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The Illicit Cigarette Trade

along the Balkan Route:

Measuring Vulnerabilities and Threats



THE ILLICIT CIGARETTE TRADE ALONG THE BALKAN ROUTE

MEASURING VULNERABILITIES AND THREATS



The current report focuses on the illicit tobacco market and the effectiveness of law enforcement against it in four EU countries along the Balkan route - Bulgaria, Italy, Greece and Romania. Having been affected by both illegal production and illegal trade, these countries face a number of vulnerabilities and threats in their capacities for effective law enforcement. In order to measure and design methods for improving these capacities, the study analyses two comprehensive datasets - the data collected by the tobacco industry on illicit consumption and the institutional data on seizures of illicit cigarettes. The result are several innovative instruments for assessing the illegal cigarette market, as well as police performance and corruption vulnerabilities in law enforcement and revenue agencies.

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TABLE OF CONTENTS

Exi	ECUTIVE SUMMARY	9
INI	TRODUCTION	
1.	THE ILLICIT TRADE OF TOBACCO PRODUCTS ALONG THE BALKAN ROUTE: BULGARIA, GREECE, ITALY AND ROMANIA	
	1.1. Legal framework on ITTP	20
	1.2. Institutional framework at national and regional level	26
	1.3. The legal tobacco sales	30
	1.4. The illicit tobacco market	34
	1.5. Trends in the illicit cigarette market by brands	49
2.	MEASURING VULNERABILITIES AND THREATS AT REGIONAL LEVEL	57
	2.1. The significance and challenges of measurement	57
	2.2. Vulnerabilities and threats in the four countries	58
	2.3. Illicit cigarette market assessment model	61
	2.4. Measuring vulnerability to corruption in Police Enforcement	72
Po	DLICY RECOMMENDATIONS	83
ΑN	INEX I. METHODOLOGY OF THE MODEL FOR ILLICIT CIGARETTE MARKET ASSESSMENT.	87
ΔΝ	INIEV II METHODOLOGY OF THE CICAPETTE REANIDS SEIZHBES DEVIATIONS INDEV	97

LIST OF ABBREVIATIONS

ANAF National Agency for Fiscal Administration, Romania

ANV National Customs Authority, Romania

BAT British American Tobacco

DDA Anti-Mafia District Directorate, Italy
Customs General Directorate, Romania
DIICOT Directorate for Investigating Organised Crime

and Terrorism, Romania

DNA The National Anti-Mafia and Counter-Terrorism

Directorate, Italy

DOA Directorate of Economic Police, Greece

EPS empty pack survey

FCTC Framework Convention on Tobacco Control GDBP General Directorate Border Police, Bulgaria

GDCOC General Directorate for Combating Organised Crime, Bulgaria

GDNP General Directorate National Police, Bulgaria

GDP gross domestic product

GSAC Investigation Groups on Organized Crime, Italy
GSAC General Secretariat Against Corruption, Greece
General Inspectorate of Border Police, Romania

ITTP illicit trade in tobacco products

JTI Japan Tobacco International

LEA law enforcement agency

OCG organized crime group

OLAF European Anti-Fraud Office

PEITTP Protocol to Eliminate Illicit Trade in Tobacco Products

PMI Phillip Morris International

SCICO Central Service of Investigation on Organised Crime, Italy

SDI cigarette brands seizure deviation index

WHO World Health Organization

GLOSSARY

Contraband/smuggled cigarettes	Genuine cigarette 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.
Counterfeit cigarettes	Cigarettes that are illegally manufactured and sold by a party other than the original trademark owner.
Illicit whites	Cigarettes that are usually manufactured legally in one country/market but which the evidence suggests have been smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax.
Domestic illicit white	Cigarettes which are manufactured legally by a domestic producer for export or duty-free sale. They are usually of unknown brands not registered as trademarks in the country and instead of being exported end up as illegally sold on the domestic market.
Duty-free cigarettes	Cigarettes bought without payment of customs or excise duties. Consumers may buy duty-free cigarettes when travelling into or out of the EU (including Switzerland and Norway) by land, air or sea at legal duty-free shops.
Non-domestic cigarettes (brands)	Cigarettes not intended for the local market, including both legally and illegally imported cigarette products, as well as counterfeit cigarettes that are illegally manufactured in the country.
Empty pack survey	Commissioned by the participating tobacco manufacturers, empty pack surveys are conducted by independent research companies in each individual market (e.g., Ipsos, Nielsen, etc.). The method involves the collection of a large sample of discarded cigarette packs from streets and public bins in randomly selected locations in each market. These cigarettes packs are then analysed by experts in order to identify if they are of domestic or non-domestic origin (based on the individual characteristics of each pack, e.g., the presence of tax stamps, graphic health warnings, etc.).
Novel research survey	In Romania, EPS was deemed as unsuitable instrument due to the large share of rural population, which hinders the collection of discarded packs. Instead, in Romania, the Novel research agency applies a somewhat similar methodology based on household population survey using pack swap.

LIST OF FIGURES

Figure	1.	Budget revenue lost due to unpaid excise and tax duties related to ITTP as share of GDP (2013 – 2016)	20
Figure	2.	Main aspects of tobacco policies at national level	21
Figure	3.	Smoking prevalence in the Bulgaria, Greece, Italy and Romania (2006 – 2016)	31
Figure	4.	Share of counterfeit and contraband cigarettes in Bulgaria, Greece, Italy and Romania (2008 – 2016)	35
Figure	5.	Illegal tobacco products import and distribution models (2009 – 2014)	37
Figure	6.	Share of brands not intended for the local market (2007 - 2017)	.40
Figure	7.	Share in the total illicit consumption of the top five non-domestic brands, Bulgaria	50
Figure	8.	Total volume of the illicit cigarettes market and share of the domestic Illicit whites	52
Figure	9.	Share in the total illicit consumption of the top five non-domestic brands, Italy	54
Figure	10.	Share in the total illicit consumption of the top five non-domestic brands, Romania	55
Figure	11.	Integrated model for assessment of the illicit cigarettes market at regional level	62
Figure	12.	Police effectiveness in seizing of illicit cigarettes at regional level for Bulgaria, Greece, Italy and Romania (2016 data)	
Figure	13.	Police force by region in Bulgaria and Romania (2016 data)	64
Figure	14.	Economic development and tourist flows by region in Bulgaria, Italy and Romania (2016 data)	66
Figure	15.	Illegal activities at regional level in Bulgaria and Romania (2016 data)	
Figure	16.	Index for assessment of the illicit cigarette market at regional level (2016 data)	
Figure	17.	Models of protection by public officials of criminal networks and privileged actors on the illicit cigarette market	
Figure	18.	Most often consumed illicit cigarette brands seized below the average police seizure levels in 2017	
Figure	19.	Distribution and share of illicit cigarettes of eight domestic illicit white brands out of total non-domestic consumption in 2015	
Figure	20.	Overall approach to the elaboration of the model for illicit cigarette market assessment	
Figure	21.	Factors impacting the levels of illicit tobacco at regional level	
Figure	22.	SDI composition	98

LIST OF TABLES

Table 1.	Cultivated land and tobacco production	
	in Greece, 2011 – 2015	34
Table 2.	Estimates of the revenues of the ITTP market (EU 28, 2013)	36
Table 3.	Total outflows by country of destination, 2012 – 2016 (billion cigarettes)	44
Table 4.	Share in the total illicit consumption of the top non-domestic brands, Greece	54
Table 5.	Potential local privileged criminal actors in Bulgaria based on SDI and EPS	78
Table 6.	Potential local privileged criminal actors in Italy based on SDI and EPS	80
Table 7.	Potential local privileged criminal actors in Greece based on SDI and EPS	81
Table 8.	Detailed results for each of the tested primary regional indicators	90
Table 9.	The final regression model of illicit tobacco trade based on Bulgarian data	93
Table 10.	The full regression model of illicit tobacco trade based on data from the four countries	95
Table 11.	Relative weights applied for the calculation of the four indices and the integrated index	96
Table 12.	Score of the index of police effectiveness in seizing illegal cigarettes, Bulgaria	

EXECUTIVE SUMMARY

The illicit trade in tobacco products (ITTP) is a global phenomenon that results in significant losses of revenue for both national governments and legitimate businesses, while at the same time providing a significant source of income for criminal organisations worldwide. As most illicit products do not meet the quality and health protection standards established for tobacco products, ITTP constitutes not only a financial but also a public health issue. Due to its harmful effects, the EU and the member states have made the fight against ITTP a policy priority.

Monitoring of the illicit cigarettes market has progressed substantially over the past decade. The adoption of the *Framework Convention on Tobacco Control* (FCTC) of the World Health Organization and the new EU *Tobacco Products Directive* has resulted in strict regulation of the market and close monitoring of the supply chain from the production factories to the points of sale. The implementation of the European track and trace system for cigarette and fine-cut products will allow for even more precise monitoring of all legally produced tobacco products and their movements across EU member states. However, these measures alone do not provide sufficient grounds for assessing the threats and vulnerabilities posed by the trade in illicit tobacco products for assessing the effectiveness of the public administration in curbing this illegal market.

The typical indicators used by law enforcement authorities to measure their performance in fighting the illicit cigarette market are the number of recorded offences and the number of investigated perpetrators, as well as the amount of seized illegal cigarettes. While these indicators point to the activities and priorities of law enforcement agencies, they fail to provide accurate data about the overall effect of these efforts on the illicit tobacco market. The tobacco industry has promoted their own instruments such as the empty pack surveys (EPS) as a proxy indicator about the impact of the overall institutional response on national and regional level against ITTP. However, EPS data also receives many criticisms both from academics and law enforcement practitioners.

The current analysis for the first time cross-compares these two large datasets on illicit tobacco – EPS data collected by tobacco companies and seizure data collected by police and customs authorities. As a result of the comparison and analysis, two sets of innovative instruments were developed to assess the role of two very important factors – police performance and use of corruption.

The first instrument is the **index of police effectiveness in seizing illicit cigarettes**. The index of police effectiveness in seizing illicit cigarettes was developed as a part of an **integrated model for illicit cigarettes market assessment**, which

10 Executive summary

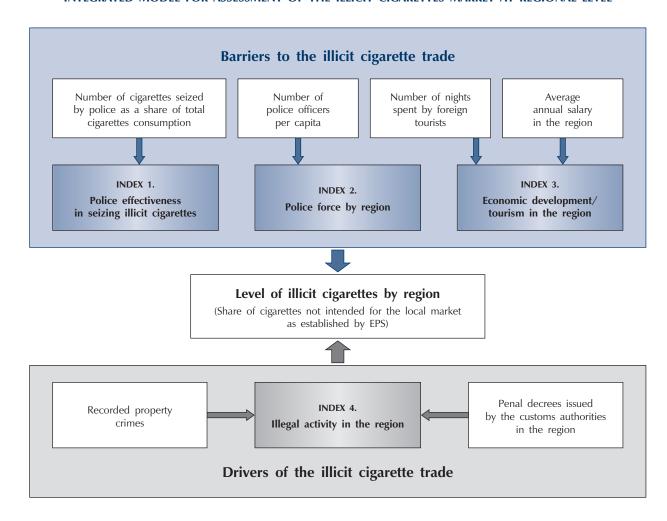
demonstrates the potential for a more comprehensive assessment of police performance, despite the constraints imposed by the lack or insufficiency of various types of data at sub-national level.

The second instrument is the **cigarette brands seizures deviations index** (SDI) as a method to identify the potential presence of privileged actors at local illicit tobacco markets and thus red flags for potential corruption practices. SDI is a good example of how data on police seizures collected in previous years along with EPS data can be used to support decision-making in law enforcement and revenue administration. The instruments have been piloted in four EU countries – Bulgaria, Italy, Greece and Romania.

Assessing police performance in seizing illicit cigarettes

Even when the performance of law enforcement agencies is satisfactory, other unrelated factors might result in the increase of illicit tobacco consumption registered through EPS. In order to assess the effect law enforcement has on ITTP, a more comprehensive model of the drivers of the illicit tobacco market is needed.

INTEGRATED MODEL FOR ASSESSMENT OF THE ILLICIT CIGARETTES MARKET AT REGIONAL LEVEL

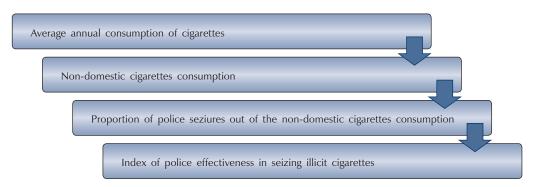


The preliminary mapping of the factors which determine the levels of illicit cigarettes, identified a total of 25 distinct factors and a test was conducted of their effect on the proportion of non-domestic cigarettes at regional level. Out of them, six variables turned out to produce a significant effect on the level of illicit cigarettes. They were grouped in four indexes to form a comprehensive model for the assessment of the illicit cigarette market at the regional level.

The factors found to have statistically significant influence on this illegal market are grouped into those obstructing it (barriers) and those facilitating it (drivers). Among the former, two key barriers linked to the operation and capacity of regional police units are the **police effectiveness in seizing illicit cigarettes** and **police workforce** – the higher the value of these indexes in a particular region, the lower the share of illegal cigarettes. The other factors constraining the illicit market are the level of **economic development and tourism in the region**. In terms of enablers, the general level of **illegal activity in the region** (calculated on the basis of property crimes recorded by Mol and tobacco-related administrative offenses penalised by the customs authorities) was found to facilitate the illegal cigarette trade – the higher the index of this factor for a given region, the bigger the proportion of illicit cigarettes in it.

The availability of data did not allow all four indices to be calculated for all four countries. The only index that has been calculated and validated for all four countries is police effectiveness in seizing illicit cigarettes. The index of the effectiveness of regional police forces in countering illicit cigarettes was conceived as a response to the continuing debates among law enforcement bodies, the tobacco industry and experts concerning the most appropriate indicators for police performance. The effect law enforcement agencies have on the illicit tobacco market is in theory achieved through policing. Policing of this criminal market involves two main interventions: investigation and apprehension of perpetrators, and seizing of illicit cigarettes. The first assumption is that by virtue of apprehending offenders, law enforcement agencies disturb the supply chain and thus limit the capacity of criminal networks to maintain a steady supply of illicit cigarettes. The second assumption is made regarding the seizures of illicit products - the more cigarettes are seized by the authorities, the lesser amounts of the product remain in the illicit supply chains and the less profitable the operation becomes. This causation could lead to either a decline of profit margins or increase of prices for the end-users, which ultimately also leads to shrinking of the illicit market.

MEASURING POLICE EFFECTIVENESS AT REGIONAL LEVEL

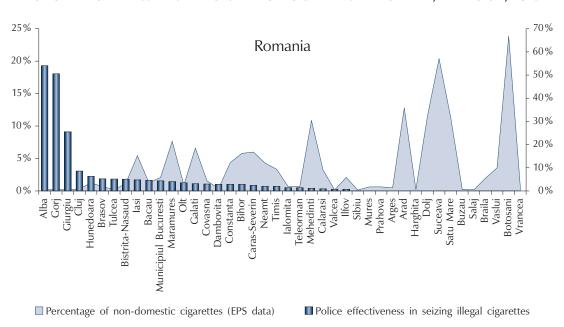


12 Executive summary

The pilot testing of the model showed that from the two kinds of police interventions only the number of seized cigarettes has a significant effect on the level of illicit cigarettes at the regional level. Thus, the analysis confirmed that seizures could be used as an indicative measure of police effectiveness. When this indicator is compared to EPS data it allows a comparison of the performance of regional forces.

The index allows for more precise assessment of the impact of police efforts to curb the illicit market on regional level, since it puts in context the outcomes of their activities. Thus, it allows to establish more accurately the performance of the regional structures instead of simply comparing the EPS score of non-domestic cigarettes, since this level is obviously driven by other external factors as well. The comparison of the share of non-domestic cigarettes at regional level with the police effectiveness in seizing illicit tobacco clearly demonstrates that police activity is an important, although not the only factor determining the level of illicit cigarettes' consumption.

POLICE EFFECTIVENESS IN SEIZING OF ILLICIT CIGARETTES IN ROMANIA, BY REGION, 2016



Measuring vulnerability to corruption in police enforcement

Similarly to many other forms of corruption, the use of corruption by organised crime is a hidden phenomenon and it is thus difficult to measure its level directly. A way around this difficulty is to use **indirect indicators** such as presence of significant deviations in the implementation of the legally prescribed functions of the competent authorities or in other words presence of **selective police enforcement** and indicators on the presence of market actors with a significant advantage over the others. A similar approach is used to assess levels of state capture by way of the of the recently developed **State Capture Assessment Diagnostics**¹ instrument.

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¹ CSD. (2019). State Capture Assessment Diagnostics, pp. 39-40.

State capture is a specific type of corruption that involves illegitimate participation in the rule-making process, which brings benefits to both the legislator and private actors who provide resources.² The diagnostic tool of state capture relies on measuring proxies for the existence of privileged actors (in the economy or in a given sector) or deviance in the behaviour of public institutions (either from a good governance standard or from expert expectations/average for the country/ sector). The proxies indicate state capture vulnerabilities in different dimensions, rather than being direct evidence for a realized capture.³

The current analysis follows a similar approach and presents a new tool - the cigarette brands seizures deviations index (SDI). The SDI allows to identify potential corruption vulnerabilities in the law enforcement practices with regards illegal cigarette trade at an early stage. The index allows to flag up indications of the presence of privileged actors in the illicit market for tobacco products. This is possible because the structure of the criminal market is contingent on the illicit cigarette brands - that is, the various criminal networks have access to different sources of illicit cigarettes and therefore usually smuggle or trade in different brands. Thus, illicit cigarette brands may be used as an indicator for identification of the particular criminal network that smuggles or distributes them. In many cases the smooth operation of these actors is greased with bribes towards customs or law enforcement officials. Organised crime uses corruption payments in order to lower risk of apprehension or seizure of the illicit product and in some cases manage to attain protection and certain competitive advantage over rival criminal competitors on some or all levels of the illicit supply chain. This in turn is expected to result in lower number of seized illicit cigarettes from particular brands.

The anomalies and **deviations captured by the SDI** are instances where the amount of one or a group of illegal brands seized in a particular city is substantially lower than the average national level. For this purpose, annual data on levels of seizures by police nationally are compared to EPS data regionally, which allows to identify problematic brands with significantly lower seizures. The **reasons for these deviations** may vary: from significant level of cross-border travellers that legally import a popular cigarette brand, a new criminal network entering the market, the emergence of new supply channels or presence of resilient corrupt practices among law enforcement in regional structures.

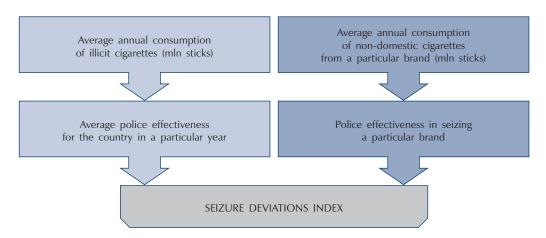
Calculating the SDI involves first assessing the annual illicit tobacco consumption in a country by brand, then obtaining the average level of police seizures by the same brands at the national level and finally comparing seizure levels to the average police efficiency in seizing illicit cigarettes country-wide. SDI thus shows the deviations in levels of seizures for each of the seized brands compared to the average levels of seizures in the country, thereby determining the highest-risk brands in the country.

Hellman, J., Jones, G., and Kaufmann, D. (2000). Seize the State, Seize the Day: An Empirical Analysis of State Capture and Corruption in Transition Economies. World Bank Policy Research Working Paper 2444. Washington D. C.: World Bank.

³ CSD. (2019). op.cit., p. 39.

14 Executive summary

SDI COMPOSITION



The high market share of a non-domestic brand can be used as an indicator for the presence of a competitive advantage such as high recognition and preference for the brand, better quality, low price and easy opportunity to be bought from a neighbouring country or well-established network for illicit distribution. The **simultaneous presence of significant anomalies (deviations)** in seizing a certain brand and a **high market share among illicit cigarettes** in a particular town is considered to be indicative of the potential presence of privileged criminal actors and, thus, indirectly – potential corrupt practices. Thus, for example the application of SDI in Italy identified 13 high-risk brands in 2016 with the highest SDI score of 100. The analysis of their regional distribution reveals that EPS has registered considerable amounts of these brands in 6 Italian cities – Catania, Milan, Naples, Palermo, Turin and Trieste. In each of the cities, one of these high-risk brands holds the major share of the illicit market.

POTENTIAL LOCAL PRIVILEGED CRIMINAL ACTORS IN ITALY IDENTIFIED USING SDI AND EPS

CATANIA, 2016			PALERMO, 2016		
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI
PINE	47.62%	100	PINE	33.23%	100
MARLBORO	9.52%	100	ORIS	14.77%	100
AMERICAN LEGEND	4.76%	∞	EGINA	12.92%	100
ORIS	4.76%	∞	BUSINESS ROYALS	7.08%	100
REGINA	4.76%	∞	MARLBORO	4.00%	100

NAPLES, 2016			MILAN, 2016		
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI
REGINA	24.90%	100	MARLBORO	36.41%	100
MARLBORO	13.15%	100	WINSTON	11.52%	100
MARBLE	9.31%	100	L&M	7.37%	100
GOLD MOUNT	7.85%	100	CHESTERFIELD	6.91%	100
WINSTON	4.60%	100	REGINA	5.99%	100

TURIN, 2016			TRIEST, 2016		
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI
REGINA	31.05%	100	MARLBORO	30.44%	100
MARLBORO	18.93%	100	WINSTON	13.84%	100
WINSTON	11.21%	100	CHESTERFIELD	12.92%	100
CHESTERFIELD	9.49%	100	CAMEL	7.38%	100
MARBLE	5.17%	100	L&M	5.54%	100

Source: CSD calculations based on EPS and Italian Customs and Monopolies Agency seizure data.

The two innovative measurement methods provide law enforcement and revenue authorities with a whole new range of instruments against this illicit market and corrupt practices related to it. To capitalise on these new tools and the preliminary results from their piloting, **policy actions** are required in the following areas:

- The use of quantitative indicators for assessing the effectiveness of law enforcement against illicit cigarette is a cost-efficient way of diagnosing vulnerabilities and threats at regional level.
- Improving the operation of police and customs services at regional level needs to be complemented by broader measures against other factors facilitating this illegal trade – economic development of the region, levels of the grey economy and high-volume crime.
- The tobacco companies should start **sharing with the public institutions the complete EPS regional datasets** on the presence and market share of non-domestic cigarette brands. Timely access to the brands data can significantly help in identifying active criminal groups in each place and, respectively, in the efficiently and timely uncovering of illicit supply and distribution channels, thus aiding police investigation.
- Law enforcement and revenue authorities should consider **more detailed recording of seized illicit cigarettes** that would allow not only to record the quantities, but also for each seizure to register the brands of seized cigarettes, exact time and location of seizure and institution responsible for the seizure.

INTRODUCTION

The illicit trade in tobacco products (ITTP) is a major concern not only from economic, but also from public health and crime perspectives. In order to fight these adverse social and economic effects of ITTP, a plethora of binding international, EU and national legal acts have been adopted, including the *Framework Convention on Tobacco Control* of the World Health Organisation, and the *Tobacco Products Directive* and the Second Action Plan to fight the illicit tobacco trade 2018 – 2022 of the European Union.

The Balkan countries and Italy have long played an important role in ITTP, and especially as regards cigarettes. Greece is one of the main and long-established entry points for illicit tobacco in the EU⁴ and a major hub for all Balkan criminal networks.⁵ Since 2000, Greece has become a key entry point and a source of 'illicit white' cigarettes for the EU.⁶ This was the onset of a resilient and hard to curb transnational criminal infrastructure stretching across the infamous Balkan route. Upon entering Greece, the 'illicit whites' were further trafficked either to Italy and Western Europe or through Bulgaria and Romania to Central European markets.⁷ Romania, on the other hand, is also an important entry point and transit country for contraband cigarettes from Belarus, Moldova, Russia and Ukraine towards the lucrative markets in Western Europe, including Italy.⁸

The current report focuses on the illicit tobacco threat and the effectiveness of policies against it in four EU countries along the Balkan route – Bulgaria, Italy, Greece and Romania. The analysis addresses the vulnerabilities and threats posed by the ITTP by focusing on the three main aspects:

- the institutional, legal and other factors from the broader socio-economic context impeding the effective response to ITTP;
- the performance of agencies tasked with countering the illicit market;
- new methods to measure the effects of corruption on the counteraction against illicit tobacco market.

The report presents the outcome of the development of **innovative methods** for **cross-comparison** of the data collected by the tobacco industry on illicit consumption and the data on seizures of illicit cigarettes collected by government agencies. These are extensive datasets, especially since in the last years government institutions have substantially improved and broadened their data collection.

⁴ Transcrime. (2016). The Eastern Balkan Hub for Illicit Tobacco.

⁵ CSD. (2015). Financing of Organised Crime. Sofia: Center for the Study of Democracy.

⁶ CSD. (2012). Serious and Organised Crime Threat Assessment 2010 – 2011. Sofia: Center for the Study of Democracy.

⁷ Transcrime. (2016)., op.cit.

⁸ Transcrime. (2016). The Belarussian Hub for Illicit Tobacco.

18 Introduction

These two comprehensive datasets, however, have rarely been analysed together so far. By collating information from them, the present report analyses the functioning of competent authorities at the sub-national level,⁹ thus allowing to pinpoint the weak links in the first-line of counteraction against illicit tobacco trade, support decision making process at the managerial level of the competent institutions, inform prioritisation and more efficient allocation of resources at regional level and aid prevention of corruption.

In order to establish the legal and institutional context of the fight against ITTP, the report first examines the major aspects of the tobacco sector in the four countries. The analysis highlights the **various vulnerabilities and threats deriving from the overall political, institutional and legal environment** in each country, the functioning of the legal tobacco industry, and the overall crime context in each country. It also explores the links and the collaboration between the criminal networks of the four countries.

