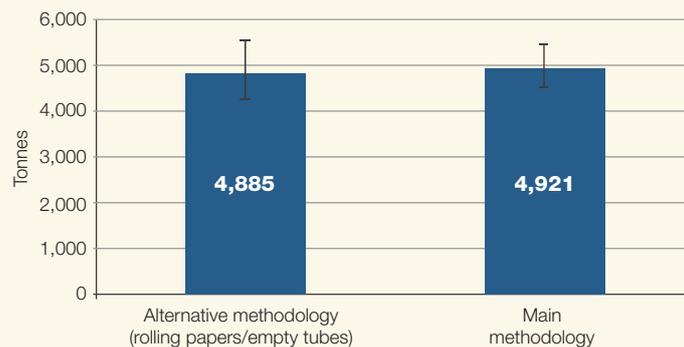
1. The tubes and papers used for legal consumption of fine-cut tobacco.<sup>14</sup>
2. the tubes and papers used for the consumption of smoking drugs.<sup>15</sup>
3. the tubes and papers discarded by the consumers (i.e. the wastage rate).<sup>16</sup>

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**

Country	N. of respondents	Cities covered	Fieldwork
Albania	200	Tirana	10 <sup>th</sup> August – 26 <sup>th</sup> August 2015
Bosnia and Herzegovina	200	Sarajevo	28 <sup>th</sup> August – 22 <sup>nd</sup> September 2015
Bulgaria	300	Sofia, Varna, Plovdiv, Gotse Delchev, Petrich, Vratsa, Lyubimets, Dimitrovgrad, Haskovo, and Shumen	24 <sup>th</sup> September – 18 <sup>th</sup> October 2015
Croatia	300	Zagreb, Split and Osijek	14 <sup>th</sup> September – 22 <sup>th</sup> October 2015
Czech Republic	300	Prague, Brno, Ostrava, Olomouc and Plzen	7 <sup>th</sup> October – 28 <sup>th</sup> October 2015
Greece	303	Athens, Thessaloniki, Larissa and Patra	28 <sup>th</sup> September – 16 <sup>th</sup> October 2015
Hungary	300	Budapest, Miskolc, Szeged, Pecs and Szekesfehervar	5 <sup>th</sup> October – 26 <sup>th</sup> October 2015
Kosovo	100	Pristina	19 <sup>th</sup> September – 9 <sup>th</sup> October 2015
Montenegro	100	Podgorica	21 <sup>st</sup> September – 12 <sup>th</sup> October 2015
Poland	300	Warsaw, Poznan, Katowice, Gdansk, Krakow and Lodz	2 <sup>nd</sup> October – 23 <sup>rd</sup> October 2015
Romania	300	Bucharest, Iasi, Cluj, Timisoara, Constanta, Craiova, Galati, Braila and Targu Mures	21 <sup>st</sup> September – 21 <sup>st</sup> October 2015
Serbia	300	Belgrade, Novi Sad and Nis	07 <sup>th</sup> September – 01 <sup>st</sup> October 2015
Slovakia	300	Bratislava, Nitra, Zilina, Kosice and Presov	9 <sup>th</sup> October – 2 <sup>nd</sup> November 2015
Slovenia	100	Maribor and Ljubljana	14 <sup>th</sup> September – 19 <sup>th</sup> October 2015
The former Yugoslav Republic of Macedonia	100	Skopje	9 <sup>th</sup> September – 28 <sup>th</sup> 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 grams<sup>17</sup> 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).<sup>18 19</sup>

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).<sup>20</sup>

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)**

<b>Country</b>	<b>Affordability of fine-cut tobacco (100 pouches of 50 grams)</b>	<b>Country</b>	<b>Affordability of fine-cut tobacco (100 pouches of 50 grams)</b>
<b>Albania</b>	6.3%	<b>Montenegro</b>	5.2%
<b>Bosnia and Herzegovina</b>	3.7%	<b>Poland</b>	2.3%
<b>Bulgaria</b>	10.8%	<b>Romania</b>	8.2%
<b>Croatia</b>	5.7%	<b>Serbia</b>	4.3%
<b>Czech Republic</b>	3.3%	<b>Slovakia</b>	2.5%
<b>Greece</b>	7.1%	<b>Slovenia</b>	3.5%
<b>Hungary</b>	3.1%	<b>The former Yugoslav Republic of Macedonia</b>	11.6%
<b>Kosovo</b>	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).<sup>21</sup>
- National statistics on tobacco production, for Albania, Bosnia and Herzegovina, Croatia, Montenegro (2013), the former Yugoslav Republic of Macedonia, Romania and Serbia.<sup>22</sup>

No updated information for Kosovo was available.

**Table 4. Tobacco production by country in tonnes (last available year)**

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. A.I.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

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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).<sup>23</sup>

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.<sup>24</sup> The indicators related to the illicit trade in tobacco products (ITTP) were developed through the analysis of several documents.<sup>25</sup>

### **A. Raw tobacco production**

The first indicator was the existence of a licensing system<sup>26</sup> 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.

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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 (WHO FCTC Protocol to Eliminate Illicit 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](http://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](http://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.**

<b>Indicators</b>	<b>Sub-indicators</b>
A. Raw tobacco production	A.1 Licensing for production of raw tobacco
	A.2 Growers' record-keeping
B. Fine-cut tobacco production	B.1 Licensing for production of fine-cut tobacco
	B.2 Producers' record-keeping
C. Fine-cut tobacco distribution	C.1 Licensing for import/export of fine-cut tobacco
	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.2 Sanctions on the consumption of illicit cut tobacco
F. Control measures	F.1 Destruction of confiscated cut tobacco
G. Data	G.1 Availability of data on seizures of cut tobacco
	G.2 Official estimates of the illicit trade in cut tobacco

## THE FAME DATABASE

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

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

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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/>).<sup>27</sup> Articles were searched in the “advanced research” section using specific keywords in both English and native languages.<sup>28</sup> 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.<sup>29</sup> 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.

27. 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.

28. 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**

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

## LIMITATIONS

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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.

<b>Limitation</b>	<b>Detail</b>	<b>Possible Impact</b>
<b>Fine-cut surveys</b>	Small sample size.	Possible over- or under-estimation of some figures (e.g., the inflows), especially for big countries.
	Surveys are conducted mainly in the largest cities.	Possible over- or under-estimation of some figures.
<b>Flows</b>	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.
<b>LDS</b>	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.
<b>ND(L)</b>	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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