



Controlling Illicit Tobacco Trade: International Experience

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Introduction

This report presents a series of case studies on the efforts of various governments to address illicit trade in tobacco. The countries for the case studies were selected based on meeting the following set of criteria:

- an explicit, and in many cases a comprehensive, effort to deal with tobacco tax evasion and tax avoidance;
- the size of the tobacco market (both licit and illicit);
- the availability of data

The case studies illustrate a variety of approaches implemented over time, demonstrate their varying degree of effectiveness, and consider factors modifying the success rate. Each case study begins with an initial assessment of the degree of the problem and then follows the chronological path each government took to deal with the problem. To the extent that the data is available, the case studies demonstrate the impact of each distinct set of policies on a set of outcomes, including the degree of penetration of illicit products and tobacco use prevalence.

In many cases, these illicit tobacco trade measures were not adopted in isolation, but were part of a comprehensive set of strategies to reduce tobacco use. Thus, it is often not possible to separate the impact of policies addressing illicit tobacco trade from other public health measures such as increases in tobacco taxes and/or changes in tobacco tax structure.

The summary table at the end of the report provides a quick overview of measures to reduce illicit tobacco trade adopted by the countries included in the case studies. Even though the list of measures included in the summary table is not comprehensive, it captures the most common interventions adopted or considered by many governments.

The last section summarizes the lessons learned and proposes the most effective approach to reducing illicit tobacco trade.

Case Studies

Brazil

Brazil has been successful in reducing tobacco consumption, including illegal consumption. This was done with a combination of legislation and technology.

Between 1988 and 1998, Brazil's cigarette exports increased more than 8000-fold,¹ but the majority of exported cigarettes made their way back to Brazil as contraband.² To deal with this illicit re-import, the government imposed an export tax of 150% on cigarettes sent to neighboring countries in 1999.

At the same time, the cigarette excise tax was reduced from approximately 40% of retail price to about 25% of retail price in order to stimulate the development of cheaper brands to compete with the illegal lower-priced brands.³

After these tax changes, exports of cigarettes declined rapidly, but illicit cigarette consumption did not disappear, because newly established factories in Paraguay importing tobacco leaves from Brazil fuelled the Brazilian illicit market.² To address this issue, the Brazilian government extended the export tax to tobacco leaf in 2000,⁴ but the growing tobacco industry in Paraguay began to source its tobacco from elsewhere, particularly Argentina.

Subsequent to the introduction of the Brazilian export tax, a tobacco company in Uruguay successfully sued the Brazilian government through a MERCOSUR court alleging a breach of free trade regulations in the customs union. As a result, Brazil reversed its policy of taxing tobacco exports to neighboring countries in 2003. The re-importing scheme and tobacco leaf exports to Paraguay have

not resumed, but Paraguay remains the largest illegal cigarette supplier to Brazil.⁴

From 2000 to 2006, the Brazilian government continued its low tobacco tax policy with minimum tax increases that did not even keep pace with inflation. The goal of this policy was to create competition for illicit products by motivating production and supply of cheap cigarettes. The policy failed, since the industry did not decrease their prices but benefitted from the low tax environment.³ According to the Brazilian Ministry of Finance, some 21 billion cigarettes were smuggled into Brazil in 2006 (representing a loss of revenue US\$340 million)² and an additional 16 billion cigarettes produced by small cigarette manufacturers were sold untaxed (a revenue loss of US \$280 million).⁵ The tobacco industry estimated that about 30% of total consumption in Brazil consisted of illegal cigarettes.³

By 2007, the government realized that its tax policy for fighting illegal trade had not been successful, since real excise tax revenues per pack had sharply declined. Since 2007, taxes began to increase faster than inflation, and in May 2012 the specific multiple tiers tax system was changed to a mixed system with both ad-valorem and specific components with annual inflation adjustments and a one-percentage-point-a-year increase for ad-valorem tax until it reached 9% (from the initial 6%) by 2015. Specific rates for soft and hard packages were equalized by 2015 in order to prevent tax avoidance through production of soft versions of hard packs and to reduce the gap between cheap and more expensive brands. The new tax law also established a minimum price per pack that is scheduled to increase yearly till 2015 at rates exceeding expected inflation.³

In addition to the change in tax policy, Brazil mandated licensing of its manufacturers⁵ and implemented a tracking and tracing system (Box 1) managed by SICPA in secondary processing and distribution of cigarettes and cigarillos in 2008 and 2011, respectively. Before 2008, information about domestic cigarette production and export came from companies' tax statements, which were

Box 1

Federal Law nº 11.488 (June 2007) on the track and trace system, articles 27 to 30:

- a) Cigarette manufacturers are obliged to install equipment to count output, as well as devices to control, register, record and transmit the quantities measured, in the form, conditions and time limits established by the Receita;
- b) The equipment must also enable the control and tracing of the products throughout national territory, and of the correct use of the tax stamp, for the purpose of identifying the origin and suppressing illegal production and import, as well as the commercialization of counterfeit products;
- c) The production counting equipment must be installed on all production lines at the manufacturing sites, at the place where the tax stamp is applied. The tax stamp will be produced by the Brazilian Bureau of Engraving and Printing (Federal Institution that prints money, or the Brazilian Mint) and shall contain security features approved by the Receita that also enable verification of its authenticity at the moment of application at the cigarettes manufacturers;
- d) The Brazilian Mint has the responsibility for integration, installation and preventive and corrective maintenance of the equipment at the manufacturing sites, under the supervision and accompaniment of the Receita and in observance of the security and fiscal control requirements established by it;
- e) It is the duty of the cigarette manufacturers to reimburse the Brazilian Mint for carrying out the procedures referred to above, as well as for adjustments necessary for the installation of the equipment on each production line;
- f) A fine of 100% of the commercial value of the merchandise produced may be applied if, as of the 10th (tenth) day after the deadline for the system to start operating, the equipment has not been installed because of an impediment created by the manufacturer. An impediment is deemed to be any action or omission carried out by the manufacturer that tends to impede or retard the installation of the equipment, or after its installation, that degrades its normal operation. This occurrence also characterizes an event of cancellation of the cigarette manufacturing license.

audited by the Brazilian Federal Revenue Secretariat (Receita Federal do Brasil). The new system allows Brazilian authorities to authenticate and trace tobacco products back to the point and time of manufacture by the installation of automatic cigarette production counters at each production line.⁵ Imports are not tracked since they are almost zero. In parallel with the SICPA system, the tobacco industry voluntarily implemented its own Codentify system with overt codes in 2008.⁶ The Codentify codes are printed on the packs.⁷ It is not clear how the data generated by the system are used.

The track and trace system is a part of an integrated control for cigarette production that tracks approximately 4.9 billion cigarette packs and 253 brands per year.⁸ The system combines traceability features with security markings, which discourages counterfeiting.⁹ Packs for the domestic market merge the product's bar code (using European Article Number EAN-8) with a tax stamp that has an invisible and secure 2D DataMatrix electronic code inserted during the manufacturing process at the Brazilian Mint. The tax stamp uses new security paper, and both optical variable ink (overt feature) and invisible ink (covert feature).¹⁰ It carries a unique serial number for each cigarette pack to be sold in Brazil.¹¹ The code allows for the storage of multiple information fields relevant to the product such as the manufacturer, manufacturing date, fiscal class, and the final destination of the cigarette pack. The code is only activated during its application onto a cigarette pack at the 160 packaging lines of 19 licensed cigarette manufacturers,⁸ which must have special coding equipment installed. This equipment identifies the security ink, validates the code, and registers all information of interest, thus turning the stamp into proof of legitimate cigarette production. Activation of the code is possible on machines operating at a speed of 700 packs a minute.⁵ If the electronic code of the tax stamp is not validated (e.g., a manufacturer uses tax stamps whose codes are not detected, are not allocated to that specific manufacturer, or do not match the fiscal category of the pack),⁵ the system will send a message to the

Data Management Server (DMS) and issue an alert to the Receita that can initiate an investigation. The codes on the packs are not human-readable and law enforcement officers must use scanners to read the data imbedded in them.¹¹ By scanning the code, law enforcement field inspectors have access to online package-related data available on the Data Manager Server.⁵ Government auditors, retailers, and distributors must use specific handheld scanners to authenticate a product. The codes can be read even outside Brazil using any ECC200-compatible scanner.¹²