Given the increasing emphasis on the need for evidence-based policy, the analysis then turns to methods of **measuring the phenomenon itself** and the **performance and effectiveness of law enforcement institutions in curbing it**. The integrated model for illicit cigarettes' market assessment outlined in the report is a method to account for the broader socio-economic factors that impact ITTP at regional level in each country. It is complemented by an index for the assessment of police/customs effectiveness in seizing illegal cigarettes as an objective quantitative measure of institutional performance. The index allows to assess the police effectiveness at regional level by juxtaposing the share of the seized illicit cigarettes with total illicit cigarette consumption. The integrated model is a comprehensive approach to the analysis of the combined effect of two types of factors: the ones linked to law-enforcement bodies' performance and the region-specific drivers and barriers to the illicit trade in tobacco products.

A key aspect of the capacity of law enforcement agencies – in general and with respect to fighting ITTP in particular – is their vulnerability to corrupting pressure from criminal entrepreneurs. The use of corruption by organised crime is well-known for its latency and, therefore, for the impossibility to measure its levels directly. The new method developed in this report goes some way towards overcoming this difficulty by detecting the potential presence of privileged actors on the illegal tobacco market in a given locality. The method draws on the assumption that the ultimate goal of criminals, when they resort to corruption, is to attain favourable position on the illegal market and secure protection from police/customs investigations. In order to detect such privileged market actors a cigarette brands seizures deviations index is constructed that juxtaposes illicit cigarettes' brand data reported by the industry and the law enforcement institutions. The index allows for the identification of significant deviations in the levels of seizing different cigarette brands at the regional level.

The report concludes with policy recommendations on the most effective ways to utilise the newly developed instruments, as well as possible steps to further refine and make them more reliable.

The four case study countries use different terminology and classifications of their territorial units. As this report will deal with both NUTS3 and NUTS2 levels in these countries, for readability purposes "regional" is used to refer to the various sub-national units.

1. THE ILLICIT TRADE OF TOBACCO PRODUCTS ALONG THE BALKAN ROUTE: BULGARIA, GREECE, ITALY AND ROMANIA

The Balkans have long been a key route for various illicit goods and flows – drugs, firearms, human trafficking and human smuggling.¹⁰ Since 2000, Greece has become a key entry point and a source of the so-called illicit white cigarettes.¹¹ This was the onset of a resilient and hard to curb transnational criminal infrastructure. Upon entering Greece, the illicit whites¹² were further trafficked either to Italy and Western Europe or through Bulgaria and Romania to Central European markets. These four countries are also the four member states at the bottom of the ranking in the EU in terms of levels of perceived corruption.¹³

The impact of the illicit trade of tobacco products (ITTP) worldwide is manifold – not only from economic, but also from public health and crime perspectives. ITTP encompasses criminal activities enjoying high levels of social tolerance and in many cases it is not even perceived as a socially harmful practice. Thus, despite its adverse economic and social impact, the ITTP is constantly expanding worldwide.¹⁴

A good indicator of the adverse social and economic effects of ITTP in Bulgaria, Greece, Italy and Romania are the budget losses due to evasion of taxes in each of the affected countries (Figure 1).

Apart from resulting in loss of budget revenue, ITTP is also generating huge profits for organised crime, which in turn translate into corruption, money laundering and distortion of fair competition. For example, in Italy ITTP is of great concern due to the presence of well-rooted mafia-type criminal organisations, such as the Camorra clans and the Sacra Corona Unita groups, which have been active in this market since the 1950s and 1960s, and in recent decades have started to collaborate with criminal entrepreneurs from Eastern European countries.

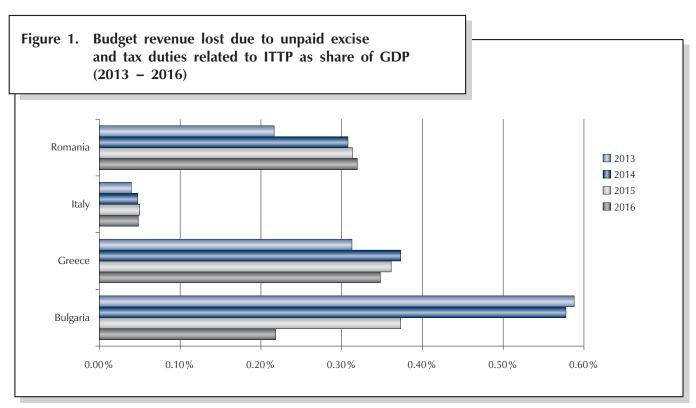
¹⁰ UNODC. (2008). Crime and its Impact on the Balkans and Affected Countries. Vienna: UNODC.

¹¹ CSD. (2012). *Serious and Organised Crime Threat Assessment* 2010 – 2011. Sofia: Center for the Study of Democracy.

Cigarettes that are usually manufactured legally in one country/market but which the evidence suggests have been smuggled across borders during their transit to the destination market under review where they have limited or no legal distribution and are sold without payment of tax.

See Control of Corruption in the 2014 World Bank World Governance Indicators, as well as the most recent 2016 Corruption Perception Index of Transparency International.

¹⁴ OECD, 'Smoking', *OECD Factbook 2015 – 2016: Economic, Environmental and Social Statistics*. Paris: OECD Publishing, 2016, p. 209.



Source: KPMG, Project Sun reports.

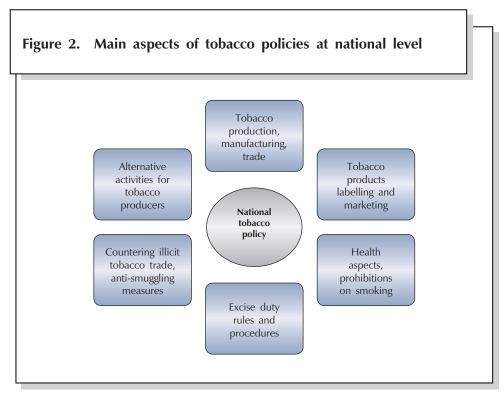
1.1. LEGAL FRAMEWORK ON ITTP

The national tobacco policies in Bulgaria, Italy, Greece and Romania largely reflect the main trends and developments set by the relevant international and EU regulatory mechanisms (Figure 2). The four countries, as member states of the European Union, have not only signed the *Framework Convention on Tobacco Control* of the World Health Organisation (WHO FCTC), but also comply with all European directives aimed at controlling the tobacco sector. The WHO FCTC, adopted in 2003, was the first international public health treaty with regards to tobacco. Its main goal is to tackle the social, health, economic, and environmental consequences of tobacco consumption and exposure to tobacco smoke. To this end, the WHO FCTC encompasses a multifaceted set of measures for reducing both the demand for tobacco (e.g. rules for labelling and packaging; restrictions on advertising, promotion, and sponsorship; price, tax, and non-price disincentives) and the supply of tobacco (e.g. countering illicit tobacco trade and sales to and by minors, provision of support for economically viable alternative activities).

The Protocol to Eliminate Illicit Trade in Tobacco Products, developed within the context of the WHO FCTC, embodies the main response of the international community to the cross-border illicit tobacco trade.¹⁵ The WHO FCTC Protocol aims at eliminating

European Commission. (2017). Progress report on the implementation of the Commission Communication Stepping up the fight against cigarette smuggling and other forms of illicit trade in tobacco products – a comprehensive EU strategy, COM (2017) 235 final, 12.5.2017

all forms of illicit trade in tobacco products. At the EU level, the core measures of WHO FCTC and the Protocol are incorporated in the Tobacco Products Directive.¹⁶



Source: CSD.

Other key EU legal acts that have been approximated in the national legislation of the four countries include the *Union Customs Code*, the EU regulations and directives with regard to excise duties, mutual cooperation and assistance in customs and criminal justice matters to prevent and counter fraud and organised crime. Thus, each of the countries has incorporated the minimum standards set forth in the above mentioned international and EU legal acts.

The *Union Customs Code* proved to be an important instrument of the customs modernisation process serving as an EU-wide customs regulatory framework. Among the objectives set forth in the Code is to ensure an electronic environment that provides for more effective personalised control based on risk analysis, including the risk of cigarette smuggling. Another important instrument in the fight against ITTP is *Council Regulation 2015/1525 of 9 September 2015*, which aims to improve the EU instruments for investigating and detecting customs and excise goods fraud, allowing investigators, inter alia, to juxtapose the import, transit, and export data concerning the movements of containers with excise goods, including data on cigarettes. The Regulation further facilitates the use of evidence obtained in one EU member state in proceedings before the administrative and judicial authorities of other member states.

Directive 2014/40/EU 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, OJ L 127, 9.4.2014.

However, each of the four countries has followed its own criminal justice response and established different institutional mechanisms to combat the illicit trade in tobacco products.

In 2013, the European Commission adopted an *EU Strategy on Fighting the Illicit Tobacco Trade*¹⁷ that clearly identified the main drivers behind this adverse phenomenon and outlined the major policy actions needed at EU level in order to curb it efficiently. The strategy was accompanied by the *Anti-Smuggling Action Plan*, which provided a timeline with specific measures to be implemented by the Commission, the European Parliament, the European Council, FRONTEX and all member states.¹⁸ In 2018, the European Commission also adopted the *Second Action Plan to fight the illicit tobacco trade 2018 – 2022.*¹⁹

Bulgaria

The cigarette and tobacco market in Bulgaria is shaped by excise taxation, state subsidies and the policy on counteracting illicit trade. The main legislative act regulating the manufacture, distribution and trade in tobacco and tobacco products in Bulgaria is the *Law on Tobacco, Tobacco Products and Associated Articles.*²⁰ The law defines the rules and procedures for trading in raw tobacco, industrial processing of tobacco, including the licensing of tobacco products manufacture, and trading in processed tobacco and associated articles such as electronic cigarettes. It contains both administrative and penal provisions.

The Law on Tobacco and Tobacco Products requires manufacturers to have registered as commercial entities and buyers of raw tobacco to obtain a valid permit (Article 4) obliging the latter to register the contracts they have concluded. To prevent illicit production of tobacco and tobacco products, Article 24 of the Law allows only licensed entities to participate at the production stage.

Excise policy and the implementation of the relevant excise and tax legislation are among the main factors influencing the illicit cigarette market in the country. Bulgaria is obliged to reach excise rates equal to the minimum levels in the EU. The much lower local income level and the tight alignment deadline, however, have turned this effort into a challenge.

The Law on Excise Duties and Tax Warehouses has been in force since 1 January 2006. It should be noted that the Law on Excise Duties and Tax Warehouses has

¹⁷ Communication from the Commission to the European Parliament. 2nd Action Plan to fight the illicit tobacco trade 2018 – 2022. Stepping up the fight against cigarette smuggling and other forms of illicit trade in tobacco products – A comprehensive EU Strategy. Brussels, 6.6.2013 COM(2013) 324 final.

Commission Staff Working Document [Anti-smuggling Action Plan] accompanying the document Communication from the Commission to the Council and the European Parliament Stepping up efforts to fight against cigarette smuggling and other forms of illicit trade in tobacco products – A comprehensive EU Strategy. Brussels, 6.6.2013 SWD(2013) 193 final.

Communication from the Commission to the European Parliament, the Council and the European Social and Economic Committee. 2nd Action Plan to fight the illicit tobacco trade 2018-2022. Brussels, 7.12.2018, COM(2018) 846 final.

Law on Tobacco, Tobacco Products and Associated Articles, promulgated SG No. 101 of 30 November 1993, last amended and supplemented SG No. 103 of 28 December 2017.

been regularly amended in response to changing market risks. In 2010, after a series of steep rises of the excise duty on tobacco products (2008 – 2010) and the expected expansion of the illegal market, penalties against illegal traders were drastically raised (2009 amendment to Art. 108a and Art. 112). By way of such amendments, the distribution of illicit tobacco products through the retail network has been successfully prevented. The Law's enforcement, however, has been more problematic. The courts have refrained from imposing high penalties on retailers selling tobacco products without excise trade license, reasoning that the sanctions are too severe (Article 108a, amended 2009),²¹ and, in case of minor violations, ruling suspension of the retail business. With a later amendment, the penalty for unlicensed retail sales has been reduced.

In February 2017, the Ministry of Finance issued a revised version of the *Regulation* on the *Implementation of the Law on Excise Duties and Tax Warehouses.*²² The Law itself was amended in December 2017 in an attempt to curb the advertising of illegal tobacco products online, which is a new trend replacing the public markets and bazaars in cities as the place to sell illegal cigarettes and hand rolling tobacco. The amendments also aim to regulate the rapidly expanding hookah market.²³

Excise legislation, however, like other legislation is not corruption-proof. At various times, particular components of the government's excise policy have been influenced by the lobbies of different companies from the cigarette industry. The changes made to the so-called excise calendar in 2015 and 2016 are a glaring example. At the start of its term in office (2014), the then government, after consultations with the industry, had planned to raise excise duty and the ratio between its specific and ad valorem components. However, this arrangement was broken to the benefit of a couple of cigarette companies.

The *Criminal Code* contains a number of provisions on illegal activities related to tobacco and tobacco products. Article 234 regulates the prosecution of offenses with excise goods, Article 242 refers to smuggling, while Article 321 governs the establishment, leadership and participation in an organised criminal group. Smuggling is also defined as a customs violation under Article 233 of the *Law on Customs*.

Over the last decade, the peaks in ITTP have frequently affected state revenue levels. Institutional response, however, has ranged from blocking measures aimed at curbing the illicit market for years to hasty efforts that miss the target. Legal and regulatory amendments and the lack thereof have depended on the political party balance in parliament and, often, on lobbyist interests. The *Law on Duty-Free Shops* was perhaps the most flagrant example of blocking – it took eight years and three parliaments to close down the high-risk duty-free commercial outlets at Bulgarian land borders. In other cases, anticipating the boost of illicit trade,

²¹ First-time violations are penalised by a fine of 50,000 BGN, whereas repeated violations result in a temporary closing of the retail outlet for six months.

Regulation on the Implementation of Law on Excise Duties and Tax Warehouses, promulgated SG No. 42 of 23 May 2006, last amended and supplemented SG No. 80 of 6 October 2017.

²³ Regulation Amending and Supplementing the Regulation on the Implementation of Law on Excise Duties and Tax Warehouses, promulgated SG No. 42 of 23 May 2006.

hasty legislation was adopted containing such severe sanctions against commercial outlets that a large number of them have had their operations suspended, and some have gone bankrupt.

In addition, in times of steep illegal market growth the law enforcement and revenue administrations' response tends to be slow due to the time needed to catch up on human resources and funding.

Greece

The corner stone of the Greek legal framework for countering of ITTP is the *National Customs Code (Law 2960/2001)*, which, among other issues, addresses tobacco smuggling. In accordance with the Code, smuggling is considered an offence against the customs regime while at the same time it is also a criminal offense. Therefore, persons convicted for these actions are subject to a double punishment – administrative (the "multiple charge payment") and penal (fine or imprisonment). A "customs offense" is defined as *(a)* non-observance of the *Customs Code* formalities relating to customs services *(b)* evasion or attempted evasion of duties, taxes, etc.; and *(c)* failure to conform to the formalities provided for in Article 155 concerning smuggling.

The acts of smuggling are criminalised proportionally to the size of public revenue losses. Smuggling is considered a misdemeanour, if the duties and taxes due to the state or the European Union do not exceed 50,000 EUR. When the due customs duties and taxes exceed 150,000 EUR, smuggling constitutes a felony. When the customs duties, taxes and other charges for the smuggled goods do not exceed a total of 70,000 EUR, the perpetrator can avoid seizure of property and criminal prosecution, by paying directly the customs duties, taxes and other charges.

Regarding the existing legislation, a number of criticisms have been expressed by experts from the Greek customs and law enforcement authorities. First of all, the provisions of the *National Customs Code* allow perpetrators to claim that the value of the evaded duties and taxes is below the threshold of 150,000 EUR and thus to avoid criminal prosecution and imprisonment. Smugglers also take advantage of this gap to avoid higher penalties. Additionally, experts pointed out that there were several cases where ships were confiscated and subsequently auctioned by the authorities, but at the end the same criminal network bought them back at a minimal price to use them again for smuggling.

Italy

The main legal acts within the Italian legislative framework that aim at prevention and counteraction of the ITTP are the *Decree of the President of the Republic n. 43 of January 1973*, where Article 291 defines the crime of criminal association for cross-border smuggling of tobacco (the crime is punishable by imprisonment from 3 to 8 years for the promoters of the association, and from 1 to 6 years for those who participate in it); *Title III of Law n. 907 of 1942*, Art. 64 regulating the crime of domestic smuggling; and the *Criminal Code*, specifically Article 416 on "Criminal association" (for crimes committed by 3 or more individuals) and Art. 416 bis on "Mafia-type association".

A recent legislative amendment concerning the decriminalisation of offences subjected to a fine, have impacted the regulation and combatting of ITTP. The *Legislative Decree n. 8 of January 15, 2016* has included among the decriminalised offences the contraband of illicit tobacco products when the quantity smuggled or sold is below 10 kg. Since this criminal activity is carried out by transnational organised crime groups, in practice the effect is to avoid punishing sellers of illicit tobacco products applying custodial sentences, following the perception of the general public that ITTP creates less social harm.

Romania

In Romania, the main act regulating the tobacco industry is *Law no. 201/2016* on the establishment of conditions concerning the manufacturing, presentation and marketing of tobacco and related products. Another instrument regulating the subject is *Law no. 236/2003* which concerns the raw tobacco market. The law regulates the complete tobacco's supply chain, from raw leaf to fine cigarette. It starts with the delivery operations from local producers to first-processing units, regulates the associations and cooperation among producers, authorization of first-processing units and quality standards.

The *Tax Code*²⁴ includes provisions for tobacco products and for producers. The income from farming and cropping tobacco from land tracts below 1 ha is considered non-taxable income. All processed tobacco (cigarettes, cigarillos, and smoking tobacco) is considered excisable product with the exception of that used exclusively for scientific testing and quality control. The *Tax Code* defines also the responsibilities of authorized warehouses and importers for the destruction of confiscated processed tobacco. In respect to criminal liability, the law considers a crime holding outside a fiscal warehouse or selling on Romanian territory of excisable products without being labelled or labelled inappropriately or with false labelling above the limit of 10,000 cigarettes, 400 cigarillos of 3 grams, 200 cigarillos larger than 3 grams, and over 1kg of fine-cut tobacco. What is below these limits is considered an offence subject to fine and confiscation. The production of processed tobacco outside an authorized fiscal warehouse is also considered to be a criminal offence.

The *Customs Code*²⁵ is one of the most important legal acts with regard to ITTP. In the crimes section, it defines smuggling as importing or exporting from the country, by any means, of goods through places other than those established for customs control. Collecting, holding, producing, transporting, taking over, storing, handing over, or selling of goods to be placed under a customs procedure knowing that they are smuggled or intended to be smuggled is also assimilated into smuggling. Removing from customs control of goods placed under a customs regime, while being in a place set for customs control, is also considered smuggling if the customs value of the goods is greater than 20,000 RON (4,378 EUR) in the case of products subject to excise duty such as tobacco products. Removing from customs control of goods subject to excise duty with a customs value lower than 20,000 RON is considered an offence to be sanctioned by a fine and confiscation of the goods.

²⁵ In force from 10 April 2006.

²⁴ Law no. 227/2015.

The Emergency Ordinance no. 54/2010 on some measures to combat tax evasion is currently under intensive public debate. The Ordinance regulated the duty-free shops, among other provisions. In the explanatory note of this Ordinance, the government claimed that in 2009 duty-free shops were responsible for 40% of cigarette smuggling on Romanian territory and 93% of the receipts for the purchase of cigarettes in this type of shops were false. Also, the contribution to the state budget of these companies was insignificant, the operations being economically not reasonable. Thus, by Emergency Ordinance no. 54/2010, the duty-free shops were strictly regulated: 100,000 USD authorisation tax per shop, maximum selling quantities per person for cigarettes and other products, restriction of fiscal benefits. The effects of the Ordinance have been positive as the smuggling by duty-free shops stopped. Although being in force, Emergency Ordinance no. 54/2010 has to be approved or repealed by parliament, but in the last seven years it has been blocked in the parliamentary committees. In February 2017, the government informed parliament that it does not support anymore the Emergency Ordinance no. 54/2010 and asked that the Ordinance be repealed. Repealing the Ordinance will put in force the former regulation and cigarettes smuggling is expected to get a boost again through the duty-free shops.

The latest draft legislation with impact on ITTP is the proposal to award 15% of the amounts recovered by tax authority to the public sector employees who contributed to the recovery. Such a measure has been applied before 2000, when customs control teams used to receive 10% of the value of the products they confiscated. This measure has been repealed after 2000 because detecting smuggling is part of the regular duties of customs employees and they are compensated by a monthly salary.

1.2. INSTITUTIONAL FRAMEWORK AT NATIONAL AND REGIONAL LEVEL

The fight against ITTP in the four countries is in the remits of police and customs authorities. The institutional frameworks, the territorial organisation, and the jurisdiction of institutions involved in the fight against ITTP on regional level is quite diverse and does not always match the administrative divisions in each of the four countries.

Bulgaria

The competent authorities with regard to the fight against ITTP in Bulgaria are the Customs Agency, the General Directorate National Police, the General Directorate Border Police and the General Directorate for Combating Organised Crime. The institution authorised to apply the excise legislation is the Customs Agency. The Customs Agency is responsible for administrative control over the import, export, and trading in excise goods. It also has investigative powers in regards to aggravated violations of customs regulations. The Customs Agency is also engaged in electronic exchange of documents on the movement of excisable goods

²⁶ Emergency Ordinance on Some Budgetary Measures and Amending Some Normative Acts, published on 27 December 2017.

under duty suspension arrangements. In 2013, it introduced the Bulgarian Excise Centralised Information System. The territorial jurisdiction of the agencies engaged in the fight against ITTP, however, does not overlap with the administrative division of the country.

The Ministry of Interior (MoI) is the main authority investigating crimes related to the illicit manufacture, distribution and transportation of tobacco and tobacco products. Within the MoI responsibilities are divided as follows: the General Directorate for Combating Organised Crime (GDCOC) focuses its efforts on countering organised crime groups, the General Directorate National Police (GDNP) counteracts the spread of illicit tobacco products at the regional level, while the General Directorate Border Police tackles the smuggling of tobacco products. Since 2010, fighting illicit trade in tobacco products has become a priority for GDCOC and GDNP, leading to the transfer of resources from other key areas such as drug trafficking, car theft, etc.²⁷ The National Police is the only body with directorates covering all 28 administrative districts of Bulgaria. GDCOC has 12 regional units, while the Border Police has seven territorial units and operates in border areas and at airports. The Customs Agency has six territorial directorates further subdivided into nine territorial customs units responsible for areas of various sizes or specialising in certain issues.

Greece

The main agencies involved in countering ITTP in Greece are the Hellenic Police, the Directorate-General for Customs and Excise Duty, the Hellenic Coast Guard, and the Special Secretariat for Financial and Economic Crime Unit. However, official data clearly indicate that the two bodies handling the majority of the seizures of illicit tobacco products in Greece are the National Police and the Directorate-General for Customs and Excise Duty. The police have been involved in most of the cases related to ITTP, while the customs authorities seized the larger part of the quantities on an annual basis.

There are several divisions of the Hellenic Police tasked with different aspects of ITTP. The illicit trade in cigarettes at street level falls under the remit of the Hellenic Police and its regional police departments. The cases related to organised criminal activity are the responsibility of the Subdivision for Combating Organised Crime and Trafficking, which operates at the Public Security Division of Attica and Thessaloniki Region. The Directorate of Economic Police (DOA) has the mission of preventing, investigating, and supressing financial crimes against the financial interests of the state and the national economy which have characteristics of organised crime. DOA has offices in Athens (Attica Region) and in Thessaloniki (Macedonia Region) and cooperates with all regional police departments.

The Hellenic Directorate-General for Customs and Excise Duty is subordinate to the Independent Public Authority for Public Revenue, a new authority which succeeded the Ministry of Finance's General Secretariat for Public Revenue in January 2017. The customs service has 107 regional units, which are located in all regions of the country. Customs officers are granted special investigative powers

²⁷ Interviews with MoI and Customs Agency officials.

with regard to smuggling, tariff-evasion offences or any other breach of customs regulations. To reinforce the Customs Authorities, three Mobile Control Units in Customs offices in Piraeus, Thessaloniki and Serres were established in 2015. A Special Department for Sea Controls has also been established within the Customs Control Service of Attica (Athens greater area), authorised to conduct control using specialised anti-smuggling vessels.

In 2015, the General Secretariat against Corruption (GSAC) was established in order to ensure coordination between the competent domestic services and agencies, active in the field of the ITTP. GSAC has also been designated as the national anti-fraud coordination service, in order to ensure cooperation with OLAF. The Coordination Centre to Combat Smuggling was created in 2016 with the purpose of combating the smuggling of products, subject to excise tax (tobacco, fuel and alcohol). It coordinates the services involved in the prosecution of smuggling and the reception, analysis, processing of all available information. The Coordination Centre operates as a national intelligence unit and is composed of specifically assigned experts from several services: the Independent Authority for Public Revenues, the Greek Police, the General Secretariat against Corruption, and others.

Austerity measures and other financial restrictions in public spending have had a serious impact on the capacity and effectiveness of LEAs and the criminal justice system in Greece as a whole. A number of experts, interviewed under the current study, identified the insufficient human resources and the lack of technological equipment and infrastructure as major obstacles to the effective fight against ITTP. Furthermore, the institutional gaps, the legislative decisions and their application and the severity of penalties have been at the centre of criticism for many years. Despite the increasing severity of penalties and the improved control over the market, organised crime groups continue to expand their activities.

Italy

The Customs and Monopolies Agency and the Financial Police Force are the main public authorities tasked with preventing and countering the illicit trade in tobacco products in Italy. The Customs and Monopolies Agency monitors, controls, and verifies the movement of goods and the due payment of customs and excise duties, through agents that also have judicial police powers. This authority has the function to counter tax offenses, including ITTP. It is organised into regional, interregional and provincial directorates and has presence in all the provinces of Italy.

Guardia di Finanza is the financial police force, structured into central and territorial units dedicated to countering the illicit trade in tobacco products with specialised police agents. The Central Service of Investigation on Organised Crime (SCICO) has informational, technical, logistic role and it also exerts operational coordination of the Investigation Groups on Organised Crime (GICOs), which operate at regional level. SCICO also provides logistical and operational support to GICOs and collects data on seizures and investigations. GICOs carry out investigative activities against criminal associations and organised crime groups involved in the illicit trade of tobacco products and are present in 26 cities in all Italian regions, where Anti-Mafia District Directorates (DDAs) are present.

The National Anti-Mafia and Anti-Terrorism Directorate (DNA) coordinates and support 26 Anti-Mafia District Directorates (DDAs) in all Italian regions and police forces in investigating serious organised crime, including those involved in ITTP. Among Italian prosecutor offices, DNA and DDAs are the only units dedicated to the prosecution of mafia-type criminal organisations, also with regard to tobacco smuggling (Law n. 92 of 19 March 2001).

Cooperation among these institutions, and with European and other international counterparts, is governed by agreements and conventions, while the exchange of data on ITTP at the national level is still lacking complete coordination and systematic gathering. In an effort to address this issue, the Observatory for the Fight of Contraband and Counterfeit Tobacco Products was established in 2014 as a result of a joint initiative of the University of Padua, the Customs and Monopolies Agency, the Guardia di Finanza, the Ministry of Economic Development, and tobacco manufacturers. The Observatory gathers various data on the illicit tobacco trade and conducts research and analysis. It also develops and promotes prevention and control strategies.

Romania

The main authorities which are responsible for combating smuggling and illicit trade in cigarettes and tobacco products in Romania are the General Inspectorate of Border Police, the Directorate-General Customs (DGV), and the Romanian Police. Other authorities with mandate are the Directorate for Investigating Organised Crime and Terrorism (DIICOT), the Romanian Gendarmerie and the local police.

The Directorate-General Customs operates within the National Agency for Fiscal Administration (ANAF), which is subordinate to the Ministry of Public Finance. The Directorate has mandate in the application of the *Customs Code* of Romania and the *Fiscal Code* as regards excises for the entire territory of the country. DGV is hierarchically organized and the central structure coordinates and guides at the territorial level eight regional customs directorates, where 89 border customs and customs offices (BVF and BVI) are established.

The Romanian customs authorities experienced turbulent times in the past 5 years. Prior to 2013, they were a separate agency – National Customs Authority (ANV) subordinate to the Ministry of Public Finance. In 2013, ANV lost its legal status and was transformed into a directorate within the National Agency for Fiscal administration (ANAF). Following the restructuring, 120 mobile control teams have been disbanded, including canine-assisted teams. The main anti-smuggling activity indicators were severely affected by the 2013 reform: the number of seized cigarettes dropped to half compared with the previous year, the value and the number of fines dropped by 36% and 27% respectively. The mobile and canine-assisted teams were re-established in September 2016 as part of a plan to fight cigarette smuggling. After the 2013 reform, the illicit trade rose from 11.8% of total consumption in July 2013 (the ANV reform time) to 17% in July 2014 and 19.2% in January 2015.²⁸

Novel Research, Comerţul ilicit cu ţigarete August 2008 – Mai 2016, https://www.novelresearch. ro/comertul_ilicit/

Romanian Border Police is also one of the important institutional actors in the fight against illicit traffic with tobacco products. The Romanian Border Police is responsible for combating cross-border crime committed in its zone of competence, smuggling of goods and products subject to the customs and tax regime of Romania. The Border Police has regional divisions in all border counties of the country, including the counties at the Black Sea coast. The General Inspectorate of Border Police (IGPF) is the central structure with territorial competence for the entire area of border police responsibility. It reported confiscation of 25 million of cigarettes packages throughout 2014 – 2017.²⁹

The Romanian Police is a specialised institution subordinated to the Ministry of Internal Affairs and tasked with protecting fundamental rights and freedoms, private and public property, preventing and detecting crimes, and maintaining public order. Its structure matches that of the administrative-territorial division of Romania. Within the organisational structure of the Romanian Police, inspectorates with legal personality are established at county level (NUTS3); other specialised units are also established for the prevention and fight against organised crime, such as the Department for Combating Organised Crime.

DIICOT has the legal mandate to investigate smuggling committed by organised crime groups. For the crimes not involving an organised crime group, the investigation is conducted by regular prosecutor's office. DIICOT reported that the main priority is human trafficking, drugs and cybercrime, with economic crimes – such as cigarette smuggling – having a lower priority. Nonetheless, DIICOT reported that the complex smuggling cases with impact on the economic and financial sector will be finalised and treated with celerity.³⁰ DIICOT has to cover the entire organised crime spectrum in Romania but it lacks resources: equipment, software/data bases and appropriate headquarters. Thus, for instance, a prosecutor has in average 100 cases/year, being able to finalize only half of them.³¹

1.3. THE LEGAL TOBACCO SALES

The legal market for tobacco products in Bulgaria, Greece, Italy and Romania has followed very similar development in the recent years. Following the liberalisation of the tobacco sector, the major international tobacco companies hold between 80% and 90% of the markets in each of the four countries, although certain national producers had managed to keep their presence on national level.

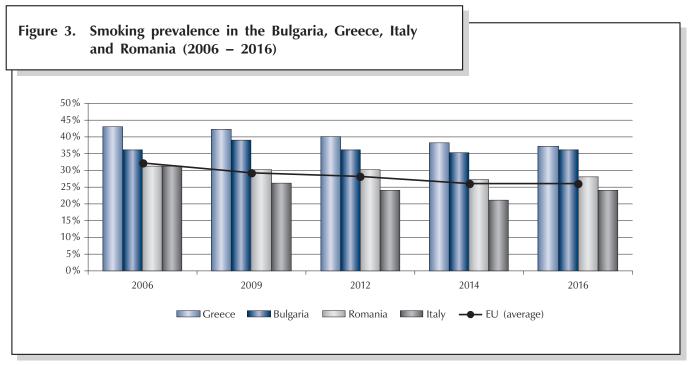
The consumption of tobacco products differs in the four countries. When compared with the average EU levels of cigarette consumption, Greece and Bulgaria are with the highest prevalence of smoking in all member states. The smoking prevalence in Romania is close to the average for EU, whereas Italy is the only country with smoking prevalence below the average.

²⁹ IGPF Press Release, 05 July 2017.

³⁰ DIICOT. (2016). Annual report, p. 7.

³¹ Interview and DIICOT. (2016). Annual report, p. 11.

Moreover, in all countries except Bulgaria, there is a steady trend of declining cigarette consumption among the overall population (Figure 3).



Source: Eurobarometer.

Bulgaria's accession to the EU in 2007 led to the dissolving of the state monopoly on tobacco products that had been maintained up to this moment. In the first months of 2007, five multinational corporations entered the local market: Philip Morris International, British American Tobacco, Japan Tobacco International, Imperial Tobacco and the Greek Karelia. Within a year their market share reached 23%. In 2008, two of the factories of the former state monopolist Bulgartabac were sold at the stock exchange to two Bulgarian companies that entered the tobacco products market with the brands Kings Tobacco International and Sluntse Stara Zagora -Tabac. By 2009, there were already 7 major players on the Bulgarian tobacco market: Bulgartabac with a market share of 49.1%, Philip Morris International with 13.9%, British American Tobacco with 13.5%, Kings Tobacco with 5.7%, Karelia with 12.2%, Japan Tobacco International with 3.2%, and Imperial Tobacco with 1.8%. Since 2010, the severe competition between the market players led to further expansion of the major international tobacco companies and Karelia at the expense of Bulgartabac. In April 2017, a major shift in the legal tobacco market occurred. Following the purchase of all Bulgarian brands of Bulgartabac and its distributor Express Logistics and Distribution for 100 million EUR,³² British American Tobacco became the market leader with a share of 40-42%.

The consumption of tobacco products is hugely popular in Bulgaria and usage is heavy. The country ranks second in the EU according to several national

³² Capital weekly, "Peevski Sells His Cigarette Business to British American Tobacco", 12 April 2017.

representative surveys, the average percentage of smokers in the period 2006 – 2017 varying from 35 to 39%.³³ Eurobarometer data from 2017 shows that active smokers in Bulgaria were 36% of the population,³⁴ ranking the country second in the EU, preceded only by Greece (37%). Moreover, the average daily consumption is 15.9 cigarettes, above the EU average of 14.1 cigarettes.

In **Greece**, the major international tobacco companies have also gained dominance on the market, since the beginning of the 2000's. Today, there are two local companies active in manufacturing and export of tobacco products – Karelia Tobacco Company and SEKAP, which together hold about 20% of the domestic market. Phillip Morris International's affiliate Papastratos has 34-35% market share, followed by British American Tobacco with 19%, Japan Tobacco International with 14.8%, Imperial Tobacco with 11.6% and other smaller companies (0.2%), mainly active in the field of cigars, fine-cut tobacco and other tobacco products.³⁵

Apart from its importance for the labour market of the country, the tobacco industry is also a significant contributor to the state budget, with 7% of total tax revenues in the country derived from the taxation of tobacco products.³⁶

In **Italy,** Phillip Morris International is also a market leader with a market share of 50-51%, followed by Japan Tobacco International with 23-24%, British American Tobacco with 19-20%, Imperial Tobacco with 4-5%, whereas about 2% of the market is shared by other small local and foreign producers.

The only domestic manufacturer of cigarettes and smoking tobacco is Manifattura Italiana Tabacco S.p.A. (MIT). The market for vapour products has steadily expanded since 2015, comprising at present of more than 150 companies, involved in manufacturing, import or distribution. Innovation, product appeal and cost efficiency are considered to be the key factors leading to the increased demand for alternative products.³⁷

Smokers in Italy account for 24% of the population in 2017. The majority of the Italian population smokes between 10-19 cigarettes a day (45.9%), and the mean age to start smoking is 18 years old, the main reason being peer influence (53.2%). Cigarettes are the most common product smoked (94.3%), followed by hand rolling tobacco (14.8%), the use of which has been increasing since 2010. The major increase in the use of vapour products was registered in the period 2015 – 2016 (from 1.1% to 3.9%).

In **Romania**, the tobacco industry contributes approximately 1% of GDP and is the second largest contributor after the oil sector. According to the Ministry of Finance, among the top 10 contributors to the Romanian state budget in 2012, there were

³³ Flash Eurobarometer – Survey on Tobacco, 2009; Special Eurobarometer 429 – Attitudes of Europeans towards tobacco and electronic cigarettes, 2014.

³⁴ Special Eurobarometer 458 – Attitudes of Europeans towards tobacco and electronic cigarettes, 2017

³⁵ IOBE. (2013). The Illicit tobacco trade: Impact for the tobacco sector and economy Athens: IOBE.

³⁶ IOBE. 2016. Effects of the new tax increase on tobacco products.

³⁷ Euromonitor International. 2018. *Tobacco in Italy. Executive Summary. Passport.*

three tobacco producers: BAT (second place, 5.6 billion RON), PMI (fifth place, 1.9 billion RON) and JTI (ninth place, 1.3 billion RON). In the top 10 there are five oil companies, one energy company and the National Bank of Romania.

The biggest tobacco market players in Romania are British American Tobacco, Philip Morris International and Japan Tobacco International, forming an oligopoly market as their aggregate turnover accounts for 98% of the Romanian tobacco market.³⁶

British American Tobacco has the biggest market share with 54-56%, followed by Japan Tobacco International with 25-26%, Phillip Morris International – 13-14%, Imperial Tobacco – 4-5% and some other small producers with 1%.

All of these companies have both manufacturing and distribution facilities in the country. The producers cooperate with several major wholesalers: Aquila (Imperial Tobacco), Interbrands Marketing & Distribution (BAT and PMI), Punctual Comimpex (BAT, JTI, PMI and China Tobacco Hongta Hering), Simba Invest SRL (PMI), Amigo & Intercost (PMI, BAT, JTI). There are over 150 brands of cigarettes, most popular among these are Kent (BAT), L&M (PMI), Marlboro (PMI), Pall Mall (BAT) and Winchester (JTI).

Statistics regarding the consumption of tobacco and associated products indicate that 5 million packs of cigarettes are smoked in Romania every day. According to a 2016 nationwide survey conducted by the IRES Institute, there were 5 million smokers, including 4.4 million daily smokers. The expenses for smoking represent an average of 5% of the monthly household budget.

Raw tobacco

Apart from being countries with tradition in manufacture and consumption of cigarettes, Bulgaria, Greece and Italy also have long history in growing and processing of raw tobacco. The EU Common Agricultural policy reform introduced in 2004 abolished tobacco production quotas and related subsidies for tobacco growing, which resulted in sharp decline of tobacco cultivation areas, as well as of the volumes of production. The new policy decoupled financial support from productive activity.

During 2005 – 2007, the fields with tobacco in Greece decreased from 500,000 acres to less than 100,000 acres and the production volume from 108,000 tons to 22,000 tons. The number of farmers growing tobacco also decreased dramatically, from 48,000 in 2005, to 16,000 in 2010.³⁹ However, despite the reduction in tobacco cultivation volumes compared to the period before 2004, the share of tobacco production in the national economy continues to be significant and is even increasing.⁴⁰ Regardless of the discontinued subsidies for tobacco growing, during the last years tobacco cultivation in Greece is expanding again (Table 1).

³⁸ Competition Council Order no. 609/11.12.2014, paragraph 12.

³⁹ Karanikolas P., Goussios, J., Nellas, El., Tsiboukas, K. (2008). *Tobacco Cultivation and Its Development with the CAP*.

⁴⁰ Fillippidis, N. (30.01.2013). New Turn in Tobacco Cultivation.

Table 1. Cultivated land and tobacco production in Greece, 2011 – 2015

Year	Orienta	al type	Burley Virginia	
	Acres	Tones	Acres	Tones
2011	144,118	26,991	14,815	5,052
2015	169,623	26,736	29,304	10,296

Source: ELSTAT Annual Agricultural Survey – 2011, 2015.

The data from the Bulgarian Ministry of Agriculture, Food and Forestry also shows that following the accession to the EU the raw tobacco produce in the country dwindled from 41,100 tons in 2007 to 15,211 tons in 2016. The tobacco cultivation fields also decreased from 31,144 acres in 2007 to 10,049 acres in 2016.⁴¹

Italy is one of the biggest producers of raw tobacco in the EU.⁴² However, in the period between 2011 and 2016, a steady decrease was observed in the total size of tobacco fields across the country, from 22,424 acres to 15,938 acres, with the respective impact on the volume of produced tobacco. The total number of farmers has decreased by 85%, from more than 27,000 at the beginning of 2000s to only 4,000 at the end of 2017. The gradual reduction of public subsidies, coupled with the lasting economic crisis and ITTP have resulted in a 6% decrease in production on an annual basis since 2011.⁴³ These reductions in domestic production naturally led to an increase in imports, resulting in Italy becoming the second largest importer of cigarettes worldwide.

In Romania there is only one domestic company involved in the production of raw tobacco – Rom-Ital, which has over 300 contracts and collaboration agreements with Romanian private tobacco farmers. Its annual turnover is 6 million RON and it employs 67 people.

1.4. THE ILLICIT TOBACCO MARKET

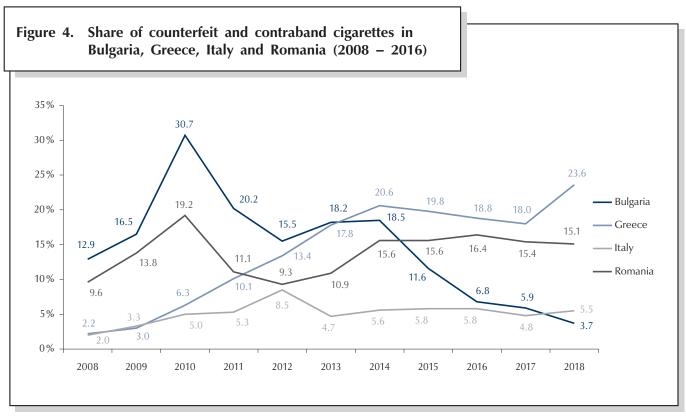
Bulgaria and Romania have long "traditions" in illicit tobacco trade rooted in the hardships of their transitions to market economy. Unlike them, Greece and Italy enjoyed lower levels of illicit tobacco consumption, which changed with the arrival of the global economic crisis in 2009. Thus, by 2012 illicit market soared from 2.2% up to 8.5% in Italy and from 2% up to 10% in Greece. The economic

⁴¹ Ministry of Agriculture, Food and Forestry, *Annual report on the situation and development of agriculture*, 2017.

⁴² Ministero delle politiche agricole alimentari e forestali, *Presentazione tabacco*, 2017.

⁴³ Confagricoltura, Contraffazione e contrabbando: tra prodotti agroalimentari e prodotti del tabacco in "fumo" un mercato illegale di circa 4mld di euro, 2017.

crisis has also led to a sharp increase in illicit tobacco consumption in Bulgaria and Romania as well. However, while Bulgaria and Italy managed to stifle the illicit market, Greece and Romania continue to face high levels of counterfeit and contraband cigarettes⁴⁴ (Figure 4).



Source: KPMG, The Sun Project Reports.

The latest available estimate of the ITTP revenues for the four countries is for 2013 and suggest that the biggest share of the illicit market adjusted by GDP is in Bulgaria, followed by Greece, Romania and then Italy (Table 2, next page). However, it should be noted that in the last five years the Bulgarian authorities have managed to curb the illicit trade by half, as evident from the EPS data in the Sun Project report.

The high tax burden on tobacco products is considered to be the main incentive for participation in ITTP and is one of the factors associated with the increase in illegal trade in all countries of the study. However, data from other studies show that ITTP has become larger even in countries with low tax leading to the conclusion that taxation is not the only contributing factor.⁴⁵

[&]quot;Contraband cigarettes" are genuine cigarette 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. "Counterfeit cigarettes" are illegally manufactured and sold by a party other than the original trademark owner.

Joosens, L., Raw, M., 2012, "From cigarette smuggling to illicit tobacco trade". Tobacco Control, 21, 230-234.

In the cases of Bulgaria and Romania, the swift and steep increase of excise duties – reaching 30-60% in a single year – with the aim to comply with the minimum thresholds established in the EU, have led to particularly detrimental consequences. The steep rise in the prices of the tobacco products made them hardly affordable given the low average income in the two countries. The increase of the excise duties also coincided with the global economic crisis during 2009 – 2011. Thus a pack of cigarettes reached 26% of the daily disposable income in Bulgaria and 20% of the daily disposable income in Romania. For comparison, the cost of a pack of cigarettes is equal to 8-9% of the daily disposable income in most EU countries (8.8% in Italy and 7.6% in Greece).

Further analysis of the ITTP markets in the four countries shows that despite some differences, they also share many common characteristics given their geographical position at the external EU borders.

Table 2. Estimates of the revenues of the ITTP market (EU 28, 2013)

Country	Min (mln EUR)	Max (mln EUR)	Estimate (average)	GDP (mln EUR)	ITTP revenues as share of GDP
Bulgaria	173	216	195	42,011	0.46%
Greece	416	494	455	180,654	0.25%
Italy	485	607	546	1,604,599	0.03%
Romania	207	296	251	143,801	0.17%

Source: Transcrime.

Bulgaria

In Bulgaria, the structure of the ITTP market and the types of actors have remained relatively stable, since the beginning of the twenty-first century throughout the end of 2014. During this period ITTP was the fourth most important source of revenues for organised crime with 200-250 million EUR annually.⁴⁶ In comparison, for the period 2010 – 2012, the biggest criminal market is trafficking in human beings with 650 million EUR, followed by organised VAT fraud, with 350 million EUR and fuel fraud with 200 million EUR. At that time, ITTP was bigger source of revenue for organised crime than the combined proceeds from the four major drug markets (cannabis, cocaine, heroin and amphetamines). The situation changed in the period 2015 – 2017, when the Bulgarian authorities managed to drastically curb this criminal market and reduce the share of traded illicit cigarettes from almost 20% down to 6-7%.⁴⁷

⁴⁶ CSD. (2012). Serious and Organised Crime Threat Assessment 2010 – 2011. Sofia: Center for the Study of Democracy.

⁴⁷ CSD. (2018). Policy Brief No. 75. The Tobacco Market in Bulgaria: Trends and Risks, Sofia: Center for the Study of Democracy.

Illegal tobacco products import and distribution models (2009 - 2014) Model 1 Model 2 Model 3 00000000 იმეგენებები 00000000 Retail Legal cigarette Level 5 manufacturer Central Europe Illegal cigarette Level 4 manufacturer in Bulgaria Suppliers Distribution Level 3 = Central and Wholesale Western Europe Level 2 Legal Bulgarian cigarette manufacturer 'Ants black market' Importers Level 0 Level 1 Import into Bulgaria Bulgarian border Italy Illicit white supply China Dubai Cyprian nephew

Source: CSD.

CSD estimates indicate there were about 8,000 to 15,000 participants in the criminal networks active on the ITTP market in the period 2009 - 2015.48 A suitable representation of the way this market functions in Bulgaria would be a system of cascading reservoirs. The imported or manufactured cigarettes from the top reservoir overflow into tanks at lower levels which, in their turn, supply the ones below them. This system is not a formal hierarchy, as criminal entrepreneurs at the highest level work within the top reservoir, importing or manufacturing cigarettes and selling hundreds of containers annually to the lower levels, but not interfering in any way with the organisation and the interaction of the criminal structures below them.

The top level of criminal entrepreneurs, most commonly called "cigarette guys", provides the bulk of illicit tobacco products – several hundred containers annually – through three different sources:

- Import of illicit whites from non-EU countries to Bulgaria and other member states.49
- Local production through legal cigarette manufacturers with significant market share in the legal cigarette markets of Bulgaria and Greece. In this case, the manufacturer declares that the cigarettes are intended for export in non-EU countries and part of the production may actually be exported only to be returned to the country through organised criminal networks.
- Manufacture in small illegal production facilities (imitations of well-known brands or illicit whites) in Bulgaria or another neighbouring country organised by experienced players in the tobacco industry.⁵⁰

The second or middle level comprises regional criminal entrepreneurs who buy wholesale from the big cigarette guys. These players, often referred to as "heads", provide the link between the top level and the distribution networks. They operate in a market-driven mode, buying from the supplier that offers the lowest price and selling in a targeted area in competition with fellow local criminal entrepreneurs.

These criminal enterprises are responsible for the supply of tobacco products throughout the country and bear most of the risks in the process.⁵¹ Bribes are means to avoid prosecution or effective sentencing, if a member of the distribution network is arrested.

The third or low illegal tobacco market level deals with logistics and supply to retailers and, in some cases, its actors operate as retailers as well. Their purchases from distributors (second level) are market driven. This level might be further stratified as per the regional market size into 3 to 5 levels, such as warehouse keepers, merchandisers, couriers, etc. (see Figure 5, previous page).

⁴⁸ CSD. (2015). Financing of Organised Crime. Sofia: Center for the Study of Democracy.

⁴⁹ Ibid.

⁵¹ A ship container holds 1,000 master cases on average, which is 500,000 boxes of 10 million cigarettes.

To escape involvement with higher level player's small-scale importers in some border regions in South and West Bulgaria form "ant smuggling" partnerships made up of socially disadvantaged locals and foreigners. Criminal subordination in this system is much more clear-cut than with regional dealers. Ant smugglers cross the border several times a day transferring small amounts of cigarettes at each crossing, which are stored in designated depots and distributed wholesale on the domestic market.

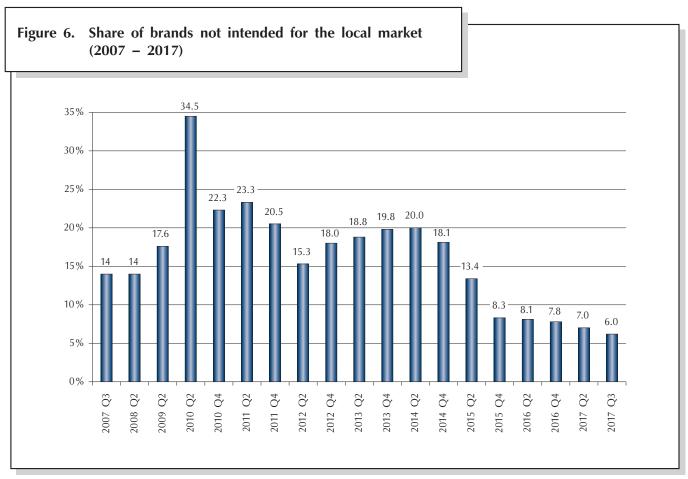
A fairly marginal level of the criminal market is the distribution of fine-cut (hand rolling) tobacco. The consumers of the fine-cut tobacco are people with the lowest income, although they contribute to between 20% and 25% of the consumption of illicit tobacco products. Tobacco is illegally bought from Bulgarian producers and cigarettes are hand-rolled by the lowest level retailers or the end buyers. Distribution is run at the middle or low level in close relation to organised crime networks.

A change in government enforcement policy in 2014 triggered an evolution in the ITTP. The government placed all Bulgarian tobacco products manufacturing facilities under on-site physical control and over the next six months there were customs and MoI officers at and around their premises, with illegal distribution of tobacco products plummeting and tax revenues rising ostensibly. These measures brought about changes in the relative presence of illicit tobacco products from three main sources: domestic illicit whites⁵² from legitimate factories, illicit whites from Greece/Turkey and from illegal manufacturing facilities, whereas supplies from all three declined.

Domestic illicit whites' supplies that dominated the market until 2015 greatly decreased due to on-site control. In mid-2015, customs and police officers were withdrawn from production facilities but, according to available data, supplies to criminal distribution networks remained low since suppliers recoiled at the threat of renewal of law enforcement's rigorous presence. CSD estimations reveal that in late 2016 domestic illicit whites accounted for 15-16% of illegal sales in the country, a drastic shrink from 2-2.2 billion cigarettes sold in 2014 to 180-190 million two years later.

Smuggled illicit whites, on the other hand, re-emerged as the dominant source. Expectations that their imports from Greece, Turkey and other neighbouring countries will grow further as a result of another excise duty increase to fill the newly formed niche, however, were not fulfilled. Annual sales reached 500-600 million pieces, which was one third of their 2011 – 2012 level. The uneven distribution of Illicit whites in various parts of the country and the multitude of brands and packs were a sign that supply was problematic, which was corroborated by MoI and customs data on illegal cigarette seizures and empty pack surveys in 2017. Clearly, it was not possible to establish big and stable smuggling channels. However, in the end of 2016 a third source – illegal factories – started to play important role in the market of illicit cigarettes.

⁵² Cigarettes which are manufactured legally by a domestic producer for export or duty-free sale. They are usually of unknown brands not registered as trademarks in the country and instead of being exported end up as illegally sold on the domestic market.



Source: Empty Pack Surveys, Bulgaria.

In addition, Bulgarian law enforcement agencies - despite their limited resources have started actively cooperating with their European counterparts, as they have become aware that a criminal entrepreneur, albeit operating abroad, would continue to pose a risk on the internal market. As a result, several illegal factories have been uncovered in Spain, Greece and Central Europe. The rapid expansion of migrant and refugee smuggling since 2014, has had a significant impact on the criminal landscape as well. Since one of the important smuggling routes for migrants from Turkey to Western Europe is the one through the Balkans, similarly to their Greek and Romanian counterparts, a sizeable portion of criminal entrepreneurs in Bulgaria have switched from illegal cigarette trade to people smuggling, considering the latter more profitable and less risky. 2015 was a year of transformation driven by the policy of strictly curbing the criminal market of tobacco products. The measures against domestic illicit whites targeted influential economic actors in Bulgaria. This change may well be rooted in awareness of the two major risks stemming from the illegal tobacco market expansion. The first one is economic, ensuing from the fact that in Bulgaria excise and VAT on tobacco products account for a significant share of the state budget, providing between 9% and 11% of all tax revenues. By comparison, in Western Europe, this figure is about 1-2 % (France - 1.1%, Austria and Belgium - 1.2%, Germany - 1.3%, England - 1.4%, Spain - 2%).

Greece

Data from Greece shows that the country is not only an important transit point, but also an increasingly important destination market.⁵³ During the period 2009 – 2016, a substantive increase of the illicit cigarette market (from 3% to 19%) was observed, combined with a net increase of consumption of smuggled cigarettes.⁵⁴

The increase of organised crime in Greece was first recorded in the 1990s. Human and drug trafficking, extortion racketeering and more recently different forms of smuggling and money laundering are some of the main financial sources for criminal enterprises which expanded in Greece over the last 20 years. According to the findings of national and international studies,⁵⁵ there has been a significant increase in the smuggling of tobacco products in Greece over the last decade, when it became a profitable and low risk enterprise for organised crime in Greece.

Hellenic Police⁵⁶ also reports that key factors for the expansion of ITTP in Greece are the effects of the economic crisis, the high taxation and the social tolerance toward this type of crime. The police have observed these factors to have contributed to significant changes in the modus operandi and to the structure of the criminal organisations, especially in the sector of illicit tobacco products. According to police reports criminal organisations in Greece are characterised by strong links to transnational criminal organisations, the tendency to be engaged with a variety of crimes and criminal enterprises, the increasing use of the internet in order to facilitate the criminal activity and the increasing involvement in serious economic crimes.⁵⁷

The profits for criminal organisations from this type of activities are significant. Estimations of revenues of the ITTP market in Greece for 2013 indicate that the overall proceeds from this criminal market are more than the overall annual profits from trafficking in heroin, ecstasy, cannabis and cocaine combined. In 2011, the total amount of lost revenues to the state budget was estimated at over 125 million EUR, while from 2008 to 2014 the budget suffered damages of 2.5 billion EUR, due to smuggling of tobacco products.⁵⁸

ITTP is an important and lucrative activity for criminal groups.⁵⁹ According to law enforcement agencies in Greece, a pack of cigarettes which is legally sold at around four euros, costs between two and four times less on the illegal market.

⁵⁶ Hellenic Police. (2016). *Annual Report on Organised crime,* Athens.

⁵³ Jeffray, C. (2017). *Organised Crime and Illicit Trade in Greece: Country Report*. On Tap Europe Series No. 3, RUSI.

⁵⁴ Center for Planning and Economic Research (ΚΕΠΕ in Greek). Newsletter.

⁵⁵ See Jeffray, C. op.cit.

⁵⁷ Hellenic Police, Annual Reports on Organised crime, Athens. 2012 – 2016. See also Europol. (2013). Serious and Organised Crime Threat Assessment (SOCTA), p. 11.

⁵⁸ KPMG. (2015). *Project Sun: A study of the illicit cigarette market in the European Union, Norway and Switzerland, 2014 Results;* Hellenic Police. (2012). *Annual report on Organised Crime,* Athens.

⁵⁹ Hellenic Police. (2017). Annual Report for Organised and Serious Crime for 2016.

Generally, the production cost of one container of cigarettes (500,000 packs) is around 150,000 – 200,000 EUR. The wholesale price is about 250,000 EUR, including transportation by sea to Greece. If smugglers sell at two euros per pack on the street, their profit from a single container will amount to 750,000 EUR.

The general overview of the ITTP market can be mapped by the data of seizures of tobacco products, which are published by the custom authorities. The reliability of that data is conditioned by the performance of the custom authorities, so it is only indicative of the general trends in the illegal market.

The data published in the newsletter of the Independent Authority of Public Revenues shows that for 2017, the total amount of ITTP seizures and the lost taxes on 107 million sticks are equal to 22.6 million EUR. The majority of illicit products entered the country via the Piraeus and Thessaloniki ports, 60 which are the biggest ports in Greece. The most common type of tobacco products smuggled is cigarettes.

Indeed, the position of Greece as transit and destination country for the ITTP is well documented by both the Hellenic Police and the Custom Authority. Greece is mainly a transit country for the shipments from Asia and Africa which are directed to Central, Northern and Western Europe. The vast majority of illegal tobacco products (70-80%) is directed to North and West European countries, mainly to Germany and the UK, and is smuggled through Italy. The remaining 25% is domestically traded for internal consumption. Greece is a destination country for consignments of ITTP from Ukraine, Belarus, Montenegro, North Macedonia, Moldova, Bulgaria, Cyprus and Turkey. Especially with regard to Bulgaria it is very common that small quantities of cigarettes are transported by trucks and traded in villages in Northern Greece.

The bulk of the illicit tobacco products is smuggled via maritime routes. Most common countries of origin are China, the United Arab Emirates, Egypt and Libya. The vessels carrying illicit tobacco products are making frequent intermediate stops in Lebanon, Malta, the Montenegrin port of Bar and Famagusta in Northern Cyprus. According to police reports, China is one of the main producers and country of origin for illicit products. The vast majority of such products that enter through the main ports of Greece are illicit whites produced in China or in the free trade zones of the UAE. They are usually declared for transit and enter Greek ports only to be unloaded to new containers and continue their route to other EU countries.

According to reports of the Hellenic Police, tobacco products constituted the majority of all products illegally trafficked in 2016. In particular, enforcement authorities dealt with 1,532 cases of smuggling in cigarettes and 878 cases of smuggling in fine-cut (roll-your-own) tobacco, which resulted in a total of 546,389,730 pieces of cigarettes and 5,840,680 grams of fine-cut tobacco being

⁶⁰ IAPR, Annual Report (in Greek AADE).

⁶¹ Hellenic Police. (2017). Annual Report on Organised crime, Athens.

seized. The largest volume of cigarette seizures (92% of the total) concerned seizures of up to 50,000 pieces. However, the authorities report that during the last two years there has been a decrease in the number of cases related to cigarette smuggling (respectively – quantities) and an increase in cases related to fine-cut tobacco smuggling. The data provided by law enforcement stipulates that most cases involved small scale contraband.

Generally, Greek authorities perceive ITTP as an "import" issue.⁶² Therefore, they develop control policies which target the import and export, whereas the domestic part of the supply chain remains largely neglected.

Italy

Similarly to Greece, Italy represents both a transit and destination country for ITTP. In 2015, the main countries of origin of seized contraband cigarettes are respectively the United Arab Emirates (28.1% of the total of seized cigarettes), Greece (14.9%), Turkey (12.4%), Egypt (11.8%), Malaysia (11.2%), and Vietnam (11.0%). In 2016, the share of the contraband cigarettes from Greece increased to 23.7%, followed by Montenegro (22.6%), Malaysia (20.6%) and Tunisia (17.5%). In 2016, the United Arab Emirates are not included in the top ten countries of origin of contraband cigarettes.⁶³ Data from EPS and Mystery Shopper⁶⁴ also underline a key role of Eastern European countries such as Ukraine and Belarus whose inflows to Italy have changed between 2015 and 2016, explaining also the overall decrease in the presence of counterfeited and contraband products in the illicit national market (-4%).

In the period 2015 – 2016, one out of three cigarettes in the illicit Italian market came from Ukraine, which can be assumed from the health warning on the packs. The share of cigarettes coming out illegally from duty-free channels (around 29.0%)⁶⁵ and the role of Belarus as a country of origin is also of significance. Considering that the mean price of a pack of legal cigarettes in Italy is 4.66 EUR compared to 0.58 EUR in Ukraine and 0.68 EUR in Belarus, price difference can easily explain these inflows. On the other hand, due to the small price difference between Italy and Greece (0.95 EUR), Italy is used by smugglers more as a transit country.

The majority of contraband cigarettes reach Italy by sea, although a land route via the region of Friuli-Venezia Giulia is also used by smugglers. The usual method is to conceal cigarettes together with licit merchandise in container shipments or trucks exploiting land, port and airport customs entrance, accompanied with fake customs documentation that certifies the transportation of products with low commercial value or reduced tax rate. In 2015, the sea routes involved

⁶² Vidali, S. (2017). *Beyond the Limits. Crime Policy Today*. Athens, Nomiki Bibliothiki.

⁶³ Direzione Nazionale Antimafia e Antiterrorismo, Relazione annuale. 1 July 2015 – 30 June 2016; data provided by the Customs and Monopolies Agency during the interview.

⁶⁴ Direzione Nazionale Antimafia e Antiterrorismo, Relazione annuale. Periodo 1 luglio 2014 – 30 giugno 2015; A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

⁶⁵ A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

in ITTP are the United Arab Emirates - Gioia Tauro (region of Calabria) and Egypt - Salerno (region of Campania), while in 2016 the seizures of most relevant quantities are carried out by the customs agencies on the Adriatic route (between the cities of Bari in the region of Apulia and Ancona in the region of Marche) originating from Greece, Montenegro and in one occasion from Malaysia; and on the Tyrrhenian side originating from Tunisia. When illicit tobacco products originate from North Africa, the routes of transportation overlap with those used for human trafficking and the Strait of Sicily plays a key role as an entry point to Italy. Depending on the contraband cigarettes' country of origin, entry points in Italy vary: if cigarettes arrive from Libya and Tunisia, loads reach the Sicilian coasts, if they originate from Algeria, the used ports are situated on the French Riviera and the region of Liguria (city of Genova), and if they are transported from Egypt they pass through Greece and reach the region of Apulia in the south of Italy, for example the port of Bari and other Adriatic ports. Seizures of contraband cigarettes are registered also in the ports of Naples and Gioia Tauro (in South Italy) and along the main highway routes.66

Although the outflows of illicit tobacco products from Italy to neighbouring countries decreased during the 2015 – 2016 period (-7%), France remains the main destination for cigarettes passing through the national territory (Table 3). The decrease (-30%) registered between 2014 and 2015, in particular, has been probably influenced "by price stability in France in 2015".⁶⁷

Table 3. Total outflows by country of destination, 2012 – 2016 (billion cigarettes)

	2012	2013	2014	2015	2016
France	0.31	0.39	0.47	0.33	0.40
Switzerland			0.12	0.18	0.11
Germany	0.10	0.10	0.08	0.10	0.10
Netherlands	0.17	0.13	0.13	0.13	0.07
UK	0.16	0.03	0.04	0.05	0.05
Other	0.18	0.13	0.24	0.19	0.18
Total	0.93	0.78	1.08	0.98	0.91

Source: Intellegit elaboration on KPMG (2017).

66 L. Zorloni, "La mappa delle sigarette di contrabbando in Italia", Wired, May 2017; KPMG, Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results; A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

⁶⁷ KPMG. (2016). *Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2015 Results.*

If we take into account the seizures of illicit tobacco products at the provincial level, in the majority of cases (27 provinces out of 52) loads of illicit cigarettes were in transit to further destinations, especially in the provinces of Bolzano, Como, Imperia, Genoa, and Verbano Cusio Ossola. In the province of Treviso the seized cigarettes were directed out of the province but with a mixed destination both national and foreign. In all the other provinces seized cigarettes were intended for the national market.⁶⁸

At provincial and local level within the national territory, the incidence of illicit tobacco products varies significantly. In the period 2015 – 2017, the role of the provinces of Naples and Caserta is paramount and shows the highest incidence rate, along with other provinces such as Reggio Calabria, Bari, Genoa, Ancona and Venice which represent key areas for the transit of illicit cigarettes, in some cases due to the presence of key ports used for import (Gioia Tauro in the region of Calabria and Genoa in the region of Liguria).

As for the national distribution of illicit cigarettes, data from EPS on the incidence of illicit packs reveal highest rates in the southern part of the country, and in particular in Naples (28%), followed by Palermo (12%), Giugliano (municipality in the province of Naples) and Salerno (more than 6%). A similar incidence is registered when accounting only for illicit whites: one pack of cigarettes out of five is found in the city of Naples. In the northern areas of the country illicit packs are also found, although in lower percentage, in the cities of Trieste (4.4%), Milan (2.1%) and Turin (2.1%).⁶⁹

Illicit white brands represent a large share of the illicit cigarette market in Italy, accounting for 49.9% in 2015 and 63.4% in 2016 of total counterfeit and contraband volume.⁷⁰ This trend, which started ten years ago, is in line with the wider tendency in Europe, and in Italy it is progressively replacing the consumption of counterfeit cigarettes.

As for the quantities of illicit tobacco products seized, data of the Customs and Monopolies Agency point out at an increase between 2014 and 2015 (+31.9%) followed by a big contraction in 2016 (-48.6%) of contraband packs of cigarettes, in line with the data from the Guardia di Finanza (274,434 kg of illicit tobacco in 2015 and 243,249 kg in 2016). The high increase in seizures of contraband cigars and hand rolling tobacco underlines the role of the economic crisis that has pushed many consumers to turn to the illicit market.

Similarly to the other three countries, in Italy, consuming illicit tobacco products is socially acceptable, and consumers do not feel they commit a crime when

⁶⁸ A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

⁶⁹ KPMG. (2017). *Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results.*; A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

⁷⁰ KPMG. (2016). Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2015 Results; KPMG. (2017). Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results; A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo.

buying contraband cigarettes; on the contrary, they appreciate the opportunity to save money. At the same time, most people are aware that ITTP represents a source of profits for organised crime groups, and feel a sense of "guilt" to buy illicit cigarettes.⁷¹ The higher level of social acceptance and availability of illicit tobacco products, especially in the cities of Naples and Palermo, is related to the presence of different open air stalls in streets or markets used for sale which are tolerated by the general population, without the need for suppliers to hide the products. In Naples, illicit cigarettes are sold openly from private apartments as well, with children and elderly seen selling counterfeited and contraband tobacco from ground floor windows. In stores, illicit cigarettes are sold openly, always in quantities of less than 10 kg, to keep this activity firmly in the category of administrative violation.⁷² The widespread sale of illicit cigarettes in the city of Bari, although in covert places such as private apartments and clubs underlines a similar social tolerance of the local population to contraband products.

From Mystery Shopper data, cigarettes brands that can be mainly found in the city of Naples and Bari are MARLBORO and REGINA, while in the city of Palermo the cigarette's brands are PINE, ORIS, and AMERICAN LEGEND. A common element of these cities and their suburban areas is the presence of native organised crime groups and Italian suppliers compared to the areas and cities in the north, e.g. Milan, where suppliers are foreign nationals. The few studies conducted so far suggest a correlation between mafia presence and the trade in illicit cigarettes within provincial and local territories.⁷³

Romania

Romania is one of the EU countries most affected by ITTP, second to Poland. In 2016, Romania registered the highest rate of ITTP in the last five years, amounting to almost 4.41 billion illicit cigarettes. This represents 10% of the 48 billion illicit cigarettes smoked in the EU. A more recent estimation from 2017 shows that the level of illicit market was at 18.3%, which is double in size compared to the EU-28 average of 9%.⁷⁴ As a consequence, the Romanian state budget is annually deprived of 650 million EUR. Throughout the period between 2010 and 2016, the incurred losses are estimated at around 4.8 billion EUR.

With regard to seizures, only in 2017, Romanian authorities have captured almost 150 million illicit cigarettes worth 80 million RON, representing only 3% of the illicit market. Almost 60% of the illegal cigarettes in Romania are illicit whites, 19% having Moldavian origin and 17% Ukrainian origin.

A. Di Nicola and F. Terenghi, "Managing finances in the illicit tobacco trade in Italy", Trends in Organized Crime, 19 (2016): 254-272; F. Calderoni et al., Italy. The Factbook on the Illicit Trade in Tobacco Products 2.

⁷² KPMG. (2017). Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results.

A. Di Nicola and G. Espa, L'Italia del contrabbando di sigarette. Le rotte, i punti di transito e i luoghi di consumo; A. Di Nicola and F. Terenghi, "Managing finances in the illicit tobacco trade in Italy"; F. Calderoni et al., Italy. The Factbook on the Illicit Trade in Tobacco Products 2.

Novel Research, Comerțul ilicit cu țigarete August 2008 – Mai 2016, https://www.novelresearch.ro/comertul_ilicit/; KPMG, Project Sun reports.

In 2016, DIICOT had a total of 588 cases involving crimes against the customs regime, with 303 cases registered during the year. Out these, DIICOT finalised 164 cases, but only 17 of them with indictments.⁷⁵ In the last 7 years, customs crimes have been decreasing, both in terms of number of cases and number of perpetrators. This observation is also consistent with the sociological data on the illicit consumption. The data from the National Police also reveal a decrease at the illicit market between 2011 and 2013 and a rise of smuggling in the beginning of 2014.

The region most affected by cigarettes smuggling is the North-East, which borders Ukraine and Moldova. In 2017, the region had a level of smuggling of 37%, although it is 9.3% lower compared to November 2016. The smuggling route through Ukraine and Moldova is the most active one. Romania has 2,000 km of borders with three non-EU countries, namely Ukraine, Moldova and Serbia. This large border area offers abundance of opportunities to smugglers as surveillance procedures are difficult to implement because of the rocky landscape (especially at the Ukrainian border) as well as the capacity of perpetrators to constantly develop new smuggling techniques. For example, at the border with Moldova smuggling techniques involve scuba divers and fishermen.

In 2014, the average incidence of illicit trafficking in tobacco products was 15.9%, while the North-East and South-West regions had the highest smuggling rate, namely 28.4% and 26%. In 2015, the registered illicit cigarette market share was 16%, which is 75% higher than the EU-28 mean value of 10%. The majority of packs had Ukrainian (17%), Moldovan (13.9%) and Serbian (2.8%) excise stamps.

An important illicit tobacco hotspot is the Port of Constanta where most illicit cigarettes enter the country. In March 2017, the customs authorities at the port discovered 1,400 boxes with 14 million Asian cigarettes loaded on ship under a Thai flag. According to authorities, the cargo's estimated value was about 2.5 million EUR, with a final destination Bucharest. This was the biggest cargo of smuggled cigarettes seized in the last 5 years. Legal imports of cigarettes that transit Constanta harbour and Romania are also a concern as some of the trucks do not reach the destination countries and are unloaded in Romania.

Another recent hotspot is the border with Bulgaria, where a new bridge at Calafat-Vidin was opened in 2013. The south of Romania is supplied with illegal cigarettes by Turkish trucks that transit Bulgaria on their way from Greece and Turkey.

Between 2008 and 2010, the Romanian illicit cigarettes market peaked from 13% up to 36%. This phenomenon has been exacerbated by the large price differences between cigarettes from Romania and those from Ukraine and Moldova. In addition to that, some stakeholders complain about the laxity of security measures at the borders. For instance, Romanian authorities bought 15 high-tech scanners but the funds allocated to maintenance and insurance are scarce, resulting in non-regular use of the scanners.

⁷⁵ DIICOT annual report 2016, p. 19.

Novel Research, Comerţul ilicit cu ţigarete August 2008 – Mai 2016, https://www.novelresearch.ro/comertul_ilicit/

A recent change of the legislation in Moldova introduced in 2015 also contributed to the increase in the levels of smuggling. A new *Customs Code* was adopted, which legalised duty-free shops in the Transnistria separatist region. In 2016, 23 duty-free shops were functional in Moldova, nine of which in Transnistria. As the region is not a tourist destination, the duty-free shops are apparently used for smuggling, an observation supported by the fact that only three of these duty-free shops imported over 4 billion cigarettes in a single year.

Another concern is the bootlegging perpetrated by ordinary citizens who transport small amounts of illicit cigarettes on a regular basis in order to evade prosecution. People living in border regions have been known to provide smugglers with shelter and storage space for illegal cigarettes. In 2013, according to the border police, at a single customs checkpoint with Serbia were registered 1,300 individuals who crossed the border (sometimes two or three times a day) to bring into Romania goods such as cigarettes and alcohol.⁷⁷ In the beginning of 2013, the regulation in Romania changed and weekly limits per person replaced the limits per crossing. Thus, instead of two packs of cigarettes per crossing per person, the new rule allows only for two pack per person per week.⁷⁸ Apparently, representatives of the local authorities are also involved in smuggling. For instance, a mayor was sentenced in 2017 for smuggling, being part of a group along with other 36 individuals.

Corruption of custom personnel is also a key enabling factor. During the period between 2011 and 2014, the National Anti-Corruption Directorate prosecuted 276 customs officers. In late 2016, DIICOT arrested 18 customs officers, serving at the border with Serbia, for facilitating illegal trade. This was the third serious case at this location, with groups of 69 and 41 officers being previously prosecuted. Practically, each year, entire customs structures are being sacked, with newcomers becoming involved in the same criminal practices.

Custom authorities acknowledge that the criminal leaders are usually hard to sentence because they are not involved directly in the smuggling operations and only lower level members are caught red-handed. The criminal groups can afford to offer large bribes or contribute to electoral campaigns in exchange for protection and hints. The perception of these crimes also serves as an enabling factor because often the perpetrators are not considered as public threat and get suspended sentences or civil penalties, therefore many of them easily get back in business. Even if convicted, the average penalty is three years of prison time.

Romanian authorities report that the northern and eastern border areas are the most vulnerable and seem motivated to fight smuggling and cooperate with each other. They claim, however, that once the illicit cigarette loads manage to evade border control, they become very difficult to intercept as perpetrators operate in well-connected and covert networks. Warehouses and delivery routes are changed

Jurnalul. Ro, "Restricții la granița non-UE. Românii pot aduce doar o dată pe săptămână țigările, băuturi alcoolice și alimentele din Serbia, Ucraina și Moldova".

National Agency for Fiscal Administration's Order no. 3477/2013 on the definition of the occasional character of passing into Romania of goods contained in the personal luggage of travellers coming from a third country. The order was repealed and replaced by Order no. 1888/2016 having similar provisions.

often, so cigarettes could arrive to expendable low-level sellers who are costly to be investigated and sentenced by the authorities. There are even cases of legitimate courier services being used for the transport of illicit products within the country.

According to a recent survey, illicit cigarettes are most often distributed by street vendors (83% of the respondents who have been offered black market cigarettes), in ordinary shops (9%), and in bars and restaurants (4%).⁷⁹ According to several case studies, illicit cigarettes were sold using a store owned by the perpetrators. Separate accounting was used, the illicit sales being recorded on plain notebooks. In some regions controlled by organised crime groups, local shop owners are imposed a quota of illicit cigarettes that has to be sold weekly in order to be allowed to operate.

1.5. TRENDS IN THE ILLICIT CIGARETTE MARKET BY BRANDS

The brands of illicit cigarettes have long been the focus of attention of police and revenue administrations. With the increased access and opportunities for laboratory research in the recent years, a cigarette pack became somewhat of a "fingerprint" and therefore provides a whole new level of opportunities for investigation. The reason being that modern tobacco products require a complex manufacturing process which is in many ways highly specialised, thus giving an opportunity to identify the manufacturing plant as well as the machines that produced each cigarette pack, as well as the origin of the raw materials and consumables. In Bulgaria, for example, using seized cigarette packs as a reference point for the participation of different criminal structures in the market started in the mid-1990s and has become a systematic approach in the past few years.

The close examination of the available EPS data for Bulgaria, Greece and Italy, as well as the Novel Research data for Romania, shows quite different market dynamics in the four countries as regards illicit brands. In Greece and Romania, the top 10 non-domestic brands⁸⁰ for the period 2012 – 2017 remained more or less constant, while changing only their market share. Conversely, the illegal markets in Bulgaria and Italy in the same period were much more versatile and only a few brands – one in Bulgaria and three in Italy – preserved their presence in the top 10 non-domestic brands. The constant presence of specific non-domestic brands in the four countries may reflect consumer's preferences, but also well-established smuggling routes or criminal networks exploiting them. Moreover, some non-domestic brands reach the four countries in a completely legal way due to cross-border trade and tourism.

The top non-domestic brands in the four countries differ, although there are some exceptions that suggest possible links between the criminal networks active in the ITTP markets in the four countries. The first notable exception is KARELIA, which

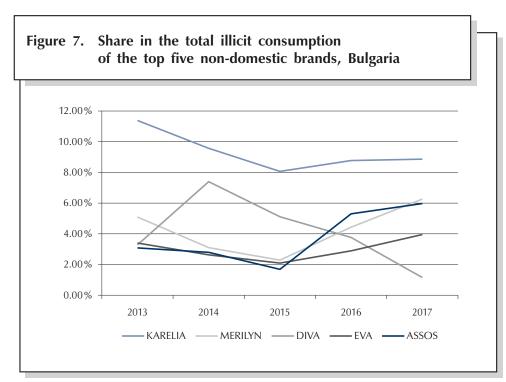
⁷⁹ European Commission. (July 2016). Special Eurobarometer 443 – Illicit tobacco trade, Romania fact sheet.

⁸⁰ Cigarette brands not intended for the local market, including both legally and illegally imported cigarette products, as well as counterfeit cigarettes that are illegally manufactured in the country.

is in the top 10 non-domestic brands both in Bulgaria and Greece. Similarly, MARLBORO is among the first ten non-domestic brands both in Greece and Italy, whereas WINSTON has large share in the illicit markets both in Italy and Romania. Some other less prevalent brands also have presence in more than one of those countries such as OME, PRESIDENT and ASSOS (Bulgaria and Greece), BUSINESS ROYAL and ROYAL (Bulgaria, Italy and Greece), MARBLE (Bulgaria, Romania and Italy).

Bulgaria

EPS data for the period 2012 – 2017 lists 243 cigarette brands traded on the illegal market. Throughout the five-year period the only brand that had always been in the top ten non-domestic brands was KARELIA, which is a brand of the Greek Karelia Tobacco Company Inc. Other popular trademarks that were often in the top ten non-domestic during 2013 – 2017 period are EVA, MERYLIN, DIVA and ASSOS (Figure 7). EVA is a brand of the Bulgarian producer Bulgartabac, whereas DIVA and MERYLIN brands are owned by the second largest Bulgarian manufacturer – Kings Tobacco.⁸¹ ASSOS is a brand of Philip Morris International.



Source: EPS data.

The trend analysis of EPS data shows that in the first half of 2012 the share of illicit cigarettes reached 15.3%. There was a rise between the second half of 2012 and the second half of 2014, when cigarettes not intended for the Bulgarian market reach a level of 20%.⁸² The upward trend came to an end in

⁸¹ KPMG. (2014). Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland.

⁸² EPS data for Bulgaria, November 2014.

2015, when the Bulgarian authorities tightened the measures against ITTP. In the subsequent years, the level of non-domestic consumption effectively dropped to 4% in 2018.⁸³

The illicit cigarette brands registered by EPS in Bulgaria can largely be classified in four main groups. **The first group** is that of illicit whites which contributed most to the extreme rise of illicit cigarettes in Bulgaria prior to 2012. Illicit whites enter Bulgaria illegally mainly through Greece and to a lesser extent – Turkey. They are legally manufactured in Middle Eastern countries (mainly Dubai) and former Soviet Republics. The most popular among these is RAQUEL. **The second group** of cigarettes not intended for the Bulgarian market are legally distributed brands in neighbouring countries of Bulgaria (e.g. TROKADERO) like North Macedonia and Serbia. A share of these cigarettes is legally imported, whereas another part is smuggled in small quantities by the population living on both sides of the borders. Some Bulgarian brands such as EVA are legally traded in neighbouring countries and are also smuggled back into the country in a similar way.

The third group of cigarettes not intended for the Bulgarian market is related to duty-free trade. Available EPS data show that the main source of cigarettes in this group are duty-free shops along the border with Turkey,⁸⁴ due to the fact that as of 2012 the other neighbouring countries have no duty-free shops along the borders. However, according to expert assessments of police and customs officers specialised in countering illicit tobacco trade, some of the most widely distributed illegal brands in the country with a duty-free label have a different origin⁸⁵ and have nothing to do with duty-free trade. The first large problematic source of duty-free labelled cigarettes is related to the Greek brand KARELIA. Balkan criminal structures⁸⁶ manage to obtain large quantities of this cigarette brand directly from the manufacturer. Respectively, a large share of these cigarettes is imported in Bulgaria without passing through the Turkish duty-free shops. The second largest source of duty-free labelled cigarettes is illegal manufacturing plants in Bulgaria and Greece, counterfeiting different global and Bulgarian cigarette brands.

The fourth group of illicit cigarettes is related to a legal Bulgarian manufacturer who in 2011 started distributing certain cigarette brands illegally.⁸⁷ Data shows a large amount of cigarette brands that are not officially sold on the Bulgarian market but are legally registered by companies with indirect links to the manufacturer. The strategy used is similar to the model of illicit whites. A large number of unknown brands manufactured legally for foreign countries are later on illegally distributed in Bulgaria. Although, cigarette packs bear duty-free labels, in practice, this is a new group of illicit cigarettes which can largely be classified as domestic illicit whites. This new group of domestic illicit whites, along with the illegal cigarettes of

⁸³ EPS data for Bulgaria, 2018.

⁸⁴ According to EPS data there are also packs originating from Moldova and some other former Soviet Republics.

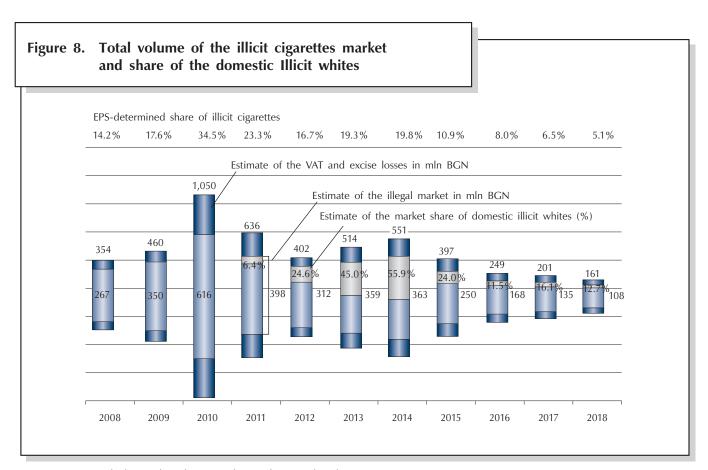
⁸⁵ Information acquired through structured in-depth interviews.

⁸⁶ Aside from Bulgarian, there are also Greek, Romanian, Serbian and other criminal structures from the Western Balkans involved.

⁸⁷ EPS registered 0.9% in 2010 as well.

the KARELIA brand, are the main sources maintaining the illicit cigarettes market at a level of 20% in 2013 and 2014 (Figure 8).

In 2013, the total share of brands from the domestic illicit whites group along with KARELIA reaches up to 56-57% of the illicit cigarettes market in Bulgaria. The most often consumed illicit cigarette brand for the year is KARELIA with 11.4%. The Bulgarian legal manufacturer covers 45% of the illicit cigarettes market and its domestic illicit white brands MY WAY, CORSAIR, MERILYN and PALLADIUM are respectively second, third, fourth and fifth among the most often sold illicit cigarette brands. The upward trend of cigarettes from the domestic illicit whites continued in 2014 and the Bulgarian manufacturer's brands reached 53-54% and in the second – 60.5%. According to EPS data, along with the KARELIA brand cigarettes, they are respectively 64.6% and 74.3% of the illicit cigarettes market. However, for the first time a brand of a Bulgarian manufacturer, DON, is the leading brand on the illicit market.



Source: CSD calculations based on EPS data and excise data from Customs Agency.

In 2015, the Bulgarian authorities introduced tight measures against domestic illicit whites, and as a result the illicit cigarettes market shrunk significantly. During the first half of the year the level of the illicit cigarettes' consumption dropped to 13.4% and during the second half to 8.3%88 of the total cigarettes' consumption

⁸⁸ According to the data from the two waves of EPS carried out in 2015 in Bulgaria.

in the country. In terms of brands, the market share of domestic illicit whites dropped to 24% and the phenomenon of a Bulgarian legal manufacturer dominating the illicit market came to an end. In 2016, the share of domestic illicit whites decreased to 11.5% of the total consumption but at an illicit cigarettes market almost three times smaller. The development between 2015 and 2018 shows that the percentage of domestic illicit whites and the KARELIA brand remained relatively unchanged at 20-25% of the illicit market (Figure 8). The share of these cigarettes dropped sharply because the overall illicit market plummeted from 8% to 4%.89

During the same period the group of illicit cigarettes with a duty-free label achieved a significant increase in their illicit market share and their origin was linked to the emergence of a new source of illicit cigarettes in the end of 2016 – illegal factories in Bulgaria and Greece. Another group of illicit duty-frees, beginning to appear in significant quantities in 2017, are MURATTI, BUSINESS ROYALS, ROYAL, ROYALE, GOLDEN and COMPLIMENT. At present, the source of these brands of illicit cigarettes is not yet known and according to some expert opinions they are also produced in illegal factories.

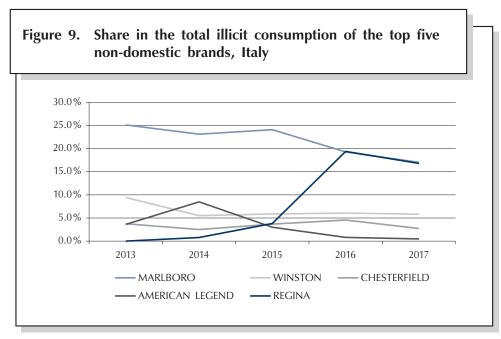
The criminal networks running these illegal factories have adapted to the increased attention institutions started to pay to cigarette brands. The illegal manufacturers followed the strategy of the Bulgarian legal manufacturer involved in manufacturing of domestic illicit whites not to produce large quantities of a single brand in order not to draw institutional attention. They focused on brands of poorly known legal cigarette manufacturers or of illicit white manufacturers.

Italy

The EPS surveys registered 291 non-domestic brands in Italy for the period 2013 – 2017. Three brands dominated the top ten of the non-domestic cigarettes consumed during the whole period - MARLBORO, CHESTERFIELD and WINSTON. The first two are registered trademarks of Philip Morris International and have been subject to contraband from Ukraine and Russia. MARLBORO is also reported as most often counterfeited brand in Italy.90 WINSTON is a registered trademark of Japan Tobacco International and is also frequently smuggled cigarette brand, usually from Belarus, Ukraine and Russia. The three brands are also commonly imported legally by cross-border travellers from Slovenia. Other brands that had a presence at least 3 years within the examined period are AMERICAN LEGEND and REGINA (Figure 9). The first one is a brand of Karelia Tobacco and was in the top ten non-domestic brands during 2013 -2015, whereas the second one is a brand of China Tobacco International Europe and dominated the non-domestic market during 2014 - 2017. Both brands were recorded with a duty-free labelling and can be largely classified as illicit whites of unknown origin.

⁸⁹ EPS data for Bulgaria, 2015, 2018.

⁹⁰ KPMG. (2015). Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results.



Source: EPS data.

Greece

The EPS surveys registered 238 non-domestic brands in Greece for the period 2013 – 2017. However, nine brands have dominated the market for this period – KARELIA, COOPER, GR, MARLBORO, GOLD MOUNT, RGD, PRESIDENT, RAQUEL and ROYAL (Table 4). In 2013, these nine brands accounted for 70% of the illicit

Table 4. Share in the total illicit consumption of the top non-domestic brands, Greece

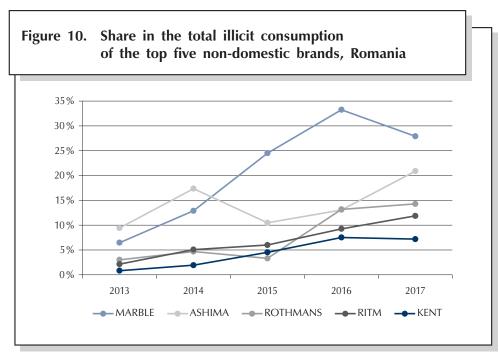
Non-domestic brand	Share in total non-domestic market						
Non-domestic brand	2013	2014	2015	2016	2017		
MARLBORO	3%	3%	8%	10%	15%		
KARELIA	5%	6%	3%	4%	9%		
COOPER	3%	5%	7%	12%	9%		
ROYAL	4%	13%	11%	9%	7%		
PRESIDENT	4%	1%	3%	4%	7%		
GR	8%	8%	8%	10%	6%		
GOLD MOUNT	15%	13%	8%	7%	3%		
RAQUEL	11%	5%	5%	4%	2%		
RGD	16%	6%	7%	3%	2%		

Source: EPS data.

market, although in 2017 their aggregated market share decreased to 59% of the illicit market. KARELIA, COOPER and GR are brands owned by two Greek tobacco manufacturers – the first one by Karelia Tobacco Company and the last two are property of SEKAP S.A. GOLD MOUNT is a brand of the Kaane American International Tobacco Company, which is based in Dubai. RGD is a brand of the manufacturer China Tobacco Hubei Industrial and RAQUEL of the Cyprus-based Explosal Ltd. PRESIDENT is a trade brand of European Tobacco A.S. – the leading producer in Turkey, while ROYAL is a brand of Fabrika duhana Sarajevo in Bosnia. GOLD MOUNT, RGD, RAQUEL, PRESIDENT and ROYAL are all illicit white brands, MARLBORO is among the most often counterfeited brands found in Greece⁹¹ and also among the most often legally brought brands in cross-border trips or by tourists. KARELIA, GR and COOPER are domestic brands from which EPS surveys have registered packs without stamps and, with unspecified labelling and unknown origin.

Romania

Novel Research study registered 138 non-domestic brands in Romania during 2013 – 2017 period, but only eight brands were responsible for over 90% of the illicit market in 2017. These non-domestic brands are MARBLE, ASHIMA, JIN LING, WINSTON, ROTHMANS, RITM, KENT and PLUGARUL. ROTHMANS and KENT are BAT brands, while WINSTON is a JTI brand. RITM and PLUGARUL are Moldavian brands (International Tobacco Orhei and Tutun CTC) while for ASHIMA and MARBLE the trademark owner is Hongta Tobacco (Group) Co., Ltd (China).⁹² JIN LING is a brand of Baltic Tobacco Company.



Source: EPS data.

⁹¹ KPMG. (2016). *Project Sun. A study of the illicit cigarettes market in the European Union, Norway and Switzerland. 2016 Results.*

⁹² https://www.zaubacorp.com/trademarks/proprietorid/1142125

The five most traded brands as share of the illicit market had a remarkable evolution in the period 2013 – 2017 (Figure 10). MARBLE had the most spectacular evolution in time from nearly 6.5% of the total illicit trade in 2013 to 33% in 2017. All these brands were illicitly traded also in 2013, but they represented only 22% of the illicit market that time compared with 82% in 2017.

In the last years, the illicit market in Romania became dominated by a small number of brands. In 2013, 22 brands were responsible for 90% of the illicit market whereas in 2017 only eight brands account for the same market share. The existing data suggests that the illicit market consolidated in this period in terms of suppliers, long term arrangements and major networks involved. The overall performance of law enforcement remained low, since only 2-3% of the illicit cigarettes were seized annually.

2. MEASURING VULNERABILITIES AND THREATS AT REGIONAL LEVEL

2.1. THE SIGNIFICANCE AND CHALLENGES OF MEASUREMENT

The increasing emphasis on the need for evidence-based policy indicates the continuing influence of the modernist school of thought on progress informed by reason. Although the rationalist assumptions of evidence-based policy making have been challenged by some academics, the urge to ground policy making in more reliable knowledge of what works retains its relevance and importance. In the notion of modern government, evaluation is required to play an enhanced role in providing information on performance to enhance accountability and control by results, and in providing evidence of what works to inform policy learning and improvement.

There are two main evidence-based approaches that are usually applied to improve governmental effectiveness. The first is related to promoting accountability in terms of results or, in other words, to provide evidence that government is working effectively. The second approach is to demonstrate how well specific policies and programmes work under different circumstances. These two approaches rely on two different types of evidence. The first primarily relies on evidence about specific aspects of performance and is directly linked to the growing importance of performance management in government – the increasing use of performance indicators and targets in various government institutions. The second is focused on how policy interventions achieve change in social systems. It is grounded in the notion that reliable knowledge provides a sound basis for effective action, as well as understanding of how policies actually work.⁹⁵

As most illicit tobacco products do not meet the quality and health protection standards established for tobacco products, ITTP constitutes not only a financial but also a public health issue. Due to its harmful effects, the EU and the member states have made the fight against ITTP a policy priority.⁹⁶ However, measuring the size and scale of the phenomenon has proven challenging, making this an important first step for the assessment of the impact of the institutional and policy response regarding this illegal market.

Sanders, I. (2002). Evaluation, Policy Learning and Evidence-Based Policy Making, Public Administration
 Vol. 80, No. 1, Blackwell Publishers, Oxford, p. 2.

⁹⁴ Ibid.

⁹⁵ Ibid.

⁹⁶ European Commission. (2013). Progress report on the implementation of the Commission Communication "Stepping up the fight against cigarette smuggling and other forms of illicit trade in tobacco products – a comprehensive EU strategy." COM (2013) 324 final of 6.6.2013.

Monitoring of the illicit cigarettes market has progressed substantially over the past decade. The adoption of the *WHO FCTC*⁹⁷ and the new *Tobacco Products Directive* has resulted in strict regulation of the market and close monitoring of the supply chain from the production factories to the points of sale. The implementation of the European track and trace system for cigarette and fine-cut products will allow for even more precise monitoring of all legally produced tobacco products and their movements across EU member states. However, these measures alone do not provide sufficient ground for assessing the risks of trade in illicit tobacco products, neither for assessing the effectiveness of the public administration in curbing this illegal market.

The typical indicators used by law enforcement authorities to assess their performance in fighting the illicit cigarette market are the number of recorded offences and the number of investigated perpetrators, as well as the amount of seized illegal cigarettes. While these indicators point to the activities and priorities of law enforcement agencies, they fail to provide accurate data about the overall effect of these efforts on the illicit tobacco product market. The tobacco industry has promoted their own instruments such as the empty pack surveys (EPS)⁹⁸ as a proxy indicator about the impact of the overall institutional response on national and regional level against ITTP. However, EPS data also receives many criticisms both from academics and law enforcement practitioners.^{99,100}

The current report details the design and results of the pilot application of a tool that is intended to fill this gap. The present analysis draws on the pilot implementation of this instrument in Bulgaria, Italy, Greece, and Romania to assess the effectiveness of law enforcement bodies' response at the regional level, and to define more precisely the vulnerabilities and threats posed by the illicit cigarette trade. It helps to measure police performance, local institutional capacity, and the major factors affecting the share of illegal cigarettes on regional level.

2.2. VULNERABILITIES AND THREATS IN THE FOUR COUNTRIES

Although Bulgaria, Italy, Greece and Romania deal with different challenges related to ITTP, they also face many common threats and vulnerabilities, which can be grouped in three major categories: deriving from the overall institutional and legal environment in each country, related to the legal tobacco sector and those related to the crime context in each country.

⁹⁷ Framework Convention on Tobacco Control of the World Health Organisation, SG No. 15 of 18 February 2006

⁹⁸ Commissioned by the participating tobacco manufacturers, empty pack surveys are conducted by independent research companies in each individual market (e.g., Ipsos, Nielsen, etc.). The method involves the collection of a large sample of discarded cigarette packs from streets and public bins in randomly selected locations in each market. These cigarettes packs are then analysed by experts in order to identify if they are of domestic or non-domestic origin (based on the individual characteristics of each pack, e.g., the presence of tax stamps, graphic health warnings, etc.).

⁹⁹ Gallagher et al. (2019). "Tobacco industry data on illicit tobacco trade: a systematic review of existing assessments." Tobacco Control, 28:334-345.

¹⁰⁰ CSD. (April 2019). Integrated Index for Illicit Cigarette Market Assessment. Policy Brief No. 84. Sofia: Center for the Study of Democracy.

Institutional and legal environment

The analysis of the legal and institutional environments in the four countries summarised in sections 1.1. and 1.2. above indicates that apart from Italy, where the legal and institutional response to ITTP appears to be effective, the response of the authorities in Greece, Romania and Bulgaria is perceived as weak. The legal frameworks in these countries allow for interpretations of the norms, leading to leniency and inconsistent application of penalties. Law enforcement and customs often lack administrative and technical capacity (e.g. insufficient number of scanners, poor or none IT infrastructure, lack of technical know-how), while the personnel lacks motivation. A major vulnerability factor, especially in Bulgaria, Greece and Romania, is the widespread corruption. In a number of instances, representatives of law enforcement and customs services are part of crime networks themselves. A major vulnerability is also the poor cooperation between the criminal justice and revenue authorities of the Balkan countries, which is successfully exploited by the Balkan criminal networks.

Another common vulnerability shared by Bulgaria, Greece and Romania is political interference in the work of customs and law enforcement authorities. A change in government also ensues changes of the heads of the law enforcement and revenue agencies. Thus, any political instability easily translates into soaring of the illicit tobacco market. This tendency has been observed on several occasions in Bulgaria for example, following presidential or parliamentary elections. The last change of the ruling coalition in Romania also led to active lobbying for the re-institution of duty-free shops at the external borders of the country. In contrast, Italy has relatively stable legal framework and institutions, which remain immune to the political changes in the country.

Certain external factors also have significant impact on the political and institutional priorities in all countries. Thus the increased illegal migration flows in countries like Greece and Italy, but also in Bulgaria during 2014 – 2015, have led to prioritization of this issue over other organised crime threats including ITTP, since law enforcement agencies were under pressure to re-allocate significant financial and human resources to deal with the migration crisis.

The legal market for cigarettes

The harmonisation of the excise duty rates across the EU has undermined the consumer base at the licit markets in some of the analysed countries. The pre-set minimum excise rates do not take into account the significant differences of the price affordability of tobacco products in the different countries. Thus, for example, the cost of a pack of cigarettes in Bulgaria has reached 26.1% of the daily disposable income in Bulgaria as a result of the steep excise duty increase in 2010 and was a major driver for the surge in ITTP in the period. Although after 2010 this ratio has improved, the cost of pack of cigarettes is still 16.7% of the daily disposable income. During the period 2010 – 2017 the price affordability in Greece, Italy and Romania has also worsened. Currently, Romania is the country with lowest price affordability in the EU, 20.3% of the daily disposable income. The increase of the taxation coupled with the worsening price affordability of tobacco products were reported as important vulnerability factors that contributed to the rise of the ITTP in Romania and Greece. In Bulgaria the increase of the price affordability in the last five years is one of the factors associated with the decline of the ITTP market.

Other important vulnerabilities related to the licit market is the presence of certain companies – either producers or retailers – which along with their legitimate business have periodically engaged in unlawful practices. In Bulgaria, one of the main domestic producers has engaged with high-risk traders linked to tax evasion schemes and illegal distribution of its cigarettes without the due excise duties. Similar cases have been reported about some of the domestic Greek tobacco producers. In Romania, a branch of a big Asian producer also engaged in such practices, along with numerous low-level retailers reported to distribute illicit tobacco products.

Crime context

The third important category of threats and vulnerabilities related to ITTP are linked to the presence of well-established trafficking routes (the so-called Balkan route), as well as the historic presence of native organised crime in the four countries. Organised crime in the four countries has managed to a different extent to infiltrate law enforcement, local authorities and administration in strategic areas and ports and makes use of this for the manufacture or transit of illicit tobacco products. Similarly important vulnerability factor in this category is also the overall social acceptability of dealings on the black market and consumption of illicit products. Thus, perpetrators in the ITTP market are not seen as posing the same danger to society as other types of criminals. It is often that organised crime groups employ entire networks of low-level distributors from marginalised social groups – disadvantaged, poor, jobless, etc. Generally, rural, economically challenged areas seem more affected by illicit trade than the urban territories in all four countries.

The analysis of the structure and modus operandi of organised crime groups involved in ITTP in the four countries suggests that there could be distinguished two different kinds of criminal organisations. The first kind of organisations have specialised in illegal distribution of illicit tobacco products for the domestic markets. The second kind have specialised in cross-border trafficking and they smuggle illicit tobacco products for the major Western Europe markets. The latter organisations are often collaborating with criminal actors from all four analysed countries and are transnational. They are also exploiting the free movement of people and goods within the EU and the legal constraints and weaknesses in the collaboration between the criminal justice authorities in Europe.

As evident from the analysis, the identified risks and vulnerabilities of the tobacco sector in the four countries are quite diverse and derive from different causal factors – from overall legal and institutional environment, to tobacco sector specifics and presence of organised crime.

Moreover, many of these factors are in a constant and complex interplay. Careful and thorough assessment of these factors is a necessary prerequisite for designing proper strategy to tackle ITTP on national and regional level, since only a comprehensive approach can guarantee clear and sustainable results. In this regard a major consideration is the availability of homogeneous data regarding the market. Institutional frameworks need to be shaped as to allow for the collection of data at all levels (production, transport, retail) that would allow for proper analysis and forecast on potential illegal activities.

2.3. ILLICIT CIGARETTE MARKET ASSESSMENT MODEL

The illegal cigarette trade is very much influenced by regional specifics. The role of cross-border smuggling, the difficulties in running nation-wide distribution networks, differences in local demand and purchasing power, the impact of tourism and a host of other factors contribute to variations in this illegal market not only among countries but also among regions of the same country.

There have been continuing debates among law enforcement bodies, the tobacco industry and experts concerning the most appropriate indicators for police performance at regional level. The approach to the assessment of the illicit trade in cigarettes and the effectiveness of regional police forces in countering illicit cigarettes presented here is conceived as a contribution to these debates. The preliminary mapping on the topic identified a total of 25 distinct factors and a test was conducted of their effect on the proportion of non-domestic cigarettes at regional level.¹⁰¹ Out of them, six variables turned out to produce a significant effect on the level of illicit cigarettes. They were grouped in four indexes to form a **comprehensive model for the assessment of the illicit cigarette market at the regional level.**¹⁰² (Figure 11).¹⁰³

The model groups factors under two categories related to their statistically significant influence on the level of illicit cigarettes in the area. The first one brings together factors affecting negatively the illicit trade (barriers), while the second one lists factors that facilitate it (drivers). The two main factors curtailing the illicit trade and directly linked to the operation and capacity of regional police units or divisions are under the indexes police effectiveness in seizing illicit cigarettes and police workforce. The higher the value of these indexes in a particular region, the lower the share of illegal cigarettes. The other factors constraining the illicit market are strictly economic. They are grouped under the index economic development and tourism in the region. It is not affected by law enforcement activities and includes two variables: the average income for the region and the number of nights spent by foreign citizens visiting the region. The second group of factors that facilitate the illicit cigarette market are assembled under the index illegal activity¹⁰⁴ in the region, which is calculated on the basis of property crimes recorded by MoI and tobaccorelated administrative offenses penalised by the customs authorities. The higher the index for a given region, the bigger the proportion of illicit cigarettes in it.

The availability of data did not allow all four indices to be calculated for all four countries. The only index that has been calculated for all four countries is **police effectiveness in seizing illicit cigarettes**. The **police workforce** index

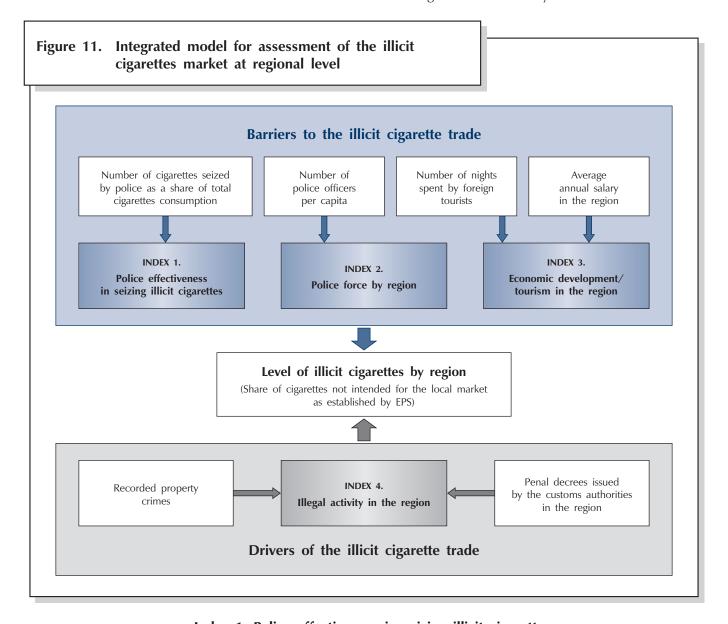
The so-called non-domestic cigarettes are cigarettes of brands not intended for the domestic market and are a key indicator measured by the EPS. The non-domestic cigarettes indicator encompasses illicitly produced (counterfeit), and illicitly traded cigarettes, as well as cigarettes legally purchased abroad that have been brought to the country by foreign citizens or nationals. Since EPS provides the only available data on consumption of illicit cigarettes on regional level, in the current analysis non-domestic cigarettes are used as a proxy indicator of illicit cigarettes. Therefore, in many parts of the report illicit cigarettes and non-domestic cigarettes are used interchangeably.

¹⁰² Unless otherwise specified, the conclusions in this section are applicable to the level of regions.

 $^{^{103}}$ The full list of the tested variables and the methodological approach are available in Annex I.

¹⁰⁴ Including conventional crime, administrative violations, corruption, etc.

was calculated for Bulgaria and Romania. The index **economic development and tourism** was calculated for Bulgaria, Italy and Romania, whereas the index **illegal activity** was calculated for Bulgaria and Romania. The four indexes assign a score on a scale from 0 to 100 to each region in the country.



Index 1: Police effectiveness in seizing illicit cigarettes

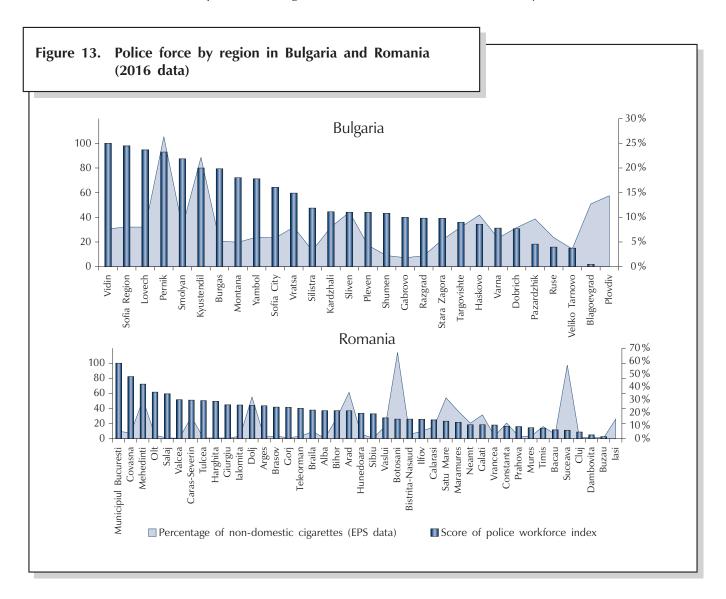
The preliminary analysis of the effect of police operations on the illicit cigarette market by region entailed testing two types of data – number of uncovered crimes involving excise goods and number of seized cigarettes. The statistical analysis showed that of the two indicators only the number of seized cigarettes has any significant effect on the level of illicit cigarettes by region and it was therefore included under index 1. The index allows to rank regional police services by their effectiveness for a given year. If the index results are compared to EPS data for 2016, for instance, one could – given the overall market drop on a national scale – identify the best performing regional directorates (Figure 12).

Figure 12. Police effectiveness in seizing of illicit cigarettes at regional level for Bulgaria, Greece, Italy and Romania (2016 data) 30% 5% Bulgaria 5% 25% 4% 4% 20% 3% 15% 3% 2% 10% 2% 1% 1% Razgrad Vratsa Vidin Pleven **Targovishte** Sofia Region Plovdiv Varna Stara Zagora Pernik Shumen Montana Veliko Tarnovo Gabrovo Kyustendil Sofia City Kardzhali Dobrich Blagoevgrad Pazardzhik Yambol Greece Italy 3% 25% 25% 3% 20% 5% 20% 2% 4% 15% 15% 2% 3% 10% 10% 1% 2% 5% 5% 1% Venedo frum Veneda Ciuna Akoda ci Andaliki Macadajia i irraki k Campania Lalabria raccionia Hada usi Lingua Ellada 0% Orthi Maredonia Basilicata Henry Algio 25% 70% Romania 60% 20% 50% 15% 40% 30% 10% 20% 5% 10% Municipiul Bucuresti Maramures Olt Galati Caras-Severin Neamt Timis Ialomita Teleorman Mehedinti Calarasi Dambovita Constanta Bihor Valcea Ilfov Sibiu Mures Prahova Arges Arad Harghita Dolj Suceava
Satu Mare
Buzau
Salaj
Braila Covasna Bistrita-Nasaud lasi Percentage of non-domestic cigarettes (EPS data) ■ Police effectiveness in seizing illegal cigarettes

The index allows for more precise assessment of the impact of police efforts to curb the regional illicit market since it puts the outcomes of their activities in context. Thus, it allows to establish more accurately the performance of the regional structures instead of simply comparing the EPS score of non-domestic cigarettes, since this level is obviously shaped by other external factors as well. The comparison of the share of non-domestic cigarettes at regional level with the police effectiveness in seizing illicit cigarettes clearly demonstrates that police activity is an important but not the only factor determining the level of illicit cigarette consumption. This is particularly evident from the data on Greece, where the two regions with most efficient district police directorates also have some of the highest levels of illicit cigarette consumption.

Index 2: Police workforce by region

In order to assess police efficiency, quantitative indicators were sought measuring the resources and capacity of each law enforcement division, including its capabilities to fight illicit trade. However, the necessary data on the financial and



technological resources of regional services which could be analysed statistically are not publicly available in most countries. Thus, a single indicator for which such public data could be found was used, i.e. the number of police officers as per the region's population. The analysis reconfirmed this indicator's serious effect on the level of illicit cigarette trade (Figure 13).

The present assessment uses the number of police officers per 1,000 inhabitants, which is the basis of the index police workforce by region. The public data available by region does not represent the proportion of officers directly engaged in tackling the illicit cigarette trade, so the total number of officers had to be used. Collecting data on the number of police officers involved in combatting the illicit cigarette market at regional level and making it publicly accessible would be a step towards improving this index. In this case, it was calculated only for Bulgaria and Romania, since the authorities in Greece and Italy did not disclose information about the personnel distribution at regional level.

Index 3: Economic development of the region

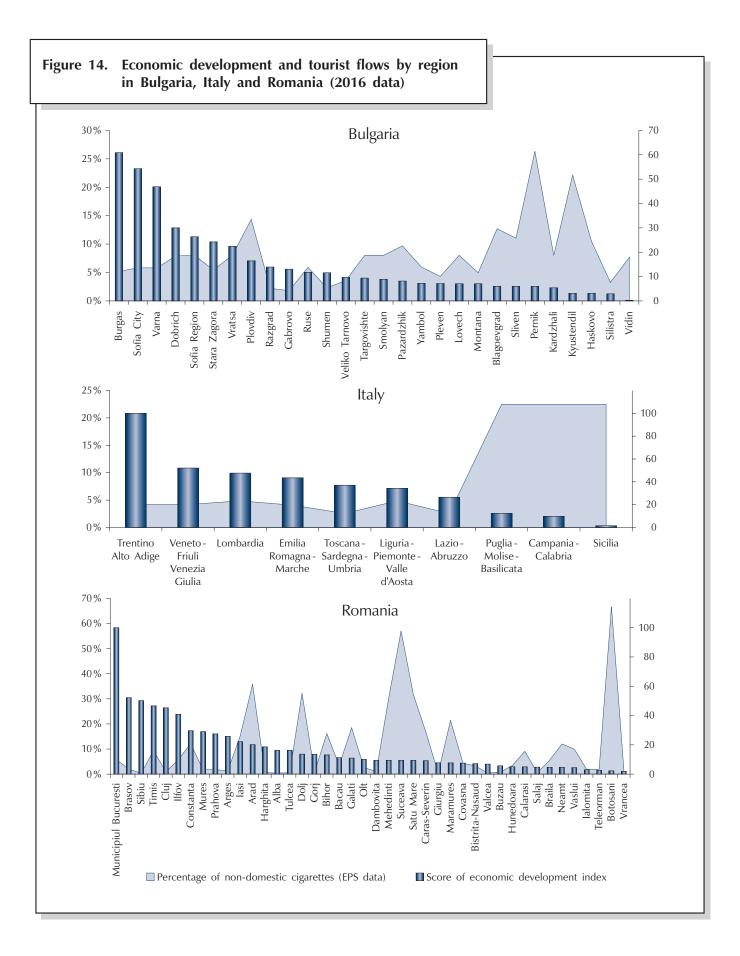
Alongside police response, the spread of illicit cigarettes in a given area is strongly influenced by a number of economic factors determining local demand. A key factor is the uniform price of cigarettes of the same brand at national level. In contrast to alcohol and fuels – the other main excise goods whose prices vary from area to area or from one retailer chain to another, reflecting local purchasing power – such price discrimination is prohibited by law in the case of tobacco products. At the same time, the difference in affordability of legal tobacco products between regions may be as high as 200% (e.g. between the capital cities and the lowest-income regions in Bulgaria or Romania). Several economic variables for which data are collected at regional level by national statistics were tested, among them unemployment rate and GDP per capita. As the analysis shows, the variable with highest impact on the share of cigarettes not intended for the local market is the average annual salary.

Contrary to the strictly controlled legal cigarette prices, those of illegal tobacco products vary greatly, even within the boundaries of the same city, proving them highly sensitive to the population's purchasing power. Across a country, income variations between different regions reach 50-70% depending on local economic conditions. Such fluctuations exercise a growing price pressure on consumers, making illicit products more attractive.

A number of international studies¹⁰⁶ find that cross-border trade and the inflow of tourists increase the level of cigarettes not intended for the local market, assuming that tourists usually bring their own cigarettes when entering the country. The

Discrepancies with the remaining economic indicators such as per capita GDP could be explained by the companies' registered addresses. The preliminary analysis of the collected data suggests that companies tend to register in the large cities, although their facilities might be located in other parts of the country.

¹⁰⁶ See, for instance, Gilmore et al. (2014). "Towards a Greater Understanding of the Illicit Tobacco Trade in Europe: A Review of the PMI Funded 'Project Star' Report." *Tobacco Control*, 23: 51-61; Gallagher et al. (2019), "Tobacco industry data on illicit tobacco trade: a systematic review of existing assessments." *Tobacco Control*, 28:334-345.



statistical analysis for Bulgaria, however, showed the reverse to be the case – the impact of tourists (counted by the number of nights spent in a given region) is to decrease rather than increase the share of illicit cigarettes. This could be explained by the fact that a busier tourist industry raises the income level in the respective region. At the same time, tourists obviously opt for the local legal cigarettes as these are also cheaper than in their countries of origin (at least for Bulgaria and Romania).

The index economic development and tourism captures the impact of both the purchasing power of the consumers and the tourist flows in a given region (see Figure 14). Regions with higher score on the index tend to have lower consumption of illicit cigarettes. Since there was no recent regional data on annual average salary for Greece, the index could not be properly calculated for this country.

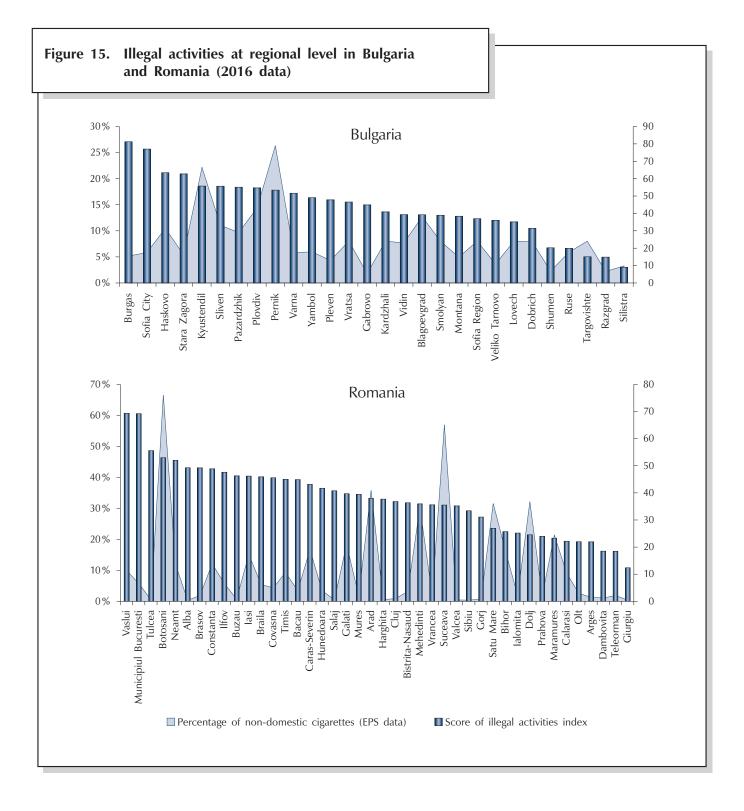
Index 4: Illegal activities at regional level

Previous studies of ITTP have suggested that illicit cigarette distribution in a region often relies on the local criminal networks. Within the statistical analysis, a number of indicators for criminal activity were tested to verify their relation to the level of the local illicit cigarettes market. Over 80 types of recorded crimes as per the Bulgarian *Criminal Code* were examined for their predictive power in relation to illicit cigarettes in each region. The findings indicated that most organised crimes such as drug dealing, car theft and the like, are poor predictors for the size of the illicit cigarette market. The best predictors for the level of illicit cigarettes turned out to be the crimes against property. They seem to be the best indicator for measuring local criminal activity, closely reflecting the reach of the criminal networks in the region.

The number of penal decrees for offenses established by administrative acts of the customs authorities was found to be another factor related to the level of the local illicit cigarette market. These acts are issued for excise tax offenses and could be viewed as an indirect indicator of the size of the local grey sector.

The illegal activities index was constructed as weighted mean of the first two indicators. Unlike the other indexes, this one can be classified as a driver of ITTP, wherein the higher its score the higher the level of non-domestic cigarettes in the region (see Figure 15). However, since there was no data on penal decrees issued by regional customs authorities in Italy and Greece, for those two countries the index could not be properly calculated.

¹⁰⁷ CSD. (2015). Financing of Organised Crime. Sofia, Center for the Study of Democracy.



Integrated index for illicit cigarette market assessment

The presented theoretical model and core factors can also serve as a basis for the development of an integrated index that could be used as a tool for the assessment of the **illicit cigarette market at regional level**. The integrated index is calculated as a weighted average¹⁰⁸ of the four indexes detailed above. On the basis of the index values, the regions are ranked from 0 (lowest risk) to 100 (highest risk). The statistical analysis demonstrates that the index significantly correlates with the EPS scores of non-domestic cigarettes at regional level.

At the same time, the integrated index offers some advantages over using EPS score of non-domestic cigarettes for assessing the ITTP risk at regional level. First of all, the integrated index is calculated from publicly available data, which is a cheap alternative to the other known methods relying on sample surveys. Secondly, EPS regional data is actually drawing on data collected only in regional cities, whereas the index works with official regional statistics such as average income, number of police officers, number of property crimes. The integrated index also builds on four different types of factors that allows for broader assessment of the overall context in a given region and thus better captures of the dynamics behind the manifested levels of non-domestic cigarettes.

Better police effectiveness in seizing illicit cigarettes, greater police workforce and better economic development would improve the ranking of the respective regional directorate, whereas a higher illicit activity level would place it lower on the list. The police effectiveness in seizing illegal cigarettes index measures the performance of law enforcement at regional level. All regional directorates of law enforcement authorities are assessed based on their effectiveness in seizing illicit cigarettes. At the same time, stronger drivers like police force strength, economic development of the region and criminal activity at regional level also determine the size of the ITTP market. The interplay between these four types of influences is not simple and unidirectional. For example, the task of the police in less economically developed regions is apparently more challenging - domestic cigarettes are less affordable and the risks of ITTP are higher. On the other hand, the data suggest that there is a tendency (at least in Bulgaria) for the police force to be somewhat larger in such low-income regions and this has a suppressive effect on the illicit cigarettes level. Conversely, there are more unoccupied positions in police precincts of high-income regions because of the abundance of better paid job opportunities. Thus, in low-income regions police force strength partially compensates for the lower affordability of licit tobacco products.

The **integrated index for illicit cigarette market assessment** highlights the regions at risk, making it clear where extra efforts are needed to curb the illegal market (see Figure 16). Thus, the integrated index also assesses the extent to which local law enforcement services are hampered by the environment in which they operate. The four indexes can additionally help define the type of measures relevant to a given region to further suppress ITTP. Drawing on the average value

¹⁰⁸ In calculating it, the weighted average of this indicator against its effect at the level of illicit cigarettes was taken into account. The detailed methodology of the statistical analysis is presented in Annex I.

Figure 16. Index for assessment of the illicit cigarette market at regional level (2016 data) Bulgaria Romania Vaslui Haskovo 78.21 Botosani 81.84 Kyustendil 77.56 Neamt 79.59 Braila 77.94 Pernik 72.43 Covasna 76.82 Sliven 68.81 Buzau 76.62 Salaj 76.37 Vidin 67.16 Hunedoará 74.91 Pazardzhik 65.41 Vrancea 74.89 74.80 Tulcea Yambol 63.87 Caras-severin 74.19 Pleven Valcea 72.65 Bacau 72.43 Kardzhali 58.86 Mehedinti 71.94 Smolyan 55.29 71.57 Bistrita-nasaud Galati 70.89 Montana 54.88 **Ialomita** 70.55 Lovech 53.97 Suceava 70.49 Teleorman 67.92 Plovdiv 53.50 Calarasi 67.82 Blagoevgrad 53.41 Satu Mare 67.34 67.12 Harghita Stara Zagora 52.65 lasi 66.42 Gabrovo 50.48 Maramures 66.18 Arad 65.96 Veliko Tarnovo 46.09 Olt 65.37 42.92 Vratsa 64.67 Bihor 64.49 Doli Shumen Constanta 63.97 Sofia Region 31.33 Alba 63.91 Dambovita 62.97 Sofia City 30.07 Mures 60.97 Targovishte 29.87 58.91 Gorj Giurgiú 58.83 Ruse 29.84 Ilfov 57.76 Silistra 28.98 Arges 56.55 Prahova 55.77 24.15 Razgrad Timis 53.01 Burgas 23.79 Brasov 51.63 Cluj 49.24 Dobrich Sibiú 47.07 Varna Municipiul Bucuresti 34.25 20.00 40.00 60.00 80.00 100.00 20.00 40.00 60.00 80.00 100.00 Italy Greece Liguria - Piemonte -Attiki 98.58 100.00 Valle d'Aosta Dytiki Ellada Lazio - Abruzzo 98.02 Kriti 55.90 Lombardia 90.30 Peloponnisos 54.71 88.83 Sterea Ellada 54.46 Emilia Romagna - Marche Anatoliki, Macedonia, Thraki 53.59 Sicilia 81.69 Dytiki Makedonia 50.72 Puglia - Molise - Basilicata 72.66 **Ipeiros** 47.84 Campania - Calabria 69.82 Thessalia 46.52 Kentriki Makedonia 45.58 Toscana - Sardegna - Umbria 65.53 Voreio Aigaio 44.25 Veneto - Friuli Venezia Giulia 44.69 12.70 Ionia Nisia Trentino Alto Adige 0.12 Notio Aigaio 0.00 $0.00 \quad 20.00 \quad 40.00 \quad 60.00 \quad 80.00 \quad 100.00$ $0.00\ 20.00\ 40.00\ 60.00\ 80.00\ 100.00$

of each index, it could be decided whether measures should focus on streamlining internal organisation to raise the effectiveness of seizures, on increasing the number of officers, or on stepping up measures against perpetrators of crimes against property.

Although the integrated index can be calculated even when some of the input data is missing, its predictive power would evidently be lower in such cases. This is why especially for Greece and Italy, the scores produced within the pilot testing should be interpreted with great caution. Moreover, the initial elaboration of the model was done drawing on the Bulgarian dataset, since it was the most complete and exhaustive. However, it can be expected that in all countries there are various country-specific factors that have a significant impact on the levels of non-domestic cigarettes in the country and have not been accounted for. An example in this regard is the strong mafia presence in Southern Italy, where EPS shows high levels of illicit cigarettes.

The analysis demonstrated the potential for a more comprehensive assessment of police performance and the limitations of the model resulting from the lack or insufficiency of certain type of data at regional level. Such a caveat applies to the pilot results of the model, so they should be interpreted with caution. This leaves room for further elaboration and refining of the model and the integrated index. One way of making the assessment more reliable would be for law enforcement bodies to enhance data gathering by region.

2.4. MEASURING VULNERABILITY TO CORRUPTION IN POLICE ENFORCEMENT

While the integrated index assessing the illegal cigarette market in a given region operates with publicly available statistical data, there are a number of other contributing factors for which no direct official data exist. Given the clandestine nature of the market, the capacity of criminal entrepreneurs is difficult to assess; this is especially so with respect to their capacity to ensure privileged position on the illegal market and immunity from prosecution by way of various methods of corruption.

Fortunately, covert activities when they affect large populations – such as, in this case, smokers – tend to leave a number of giveaway traces which – given an appropriate matrix for their interpretation – could be brought to light. Deviations in the seizures of illegal cigarettes by local law enforcement is one such indicator which points to vulnerabilities and threats – corruption chief among them – at the regional level.

Corruption has long been one of the main tools utilised by organised crime to access anticipatory information, acquire competitive advantages, avoid police investigation and prosecution, facilitate different aspects of illegal activities and infiltrate the legal economy.¹⁰⁹ Illicit trade in tobacco products is a typical example in this relation, since in many cases the criminal groups and networks use corruption¹¹⁰ as a tool to facilitate this trade; usually corruption pressure is exerted on police and customs offices and in Eastern Europe also on public officials on regional and national level. The use of corruption in ITTP provides organised crime the opportunity to groom a larger customer base for its illicit products, secure uninterrupted operation of its retail vendors.¹¹¹

One of the possible approaches to elucidating the use of corruption is to use indirect indicators such as the presence of significant deviations in the implementation of the legally prescribed functions of the competent authorities and indicators on the presence of market actors with a significant advantage over the others. Such an approach was recently suggested as a way to assess levels of state capture and is at the base of the recently developed State Capture Assessment Diagnostics¹¹² instrument. State capture is a specific type of corruption that involves illegitimate participation in the rule-making process, which brings benefits to both the legislator and private actors who provide resources.¹¹³ The

Europol. (2017). Serious and Organised Crime Threat Assessment 2017 (SOCTA 2017). The Hague: European Police Office.; Gounev & Ruggiero. (2012). Corruption and Organized Crime in Europe. Illegal partnerships. London: Routledge; UNODC. (2010). The globalization of crime. A transnational organized crime threat assessment.

For example, Joosens & Raw, From cigarette smuggling to illicit tobacco trade. Tobacco Control, 2012; 21:230-234; CSD. (2010). Examining the Links between Organized Crime and Corruption. Sofia: Center for the Study of Democracy; WB, Confronting Illicit Tobacco Trade: A Global Review of Country Experiences, 2019.

¹¹¹ CSD. (2010). *Examining the Links between Organized Crime and Corruption*. Sofia: Center for the Study of Democracy, pp. 129-130.

¹¹² CSD. (2019). *State Capture Assessment Diagnostics,* Sofia: Center for the Study of Democracy, pp. 39-40.

Hellman, J., Jones, G., and Kaufmann, D. 2000. Seize the State, Seize the Day: An Empirical Analysis of State Capture and Corruption in Transition Economies. World Bank Policy Research Working Paper 2444. Washington D. C.: World Bank.

suggested empirical assessment model of state capture relies on measuring proxies for the existence of privileged actors (in the economy or in a given sector) or deviance in the behaviour of public institutions (either from a good governance standard or from expert expectations/average for the country/sector). The proxies indicate state capture vulnerabilities in different dimensions, rather than being direct evidence for a realised capture.¹¹⁴

The current analysis follows a similar approach and presents a new tool — the cigarette brands seizures deviations index (SDI). The SDI allows to identify potential corruption vulnerabilities in the law enforcement practices with regards to ITTP at an early stage. The index allows to flag indications of the presence of privileged actors in the illicit cigarette market. The tool also builds on the integrated index for illicit cigarette market assessment presented in the previous section. The SDI compares data on seized illicit cigarettes by law enforcement and customs authorities with the data from the empty pack surveys in Bulgaria, Greece and Italy. The unit of analysis is the brand of illegally traded cigarettes and the suggested approach takes into account both the intensity of seizing of different brands (measured as proportion to the average country level of seizures) and their regional distribution in the country. The discrepancy between the EPS data and the data on seizures flags up vulnerabilities in police effectiveness as well as the potential presence of privileged market actors by brand and region.

The detailed data accumulated in recent years on the brands of illicit cigarettes by both the public administration and the EPS provide an opportunity to track the trends in the illicit tobacco market. The analysis covers the period between 2012 and 2017, since this was the period where both data on police/customs seizures and EPS data exist. These data also provide an opportunity to assess anomalies, including indications for presence of privileged actors in the illicit market at national and regional levels.

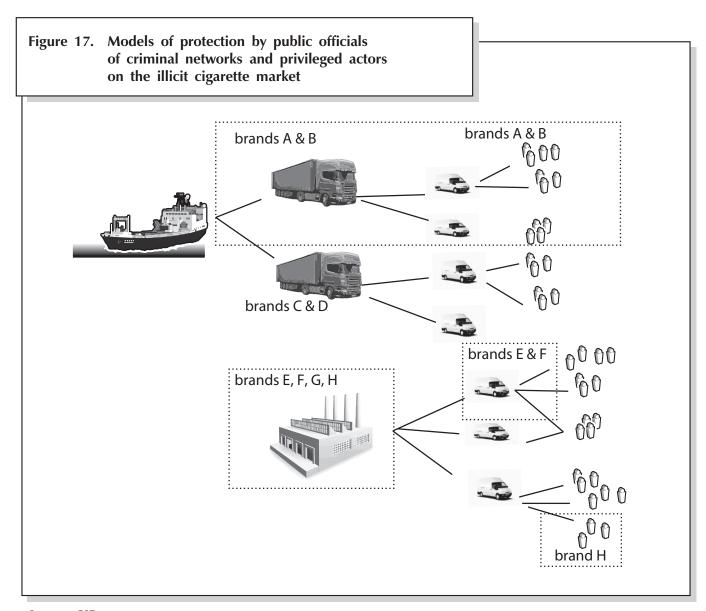
The analysis of EPS brands data provides opportunities to understand the broader market context and the criminal networks behind the distribution of specific illegally traded brands. Furthermore, the analysis allows to track how the main networks adapt to the criminal justice and administrative response of the public institutions. The recently improved and more detailed data on seizures of illicit tobacco collected by the public institutions also make possible to extend the analysis on regional level and through comparison with EPS brands data to identify potential corrupt practices.

The main assumption behind this analysis is that the **structure of the criminal market is contingent on the illicit cigarette brands**. In other words, the diverse criminal networks have access to different sources of illicit cigarettes and therefore usually smuggle or trade in different brands. Thus, illicit cigarette brands may be used as an **indicator for identification of the particular criminal network that smuggles or distributes them**. Few criminal networks possess the necessary contacts and relations of trust to establish a smuggling channel for illicit whites from, say, Dubai. Once the illicit white cigarettes are smuggled into the country, traffickers usually sell

¹¹⁴ CSD. (2019). State Capture Assessment Diagnostics, p. 39.

 $^{^{115}}$ A detailed description of the methodology for the index calculation is provided in Annex II.

the product only to trusted regional players that also tend to work with particular retailers. Similar supply chains grounded in networks of trusted relations are behind the illicit distribution of most illicit brands. In many cases the smooth operation of these supply chains is facilitated with bribes to customs or law enforcement officials. Organised crime groups use these corruption payments in order to lower the risk of apprehension or seizure of the illicit product and in some cases manage to attain protection and certain competitive advantage over rival criminal competitors on some or all levels of the illicit supply chain (Figure 17). Thus, in a given city privileged actors in the illegal market can become dominant, since police or custom authorities would actively target their competitors. This in turn is expected to result in lower number of seized illicit cigarettes from particular brands.



Source: CSD.

¹¹⁶ CSD. (2015). Financing of Organized Crime. Sofia: Center for the Study of Democracy.

¹¹⁷ CSD. (2010). *Examining the Links between Organized Crime and Corruption*. Sofia: Center for the Study of Democracy.

Drawing on the above assumptions, a new tool – **the cigarette brands seizures deviations index (SDI)** – was developed in order to assess the risk of potential corruption practices in law enforcement and customs institutions at regional level. The index captures significant anomalies or deviations in the levels of seizing different cigarette brands at national and regional level. In this case, the deviations are instances where the amount of one or a group of illegal brands seized in a particular city is significantly lower than the average national level. For this purpose, annual data on levels of seizures by police nationally are compared to EPS data regionally, which allows to identify problematic brands with significantly lower seizures. The reasons for these deviations may vary: from significant level of cross-border travellers that legally import a popular cigarette brand, a new criminal network entering the market or emergence of new supply channels or presence of resilient corrupt practices among law enforcement in regional structures.

Data about illicit cigarette brands registered by EPS for the respective year are used as a basis for this index. Calculating SDI includes three steps. The first is assessing annual illicit tobacco consumption in the country for each brand based on its percentage share as per EPS. The second is an assessment of the average level of police seizures per brand at the national level. The last step is comparing seizure levels of each of the brands to the average police effectiveness in seizing illicit cigarettes country-wide. SDI shows the deviation in levels of seizures for each of the seized brands compared to the average levels of seizures in the country. Thus, the degree of corruption risk pertaining to every brand is determined. SDI assigns a score on a scale from 1 to 100 for each brand registered by EPS surveys in the country. In case there were no seizures of a particular brand by police, SDI cannot be calculated¹¹⁸ and is therefore equalled to 100. Similarly, all SDI scores bigger than 100 are also equalled to 100. The less a specific brand is being seized compared to the average for all brands in a country, the higher score it would receive. Therefore, SDI provides an opportunity to determine the highestrisk brands in the country.

For the calculation of SDI, only data for the period between 2013 and 2017 were used, due to the fact that both EPS data on brands and data from public institutions on seized illicit cigarettes per brand were available. The two sets of data were available only for Bulgaria, Italy and Greece, whereas in Romania no data on illicit brands was available on national level.

High-risk brands and privileged criminal market players at regional level

High-risk brands

The SDI captures significant deviations in fulfilling the legally prescribed functions to the police and customs agencies in seizing illicitly traded cigarettes. Comparing the index with the regional EPS data provides the opportunity to locate where these poorly seized brands are most often consumed (Figure 18), as well as what their market share is per city.

¹¹⁸ Division by zero is not a valid mathematical operation.



Source: CSD calculations based on EPS data.

¹¹⁹ The labelled brands are seized more than five times less often compared to the average national levels and, according to EPS, 100 or more cigarettes of the brand were found in the respective region.

The application of SDI for Bulgaria revealed that two of the identified high-risk brands BUSINESS ROYALS and ROYAL dominated consumer preferences across 13 out of 28 regions in Bulgaria in 2017. Expert opinions link those two brands to a recently apprehended organised crime group, whose illicit factory was uncovered in 2019 near the town of Plovdiv. Allegedly the illicit factory previously operated in Greece. The brand AMERICAN GOLD EAGLE, which is most popular in another four regions, is reportedly linked to a legitimate domestic producer. Similarly, in Greece, two high-risk brands WINSTON and GR dominated most of the regions, although GR is apparently concentrated mostly in north-eastern Greece and Attiki. In Italy, the regional differences were much higher and none of the high-risk brands had a significant country-wide presence.

Privileged actors in the local illicit markets

The high market share of a given non-domestic brand can be used as an indicator for the presence of a certain competitive advantage such as high recognition and preference for the brand, better quality, low price and easy opportunity to be bought from a neighbouring country or well-established network for illicit distribution. The simultaneous presence of significant anomalies (deviations) in seizing a certain brand and a high market share among illicit cigarettes in a particular town can be used as a method to identify privileged criminal actors and, thus, indirectly – potential corrupt practices.

The applied SDI identifies nine high-risk brands in Bulgaria for 2015, seized more than ten times less often than the average police state levels – DON, EVE, FAMOUS, MEHR, MURATTI, TURQUOISE, VELVET and MARSHAL (Table 5). Packs of these brands were found in considerable amounts in 10 Bulgarian towns according to EPS in 2015 – Blagoevgrad, Gabrovo, Haskovo, Montana, Plovdiv, Sofia, Svilengrad, Varna, Veliko Tarnovo and Vidin. Comparing SDI scores and the EPS data shows that two brands – DIVA and TURQUOISE – had the highest share of all illicit cigarettes, reaching between 19% and 33% of the market in four of those towns (Blagoevgrad, Varna, Veliko Tarnovo and Montana), thus indicating the potential presence of privileged criminal actors there.

The regional risk analysis based on illicit cigarette brands data can be further amplified by bringing in expert assessments on the origin of the brands. Eight illicit white brands – BOHEMI, DIVA, DON, FAMOUS, TURQUOIS, MY WAY, MERILYN, PALLADIUM – are allegedly all linked to the same legitimate Bulgarian manufacturers. Thus, when considering market shares of illicit brands across the different regions it is more appropriate to account for the market share of all brands from the same criminal network. Among other things, this allows to establish the actual market position and power of a given criminal network on the illicit market, since they may distribute more than one particular brand. Apparently, when market shares of all illicit brands from the same origin are banded together, this not only uncovers more localities with privileged market players, but also reveals that they have much greater market power (Figure 19).

The application of SDI in Italy identifies 13 high-risk brands in 2016 – BUSINESS ROYALS, CHESTERFIELD, COMPLIMENT, EMAIL, GOLD MOUNT, L&M, MARK 1, MERIT, ORIS, PALL MALL, PINE, RGD and ROTHMANS. All of these brands have

Table 5. Potential local privileged criminal actors in Bulgaria based on SDI and EPS

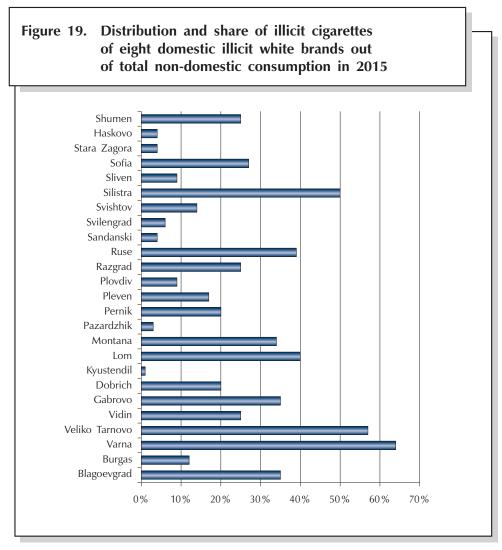
Blagoevgrad, 2015			Varna, 2015			
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI	
DIVA	27%	10	TURQUOISE	24%	34	
TROKADERO	17%	0.3	BOHEMI	18%	6	
YORK	17%	0.4	MEHR	14%	14	
BENSTON	10%	4.9	PALLADIUM	13%	3	
TURQUOISE	6%	34	ROTHMANS	5%	2	
N/ 101						

Veliko Tarnovo, 2015			Montana, 2015			
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI	
DIVA	19%	10	RAQUEL	36%	0.2	
TURQUOISE	16%	34	TURQUOISE	33%	34	
MY WAY	16%	2	LEADER	5%	4	
MARBLE	11%	1	PRESIDENT	3%	0.1	
LE BLANC	11%	100	PINE	3%	1	

Source: CSD calculations based on EPS and Ministry of Interior data.

not been reported among the illicit brands seized by the Italian authorities in 2016 and therefore have the highest SDI score of 100. The analysis of their regional distribution reveals that EPS has registered considerable amounts of these brands in six Italian cities – Catania, Milan, Naples, Palermo, Turin and Trieste (Table 6). In Catania and Palermo, the illicit white brand PINE had total domination on the illegal market, whereas another illicit white brand – REGINA – dominated the illegal markets of Naples and Turin. The regions of Sicily and Campania have a long tradition in bootlegging and trafficking all kinds of illicit goods and strong presence of mafia-type organised crime groups, so presence of privileged actors in the illegal market is no surprise for cities such as Catania, Palermo and Naples. Some of these groups also have presence in northern Italy. However, in Milan and Trieste the brand with leading market share is MARLBORO, wherein most of the packs recorded by EPS in Milan indicate Ukraine as origin and in Trieste – neighbouring Slovenia. This suggests that the potential privileged market actors in the two cities have East European origin.

The application of SDI in Greece identified six high-risk brands in 2016 – ASSOS, AVALON, GR, PALL MALL and L&M. They all have an SDI score above 10 and have been registered with considerable amounts in 12 Greek cities – Acharnes,



Source: CSD calculations, based on EPS and Moi seizure data.

Athens, Chania, Ioannia, Iraklion, Kordelio-Evosmos, Larisa, Patras, Pavlos-Melas, Peristeri, Thessaloniki and Volos. The only brand that had a significant market share was GR and it had a significant market share in three cities – Ioannia, Iraklion and Volos, thus making them cities where privileged actors may have a presence on the illegal market.

The examples provided above demonstrate that the application of SDI could serve as a cost-efficient method to aid institutions in red-flagging privileged actors in local illicit markets and, thus, indirectly – potential corruption practices. However, the method should be applied with caution, since it also has certain limitations. Firstly, it is prone to inflating the risk in cases of popular legal brands that are imported into the country in legitimate ways – by frequent cross-border travellers or tourists. This is particularly true for regions bordering countries with lower prices of tobacco products or major tourist destinations and it might be hard to distinguish, whether the market share of a particular brand is a result of organized smuggling or just a side effect of consumer preferences. In this case, the analysis needs to account also for the origin of the non-domestic brands registered by the

Table 6. Potential local privileged criminal actors in Italy based on SDI and EPS

C	ATANIA, 2016		PALERMO, 2016			
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI	
PINE	47.62%	100	PINE	33.23%	100	
MARLBORO	9.52%	100	ORIS	14.77%	100	
AMERICAN LEGEND	4.76%	∞	EGINA	12.92%	100	
ORIS	4.76%	∞	BUSINESS ROYALS	7.08%	100	
REGINA	4.76%	∞	MARLBORO	4.00%	100	
NAPLES, 2016			MILAN, 2016			
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI	
REGINA	24.90%	100	MARLBORO	36.41%	100	
MARLBORO	13.15%	100	WINSTON	11.52%	100	
MARBLE	9.31%	100	L&M	7.37%	100	
GOLD MOUNT	7.85%	100	CHESTERFIELD	6.91%	100	
WINSTON	4.60%	100	REGINA	5.99%	100	
	TURIN, 2016			TRIEST, 2016		
Top 5 brands	Share of all illicit cigarettes	SDI	Top 5 brands	Share of all illicit cigarettes	SDI	
REGINA	31.05%	100	MARLBORO	30.44%	100	
MARLBORO	18.93%	100	WINSTON	13.84%	100	
WINSTON	11.21%	100	CHESTERFIELD	12.92%	100	
CHESTERFIELD	9.49%	100	CAMEL	7.38%	100	
MARBLE	5.17%	100	L&M	5.54%	100	

Source: CSD calculations based on EPS and Customs and Monopolies Agency seizure data.

EPS surveys and in this respect the new track and trace mechanism introduced with the most recent EU *Tobacco Products Directive* is expected to significantly improve the traceability of tobacco products.

Secondly, the suggested method may underestimate the presence of privileged market actors in cases where the criminal network deliberately diversifies the

Table 7. Potential local privileged criminal actors in Greece based on SDI and EPS

IC	DANNIA, 2016		IRAKLION, 2016			
Top 5	Share of all illicit cigarettes	SDI	Top 5 Iraklion	Share of all illicit cigarettes	SDI	
GR	23.93%	100	GR	17.56%	100	
COOPER	11.34%	9	MARLBORO	13.25%	2	
ROYAL	10.08%	1	COOPER	12.26%	9	
MARLBORO	8.82%	2	ROYAL	9.28%	1	
BON	3.78%	100	RAQUEL	6.63%	1	

VOLOS, 2016						
Top 5 Volos	Share of all illicit cigarettes	SDI				
GR	15.63%	100				
GOLD MOUNT	11.46%	100				
COOPER	9.38%	9				
ROYAL	6.25%	1				
PRESIDENT	6.25%	1				

Source: CSD calculations based on EPS and police and customs seizures data.

illegally traded brands or changes them on a regular basis. Thus, a given criminal network may trade in two or more different brands that taken separately would not hold a significant market share, but when considered together would appear as dominating the local market. Such examples have been provided for Bulgaria and may indicate an unintended consequence of the efforts from the industry and the public institutions to closely monitor the illicit market. Thus, some Bulgarian experts opined that after the wide recognition of the EPS results, organised crime groups are shifting attention to localities not covered by EPS, as well as to wider diversification of illicit brands. The only way to control for such underestimation is through triangulation of the SDI results with police and customs intelligence data.

Thirdly, assessment should account for the size of seized quantities of cigarettes from the respective brand. In a situation where the percentage of illicit tobacco drops to less than 7-8% of overall tobacco consumption, as in the period after 2016 in Bulgaria, the implementation of SDI especially for less widespread brands is problematic. Therefore, the method was implemented in Bulgaria on data from 2015.

POLICY RECOMMENDATIONS

The threats and vulnerabilities of the tobacco sector in the four countries identified in this report are quite diverse and derive from different causal factors – from overall legal and institutional environment to tobacco sector specifics and presence of organised crime. Moreover, many of these factors are in a constant and complex interplay. Careful and thorough assessment of these factors is a necessary prerequisite for designing proper strategy to tackle ITTP on national and regional level, since only a comprehensive approach can guarantee clear and sustainable results.

The current analysis for the first time **cross-compares two large datasets on illicit tobacco – EPS data** collected by tobacco companies and **seizure data** collected by police and customs authorities. As a result of the comparison and analysis, two sets of innovative instruments were developed to assess the role of two very important factors – police performance and use of corruption:

- · an index of police effectiveness in seizing illicit cigarettes;
- an integrated model for illicit tobacco market assessment.

These instruments demonstrate the potential for a more comprehensive assessment of police performance, despite the constraints imposed by the lack or insufficiency of various types of data at sub-national level.

Identifying vulnerabilities to corruption in law enforcement and the potential presence of privileged actors at local illicit tobacco markets can be done by using the **seizures deviations index** (SDI) outlined above. SDI red-flags potential corruption practices and is a good example of how data on police seizures collected in previous years along with EPS data can be used to support the processes of decision-making in law enforcement and revenue administration.

The piloting of the instruments in four EU countries – Bulgaria, Italy, Greece and Romania – indicated that these measurement methods provide a whole new range of opportunities to improve counteraction of the illicit cigarette market and corrupt practices related to it. To capitalise on these new tools and the preliminary results from their piloting, policy actions are required in the following areas:

• Introduction and systematic application of objective quantitative indicators for assessment of the effectiveness of law enforcement against the illicit tobacco trade on regional level.

The currently utilised indicators of police and customs performance such as quantity of seized cigarettes and number of established perpetrators do not provide a measure for the actual impact on the illicit tobacco market at regional level. Introduction of the index of police effectiveness in seizing illicit cigarettes

would provide for objective assessment of police performance and its impact on the illicit tobacco market on regional level. Using the index in combination with the integrated model for ITTP market assessment would additionally allow to take into account the broader context and how it affects the outcomes of police counteraction.

The application of the cigarette seizures deviations index, on the other hand, should be used as an indicator of potential vulnerability in regional police forces – it flags up the risk that law enforcement powers could have been used in a particularistic way to selectively suppress certain market players, while having lenient approach to others. The two new indices are a good example of how data on police seizures along with EPS data can be used to support the processes of decision-making in law enforcement and revenue administration. The SDI can be used jointly with the index of police effectiveness in seizing illicit cigarettes in order to better prioritize and distribute resources among regional directorates or provide additional support from the headquarters. Furthermore, the method for identifying the potential presence of privileged actors in local illegal markets can be used for corruption prevention in law enforcement and revenue agencies.

Planning comprehensive illicit market response measures at regional level.

The pilot implementation of the police effectiveness index and the integrated model demonstrates that it is not feasible to suppress the illicit tobacco market only with regional-level measures for improving the operation of police and customs services. Some of the regional directorates would benefit from an increase in their workforce or improvement of their internal organisation. However, other factors such as levels of overall economic development, levels of grey economy practices and high-volume crime should also be addressed. The integrated model could also be used to identify regions to be prioritised and targeted by the national institutions.

 The tobacco companies should start sharing with the public institutions the complete EPS regional datasets on the presence and market share of nondomestic cigarette brands.

The regional analysis of brands data can become an additional efficient tool to prioritise and focus institutional efforts. Timely access to the brands data can significantly help in identifying active criminal groups in each region and, respectively, in the efficiently and timely uncovering of illicit supply and distribution channels, thus aiding police investigation. Furthermore, systematic comparison of EPS data with police and customs seizures provides the opportunity to discern symptoms of arising illicit manufacturing or illicit tobacco channels in or through the country at an early stage.

• Data collection on seizures of illicit cigarettes should be conducted in a more comprehensive way.

The most significant constraint for the introduction of more objective assessment of institutional response to the illicit tobacco is the availability of homogeneous and comprehensive data regarding the market. Further improvements in the data

collection by public institutions at the regional level would allow for additional elaboration and refining of the suggested new assessment instruments and would make the assessments more reliable.

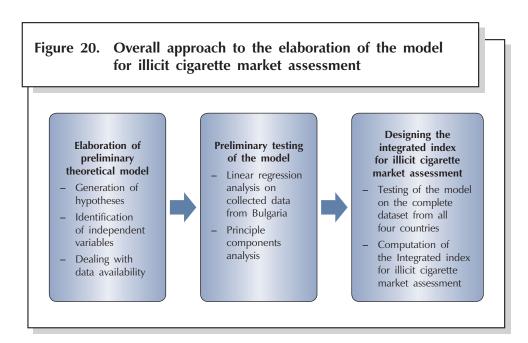
To further refine and validate the instruments, additional data would need to be collected at regional level by both regional police directorates and the customs authorities. Regional police directorates could collect and provide data on the number of police officers involved in countering ITTP and on the available technical equipment. Law enforcement and revenue authorities should consider more detailed recording of seized illicit cigarettes that would allow not only to record the quantities, but also for each seizure to register the brands of seized cigarettes, exact time and location of seizure and institution responsible for the seizure.

The data from the recently introduced track and trace system should be integrated into police and customs seizure data in order to provide more accurate information on the origin of the confiscated cigarettes.

ANNEX I. METHODOLOGY OF THE MODEL FOR ILLICIT CIGARETTE MARKET ASSESSMENT

General methodological considerations

The EPS survey¹²⁰ allows to measure the share of the so called non-domestic cigarettes out of all cigarette consumed in a given country or region. The share of this non-domestic consumption is used as an indicator of ITTP in the country. The level of illicit tobacco consumption, however, is influenced by a plethora of factors, including a number of socio-economic ones. Even when law enforcement agencies' (LEAs) performance is satisfactory, other unrelated factors might result in the increase of illicit tobacco consumption levels registered through EPS. In order to assess the effect LEAs have on ITTP, a more comprehensive model of the drivers of the illicit tobacco market is needed.



The effect LEAs have on the illicit tobacco market is in theory achieved through **policing**. Policing of this criminal market involves two main interventions: investigation and apprehension of perpetrators, and seizing of illicit cigarettes. The first assumption is that by virtue of apprehending offenders, LEAs disturb the supply chain and thus limit the capacity of criminal networks to maintain a steady supply of illicit cigarettes. The second assumption is made regarding the seizures of illicit products –

¹²⁰ EPS data was available only for Bulgaria, Greece and Italy. In Romania, EPS was deemed an unsuitable instrument due to the large share of rural population, which hinders the collection of discarded packs. Instead, a somewhat similar survey method based on household population survey using pack swap was used in Romania.

the more cigarettes are seized by the authorities, the lesser amount of the product remains in the illicit supply chains and the less profitable the operation becomes. This causation could lead to either a decline of profit margins or increase of prices for the end-users, which ultimately also leads to shrinking of the illicit market.

Apart from policing, the actions of many other institutions as well as the general socio-economic context variables also impact the volume and trends in illicit tobacco sales. In order to assess the extent of differences in performance of regional directories, a comprehensive model of illicit tobacco trade is conceived, tested empirically and put forward.

A comprehensive model of ITTP

The initial concept of the model was designed to test the following hypotheses:

- Hypothesis 1: policing (arresting perpetrators and seizing illicit cigarettes) has a direct suppressing effect on the illicit tobacco market.
- Hypothesis 2: administrative control exercised by customs authorities through inspections, imposition of administrative penalty decrees and seizure of illicit cigarettes suppresses ITTP.
- Hypothesis 3: the high levels of criminal activity in a given region are conducive to a bigger supply of illicit tobacco products (bigger pool of potential recruits/ actors for organising ITTP).
- **Hypothesis 3.1:** particular types of crimes (e.g. recorded excise crimes) are better predictors than others.
- **Hypothesis 4:** higher number of tourists in a given region will result in higher levels of consumption of non-domestic cigarettes.
- **Hypothesis 5:** the standard of living (e.g. levels of employment, average wage or GDP/capita) directly reflects on affordability of tobacco products and thus impacts on levels of ITTP consumption.
- Hypothesis 6: geographical proximity of a given region to a country with lower prices of tobacco products will result in higher levels of non-domestic cigarettes consumption.

Sources of data, initial calculations and limitations of the model

The data collection exercise performed in all four countries subject of the current research established that the most comprehensive dataset of indicators existed only in Bulgaria. Full datasets on seizures of illicit tobacco from the Bulgarian General Directorate National Police were available for the period between 2012 and 2017 at the NUTS3 level. Customs seizures data were aggregated at the level of custom offices, each of which covers between two and six NUTS3 regions in Bulgaria. In order to correlate data at regional level, other socio-economic and resource/activity indicators from national statistic services¹²¹ in the four countries and law enforcement authorities were also used.¹²²

¹²¹ Number of nights spent by foreigners per region, average annual wage for the region/county.

¹²² Number of recorded crimes per region, number of police personnel per region at the beginning of each year, indicators of customs surveillance and control. Greek and Italian authorities did not disclose information on number of police/customs personnel at regional level, since this data was treated as classified.

The calculation of the law enforcement authorities' effectiveness in seizing illicit cigarettes involved three steps. The first step was to establish the total number of cigarettes consumed annually in each county by region. The data used in calculating the indicator were derived from EPS, demographics and police statistics, all publicly accessible. The first step towards forming the index was to overcome the significant demographic and consumption variations among regions. For this purpose, data from national statistics about the population in each region were used. The average annual number of consumed cigarettes on regional level was calculated based on the data about smoking prevalence and intensity in the 2017 study of Eurobarometer.¹²³ The second step was to estimate the number of cigarettes not intended for the national market consumed in the course of the year in each region. EPS data for the respective year was used, subtracting the number of illicit cigarettes from the total number of consumed cigarettes. For example, in Romania following the described calculation steps, an average of 4,118,418 smokers were established at national level. Broken down by counties, with an average daily consumption of 16.6 cigarette sticks, the calculations suggested a total consumption (domestic and non-domestic) of 24,611,662,980 sticks nationwide for 2016. With a non-domestic incidence calculated from the EPS dataset of 11.85% for 2016, this would result in 2,917,256,666 overall illicit cigarettes' consumption. The third and last step was to determine the percentage of illegal cigarettes seized during the respective year by each of the regional structures of the respective law enforcement agency compared to the overall number of consumed illicit cigarettes in region.

The rest of the indicators – police force in the region, number of nights spent by foreign tourists, recorded crimes against property, penal decrees issued by the customs authorities in the region – were obtained directly from the respective institutions (law enforcement or customs). The indicators were then weighted against the size of the official population in each region.

The biggest impediment to constructing the ITTP model as well as the indicator on the effectiveness of LEAs was the lack of data or/and incongruous aggregation of the data in the four countries and across the different institutions. In addition, there were lots of missing data. For example, there were no recent data on the average wage at regional level for Greece (only 2014 and 2015); police authorities both in Greece and Italy did not disclose information about the number of police officers at regional level; the customs authorities both in Greece and Romania did not have data on penal decrees related to ITTP disaggregated by region. Another problem that arises from the lack of data is the imbalance between countries of available data points¹²⁴ for each of the factors tested in the model. Thus, the Bulgarian dataset comprises of 168 data points, the Romanian – 210 data points, the Greek – 65 and the Italian – 60. The outlined limitations to some extent diminish the explanatory power of the model and pose certain limitations on its final validation.

¹²³ Special Eurobarometer 458: Attitudes of Europeans towards tobacco and electronic cigarettes. 2017. DG SANTE & DG COMM.

¹²⁴ Here, "data points" is used as a discrete unit of information (statistical indicator) available on regional level for the period 2012 – 2017. Thus, data points for Bulgaria can be calculated as 28 regions multiplied by six years, which equals 168.

Since Bulgaria had the fullest and comprehensive pool of potential indicators which could be entered and tested empirically in an ITTP model, the initial statistical analysis was performed only with the Bulgarian dataset. This approach also had its limitations, since in this way country specific factors that may have a significant impact on the level of non-domestic cigarettes in some of the other three countries and not in Bulgaria, have been omitted and subsequently not included in the final ITTP model.

Preliminary empirical testing of the model in Bulgaria

Linear regression analysis was used to test the link between different factors or drivers (independent variables) and the illicit tobacco levels as reported in the EPS (dependent variable). The available sets of data for Bulgaria at NUTS3 level for 2012, 2013, 2014, 2015, 2016, and 2017 provided for a total of 168 cases (six years multiplied by 28 NUTS3 regions), which were entered for regression analysis. Prior to performing the regression analysis, data normalisation was applied using the Min-Max method. The regional indicators were tested in several regression models. Because of multicollinearity some indicators were subsequently removed from the model (e.g. most of the crime variables strongly correlated between each other), and only the variables with best predicting power were kept.

Table 8. Detailed results for each of the tested primary regional indicators

Code	Name	Outcome of the regression analysis	Included
DV	Share of non-domestic cigarettes from total sample (EPS data, dependent variable)	Dependent variable: illicit tobacco level (ITL), %	Yes
v1	Seized cigarettes by the police out of the total estimated illegal cigarettes on the market (ratio)	Significant inverse correlation (the higher the ratio of seized cigarettes/total illegal cigarettes, the lower the ITL).	Yes
v3	Police officers per capita	Significant negative link (the higher the number of police officers per capita, the lower the ITL).	Yes
v4	Nights spent by foreign citizens per capita	Significant negative link (the higher the number of nights per capita, the lower the ITL).	Yes
v7	Average annual wages	Strong negative link (the higher the wages, the lower the ITL).	Yes
v13	Recorded crimes against property per capita	Strong positive link (the higher the number of property crimes registered by the police, the higher the ITL).	Yes

Table 8. Detailed results for each of the tested primary regional indicators (continued)

Code	Name	Outcome of the regression analysis	Included
v26	Administrative penalty decrees imposed by customs authorities per capita	Strong positive link (the higher the number of penalty decrees per capita, the higher the ITL).	Yes
v18	Hooliganism (<i>Criminal Code</i> Article 325) per capita	Significant inverse correlation (the higher the number of recorded cases per capita, the lower the ITL).	No
v21	Recorded cases of excise crimes (Article 234) per capita	Missing data (data available only for 2017), not significant (probably because of the missing data)	No
v19	% of solved cases related to excise crimes (Article 234)	Missing data (data available only for 2017), not significant (probably because of the missing data)	No
v20	The ratio of the number of dealers arrested under Article 234 to an expert estimate of the total number of dealers	Not significant; multicollinearity problems (correlated with v19)	No
v23	Customs: ratio of administrative penalties to inspections	Not significant; multicollinearity problems (correlated with v25, v26)	No
v24	Seized cigarettes by the customs out of the total estimated illegal cigarettes (ratio)	Not significant	No
v25	Inspections done by the customs per capita	Not significant; multicollinearity problems (correlated with v23, v26)	No
v10	Total recorded crimes per capita	Not significant; multicollinearity problems (correlated with other number of crime indicators)	No
v11	Crimes against the person (articles 115 – 159) per capita	Not significant; multicollinearity problems (correlated with other number of crime indicators)	No
v12	Murder (Article 115-127) per capita	Multicollinearity problems (correlated with other number of crime indicators)	No
v14	Other types of crimes (articles 330-356; 242, 250, 253, 270, 282) per capita	Not significant; multicollinearity problems (correlated with other crime indicators)	No
v15	Car thefts per capita	Multicollinearity problems (correlated with other crime indicators)	No

Table 8. Detailed results for each of the tested primary regional indicators (continued)

Code	Name	Outcome of the regression analysis	Included
f16	Drug related crimes per capita	Not significant; multicollinearity problems (correlated with other crime indicators)	No
v17	Arson (Article 330-333) per capita	Not significant; multicollinearity problems (correlated with other crime indicators)	No
ν8	Unemployment rate	Not significant	No
v9	GDP per capita in BGN	Multicollinearity problems (correlated with v7)	No
v5	Minority population at risk (share of the whole 16+ population)	Not significant	No
v6	Bordering risk country (region which is near the border with other countries with lower prices of tobacco products)	Not significant	No
v2	Risk region (expert assessment based on whether the region is bordering a country with lower prices of cigarettes), binary	Not significant	No

The results from the regression analyses demonstrated the following:

- (1) The expected negative link between policing and ITTP was confirmed, but only for **seizing illicit cigarettes**. The indicators related to **investigation and apprehension of perpetrators** (v19, v20) did not have significant impact on illicit tobacco levels.
- (2) The hypothesis for a suppressing impact of the **customs authority control over ITTP** was rejected. Neither the number of inspections, nor the seized illicit cigarettes had any significant effect on the levels of non-domestic cigarettes in a given region. On the contrary, the number of issued administrative penalty decrees by customs authorities had a strong positive link with higher level of ITTP products. Apparently, this variable rather captures the levels of undeclared economy and tax evasion in a region.
- (3) The impact of the **crime recorded by the police** on ITTP was partially confirmed. Although, most variables related to recorded cases of different types of crime did not show significant effect on levels of ITTP, two types of crimes (recorded property crime and hooliganism) did had a significant positive impact. Hooliganism crimes had a weak but significant negative link with ITL, however this is difficult to interpret from a theoretical point of view how registering hooligans (a petty crime typically not leading to incarceration) could suppress the ITTP; it was, therefore, regarded as an artifact. Therefore, only recorded property crime was preserved in the final model.

Table 9. The final regression model of illicit tobacco trade based on Bulgarian data

			Adjusted	Std. Error of	Change Statistics				
Model	R	R Square	R Square	the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	0.601a	0.361	0.338	0.10	0.361	15.186	6	161	0.000
a. Predicto	ors: (Consta	nt), v26 v13	, v1, v3, v7,	v4					
			dardized icients	Standardized Coefficients	t	Sig.	Collinea Statist		Group of indicators
		В	Std. Error	Beta			Tolerance	VIF	
(Constant)		0.17	0.025		6.606	0.000			
v1 Seized by the po out of the estimated cigarettes the marke	lice total illegal on	-0.56	0.277	-0.13	-2.006	0.047	0.913	1.096	index 1
v3 Police per capita		-0.08	0.034	-0.15	-2.233	0.027	0.864	1.158	index 2
v4 Nights by foreign per capita	citizens	-0.14	0.046	-0.21	-2.957	0.004	0.809	1.237	index 3
v7 Average wages	e annual	-0.33	0.054	-0.42	-6.158	0.000	0.847	1.180	
v13 Record crimes aga property per capita	ainst	0.22	0.042	0.39	5.315	0.000	0.735	1.360	index 4
v26 Issued nistrative p decrees by authorities per capita	penalty y customs	0.15	0.036	0.29	4.278	0.000	0.882	1.133	

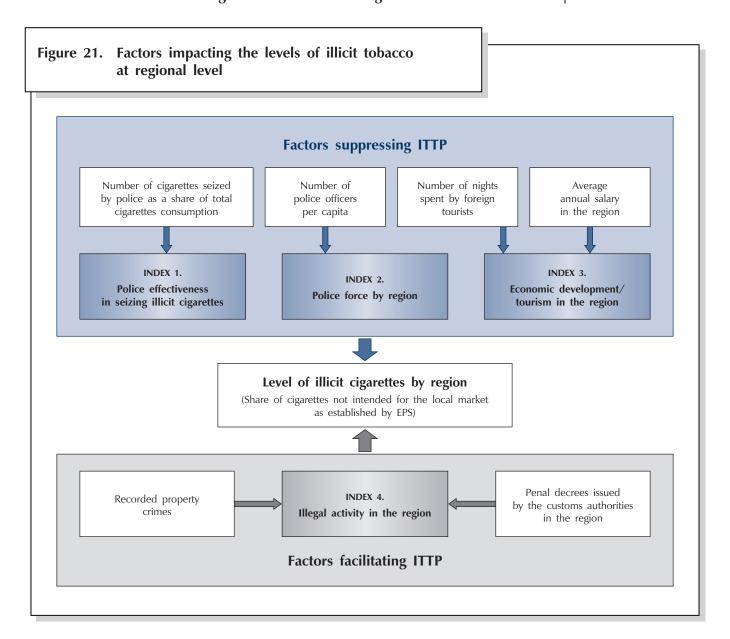
Dependent Variable: Share of non-domestic cigarettes from total sample (EPS data).

- (4) The **affordability** hypothesis was confirmed with a strong negative link regions with higher economic development and respective higher wages had lower levels of ITTP an effect which reflects the higher affordability of licit cigarettes from the domestic market (and vice versa lower demand for cheaper non-domestic cigarettes).
- (5) The **number of tourists** had a statistically significant effect on share of non-domestic cigarettes on regional level, but the link between the nights spent and the ITTP levels contradicted the initial hypothesis (i.e. the more tourists visit a region, the higher the levels of non-domestic cigarette consumption will be). The negative link between tourism and ITTP levels rather reflects economic development of the region popular tourist destinations are typically

- more developed, especially in a country like Bulgaria, which relies a lot on tourism (10-12% of the GDP in recent years).¹²⁵
- (6) The hypotheses for **geographical proximity** (risk region) and share of population at risk were not confirmed.

The final model consisted of six primary variables which were further subjected to principal components analysis and finally grouped in four main factors.

Using the four factors, an integrated index of the illegal tobacco market was composed, which comprises of four indices (see Figure 21 for the full model). The integrated index for illicit cigarette market assessment represents the combined



Knoema, Bulgaria – Contribution of travel and tourism to GDP as a share of GDP: https://knoema.com/atlas/Bulgaria/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP

effect of the four indicators for a given region. Therefore, when assessing regional LEA performance and ranking them according to the **police effectiveness in seizing illegal cigarettes** index, the **integrated index** could also be considered and accounted for in order to assess the broader context of the LEA performance.

Testing of the model for all four countries

The model described above was finally tested on the overall dataset containing the regional data collected from all four countries. The linear regression analysis demonstrated that all but one factors had a significant effect on the share of non-domestic cigarettes on regional level. The only exception was the police officers per capita factor, which could not reach significance. However, the factor was left in the final model¹²⁶ for theoretical completeness,¹²⁷ since data on police officers per capita by region were available only for Bulgaria and Romania and country-specific differences might explain why this factor is significant for Bulgaria, but not for Romania in this case.

Table 10. The full regression model of illicit tobacco trade based on data from the four countries

	Std. Error		Std. Error	Change Statistics					
Model	Model R R Adjusted of the Square Stimate	R Square Change	F Change	df1	df2	Sig. F Change			
1	0.440a	0.193	0.174	11.10344%	0.193	9.784	6	245	0.000
a. Predictors: (Constant), v26 v13, v1, v3, v7, v4									
			Unstanda Coeffic		Standardized Coefficients		c:-		
		В	Std. Error	Beta	t	Sig.			
(Constant)			9.883	1.941		5.091	0.000		
v1 Seized cigarettes by the police out of the total estimated illegal cigarettes on the market (ratio)			-12.619	3.752	-0.202**	-3.363	0.001		
v3 Police	officers	per capita	a		-3.145	2.664	-0.071	-1.180	0.239
v4 Nights	s spent b	y foreign	citizens per	capita	-10.632	3.540	-0.199**	-3.003	0.003
v7 Averaş	ge annua	l wages			-12.638		-0.215**		
v13 Reco	rded crir	nes agains	st property	per capita	16.581		0.308**		
v26 Issued administrative penalty decrees by customs authorities per capita		8.036		0.197**					

Dependent Variable: Share of non-domestic cigarettes from the total sample (EPS data); ** significant at the level of p<0.01.

¹²⁶ A model without f3 "police officers per capita" was also tested for the combined data from four countries and all remaining factors were still significant.

¹²⁷ The factor had a very small weight of 0.012, which practically renders its influence insignificant.

Calculation of the four indices and the integrated index

The four indexes are computed as the weighted mean, where weights reflect relative importance derived from the standardized beta (see Table 10). Similarly, the **integrated index for illicit cigarette market assessment** is computed as the weighted mean of the four indexes with weights derived from a regression model with the four indexes as independent variables and the share of non-domestic cigarettes from total sample as a dependent variable. All indexes and the integrated index assign a score on a scale from 0 to 100 to each region in the country.

Table 11. Relative weights applied for the calculation of the four indices and the integrated index

Indicator	Weight	Level of computation		
v4 Nights spent by foreign citizens per capita	-0.20	Computation of the four indexes		
v7 Average annual wages	-0.22			
v13 Recorded crimes against property per capita	0.31			
v26 Issued administrative penalty decrees by customs authorities per capita	0.20			
Index1 Police effectiveness in confiscating illegal cigarettes	-0.213	Computation of		
Index2 Police force strength	0.012	the integrated index		
Index3 Economic development of the region	-0.261			
Index4 Criminal activity of networks related to illegal cigarettes	0.185			

The integrated index for illicit cigarette market assessment can be computed even when some of the components are missing. In this case, the integrated index is computed as the weighted mean of the remaining indicators with the divisor¹²⁸ remaining always the same regardless of whether all four components are present or fewer. Admittedly, this diminishes its predictive power for the respective country/region.

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¹²⁸ The divisor is equal to the sum of the four indices weights multiplied by -1/0.28.

ANNEX II. METHODOLOGY OF THE CIGARETTE BRANDS SEIZURES DEVIATIONS INDEX

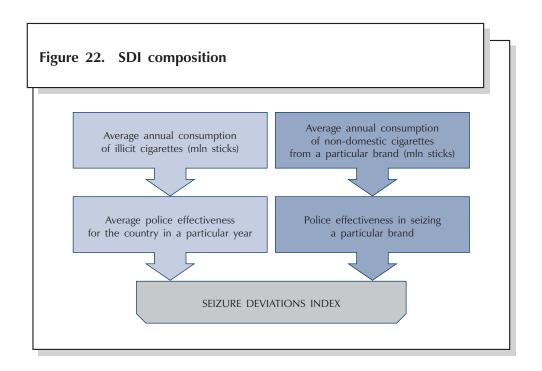
Background and rationale

The prioritization of fight against ITTP both on EU level and in the member states in the last years has significantly increased the data available for this illegal market. Both customs and law enforcement authorities have started to systematically collect and analyse information on illicit flows, number of seizures, perpetrators and so on. The suggested methodology and the cigarette brands seizure deviation index (SDI) draw particularly on the information available for the brands of illicit cigarettes that have been seized by law enforcement and customs authorities. They provide an innovative way of comparing that information with the data on non-domestic brands collected within the EPS surveys commissioned on regular basis by tobacco industry. The datasets were requested and subsequently granted by the national authorities tasked with countering ITTP in Bulgaria, Greece and Italy, as well as the tobacco industry. Seizure data disaggregated by brands is not collected by Romanian law enforcement authorities and therefore the country was not included in the analysis.

The rationale behind the SDI is that law enforcement and customs authorities are expected to identify and seize all brands of illicit cigarettes consumed in the country with similar success rate on an average base. Consumption of particular non-domestic brands which are not seized at all or seized at a significantly lower rate than the average performance of the authorities indicates an anomaly. The suggested method allows for detection of inconsistencies in the seizures of particular brands of illicit cigarettes by law enforcement and customs authorities in particular regions of a country. Thus, it could serve as an instrument for red-flagging potential risks of corruption in regional law enforcement divisions, especially if the instrument is applied on a regular basis to capture trends.

Calculation of the SDI

The calculation of the index generally follows five steps (Figure 22).



Estimation of the average annual consumption of illicit cigarettes

The first step involves establishing the **average annual consumption of illicit cigarettes in each country**. The overall cigarette consumption (**OC**) in each country can be calculated for population aged 16 and over in a country (**P**) for a given period, smoking prevalence (SP) and average daily consumption (**DC**) as per Eurobarometer data¹²⁹ (OC = P x SP x DC). The overall illicit cigarette consumption (OIC) can be estimated drawing on the incidence of non-domestic cigarettes (IND)¹³⁰ and the overall annual cigarette consumption (OC) in the same country (OIC = IND x OC). For example, an average of 4,118,418 smokers were established at the national level in Romania by following these calculation steps. According to most recent Eurobarometer data the average daily consumption of Romanian nationals is 16.6 cigarette sticks. Thus, the calculations suggest an overall average annual consumption of 24,611,662,980 sticks nationwide for 2016. With a non-domestic incidence calculated from the EPS dataset of 11.85% for 2016, this would result in 2,917,256,666 overall illicit cigarettes' consumption.

Determining the average annual consumption of non-domestic cigarettes of a particular brand

The second step is to calculate the incidence rate of each non-domestic brand from (IND $_n$) the total non-domestic cigarette packs listed in the EPS dataset for each country on annual basis. This allows to calculate the illicit consumption of each particular non-domestic brand (IC $_b$) in the country on annual basis (IC $_b$ = IND $_n$ x OIC).

¹²⁹ Special Eurobarometer 458: Attitudes of Europeans towards tobacco and electronic cigarettes. 2017. DG SANTE & DG COMM. The estimate is based on the % of smokers in a country (Eurobarometer data) and on the number of cigarettes they report smoking daily.

¹³⁰ Data on share of non-domestic cigarettes available in annual SUN Reports, Appendices – EPS results by country.

Calculation of the average police/customs effectiveness for a country in a particular year

The third step is to calculate the police effectiveness (Eff) in seizing illicit cigarettes in a particular year for the same country. The effectiveness is calculated as a ratio between the number of illicit cigarettes seized (Sz) by the police authorities in a given year and the already estimated overall illicit cigarettes' consumption (OIC) in the first step. This allows to establish the success rate of police/customs seizures when compared to the overall number of non-domestic cigarettes consumed (Eff = Sz/OIC).

Table 12. Score of the index of police effectiveness in seizing illegal cigarettes, Bulgaria

Year	2015	2016	2017
EPS domestic brands cigarettes (cuts)	209,405	225,234	239,149
EPS non-domestic brands cigarettes (cuts)	31,500	20,755	20,770
EPS total sample (cuts)	240,905	245,989	259,919
Share of non-domestic in EPS sample, %	13.1%	8.4%	8.0%
Estimation of non-domestic cigarettes consumed (cuts)	1,739,273,556	999,104,304	948,107,104
Seized cigarettes by the police from all brands (cuts)	70,325,092	83,275,039	22,215,926
Seized cigarettes by the police from all brands – outliers in seizures (cuts)	12,576,724	12,756,656	7,761,620
Average effectiveness of police in seizing illegal cigarettes	0.7%	1.3%	0.8%

Source: CSD elaboration based on EPS data for Bulgaria.

Computing the police/customs effectiveness in seizing a particular brand

The fourth step is to compute the police effectiveness in seizing a particular brand. The indicator is calculated as a ratio between the number of cigarettes of a particular brand seized by the police (Sz_n) and the already estimated average annual consumption of non-domestic cigarettes of the same brand (IC_b) from second step. This allows to establish the success rate of police/customs in seizing a particular brand when compared to the overall number of non-domestic cigarettes of this brand that are consumed $(Eff_n = Sz_n/IC_n)$.

Seizures deviations index

The last step is to calculate the cigarette brands seizures deviations index (SDI_n) for each of the non-domestic brands identified in the annual EPS survey. The

index is calculated as a ratio between the average police/customs effectiveness (Eff) from third step and the police/customs effectiveness in seizing a particular brand (Eff_n) from the fourth step. Thus, the SDI measures the actual success rate of police/customs authorities in seizing particular brand, when compared to their average success rate in a given year (SDI_n = Eff/Eff_n). If the result is below 1, the effectiveness of the police/customs for this brand is better than the average. If it is above 1, it is worse than average. If it is substantially higher than 1, then the efficiency for this particular brand is suspiciously lower than average – the seizures lack consistency. For example, if SDI is 5, this means that police seizures for this brand are 5 times lower than the country average rate of seizures for this country/year.

SDI assigns a score on a scale from 0 to 100 for each brand registered by EPS surveys in the country. In case there were no seizures of a particular brand by police, SDI cannot be calculated¹³¹ and therefore equals 100. Similarly, all SDI scores bigger than 100 also equal 100. Once the SDI index for each brand is calculated, this allows not only to rank high-risk brands on national and regional level, but also to establish whether a particular high-risk brand is concentrated in a specific region. If high-risk brands are concentrated in a particular region/city, this indicates potential corruption risk.

Example

In a hypothetical case, on average the authorities in country A seized 10% of the total number of illegal cigarettes in 2017. Now, we can compare police effectiveness in seizing each of the brands to the average for the country A in 2017 (10% in this example). Assuming that exactly 10% of the illegal cuts from brand X were seized – this would be the same as the average for the country. For Brand Y – 15% of the illegal cuts were seized – even better than the average. But for Brand Z only 1% of the illegal cuts were seized by the police. This is 10 times (10%/1%) less than the average for country A in 2017 – a suspiciously low effectiveness of the authorities in the case of brand Z. SDI is the ratio between the total country effectiveness and the brand effectiveness, or in this example: SDI = 10.

This national-level analysis helps list outlier brands which were seized much less than the average for the country. If these brands were concentrated in a particular region or set of regions, this might indicate a well-developed route of trafficking of this particular brand which remains "under the radar" of the authorities. When a substantially low level of seizures for a particular brand (at least 10 times lower than average) is coupled with a dominant share of the brand at the illegal cigarettes market in a given location, this is assumed as indicative for potential corruption practices.

Data availability, limitations and constraints

The data collection exercise performed in all four countries subject of the current research, established that all countries except Romania have data that is disaggregated by type of brands of illicit cigarettes seized. Romanian authorities

¹³¹ Division by zero is not a valid mathematical operation.

apparently do not collect data on seized brands of illicit cigarettes on national level. Full datasets on seizures of illicit cigarettes by brands were provided by the Bulgarian General Directorate National Police, the Italian Customs and Monopolies Agency and the Greek Coordination Center to Combat Smuggling for the period between 2012 and 2017. The biggest limitation when constructing the pilot index was the lack of data or/and incongruous aggregation of the data in the four countries and across the different institutions. Thus, for example, the brands seizure data for Italy and Greece is not disaggregated by law enforcement authority – it is a combined data for illicit cigarettes seizure by both law enforcement and customs authorities.

Another important limitation stems from the fact that EPS is a sample-based study. Therefore, small numbers for particular brands could be overestimated when converted to real quantities. Thus, 1 pack in EPS could correspond to thousands of packs in reality. For example, in the Bulgarian case in 2015 – 1 pack of cigarettes in EPS corresponds to 2,761 packs, when overall consumption is taken into account. However, if this 1 pack was accidentally discovered in EPS and was actually an isolated case, the estimate for the real number would be highly overestimated. For this purpose, the SDI analysis focuses on non-domestic brands which are found in larger quantities in the EPS. Only brands where at least 10 packs¹³² have been identified in the EPS sample (for Italy 20 packs) were included in the analysis, since this was deemed as a minimum quantity that could hardly be attributed to a randomly discarded pack of cigarettes.

¹³² The number was eventually adjusted for Bulgaria and Italy in order to account for data availability (in Italy brands of illicit cigarettes with less than 20 packs in the overall police/customs authorities' seizures were not recorded) or expert opinion (in Bulgaria).

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