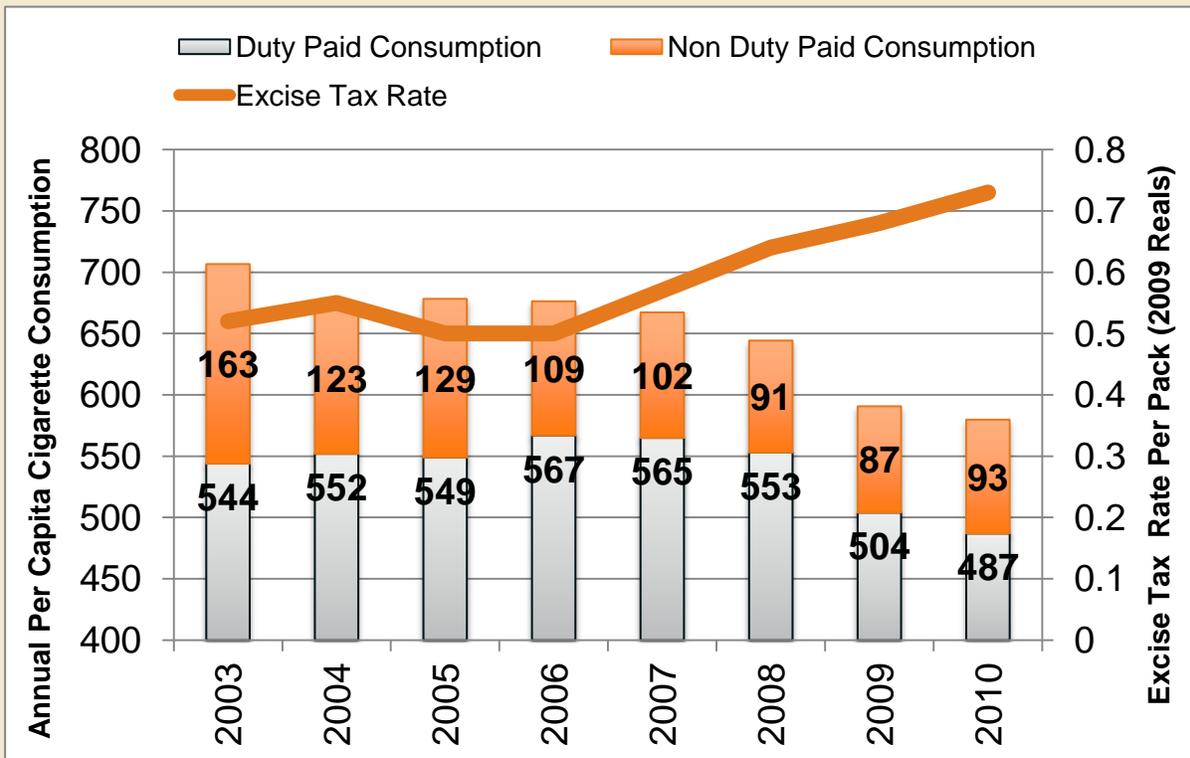
In 2009 the SICPA system expanded its tracking and tracing system to beverages.¹³ The contract for tracking and tracing with SICPA was renewed in 2012 and extended to cigarette export. This established a no tobacco excise tax exemption environment. All exported cigarette packs are marked by a visible two-dimensional matrix code (instead of an invisible code as for the domestic products) on packs and cartons so that they can be easily identified if they return to Brazil. The new marking is a clear improvement over the previous rules, which required only the display of the exporter tax ID on the pack and that products made for export could not be sold or displayed in the domestic market. Cigarettes that are going to be exported pay the tax and the company is entitled to receive a credit for that payment after the export takes place. The importer must be a legal entity linked to a Brazilian exporter, who has the responsibility to prove the payment of import tariffs and domestic taxes in the country of destination. If the exporter does not show the required documentation within 120 days after the export, or if these products come back to Brazil as contraband, it is responsible for all taxes on these products.

Cigarette manufacturers pay for the cost of the track and trace system.³ In August 2011, the costs were 0.0334 Brazilian real (US\$ 0.01845) per pack. The cost to the government is minimal.⁵

Despite the implementation of the track and trace system in 2008, tobacco industry estimates showed only a small decline in tax evasion in the period of

Figure 1

Brazil: Cigarette Prices, Sales, and Revenue



Source: ERC Group. World cigarettes report. Suffolk, UK: ERC Group; 2010.

2007–2010: from 28.7% to 26.4% of total consumption, which still translated to 31 billion cigarettes being consumed illegally in 2010.¹⁴ However, the first independent estimate of the illicit cigarette market share showed that about 20% of total consumption consists of illegal cigarettes,³ and the ERC, a company providing commercial data, reported in 2010 that the share of illicit consumption was 16%. The track and trace system exposed 7 manufacturers’ engagement in illicit activities and led to the closure of their operations during the first two years of its implementation.⁸ The introduction of an export-marking scheme in 2012 eliminated the diversion of Paraguayan imports back into Brazil and the alleged export of tobacco products to Paraguay.¹²

The change in tax policy accompanied by the implementation of the track and trace system increased real cigarette prices, reduced both legal

and illegal cigarette consumption (Figure 1), and increased tax revenue (Figures 2 and 3). The number of smokers in Brazil declined from 21.35 million in 2006 to 18.10 million in 2012. This prevalence reduction is consistent with the observed reduction of legal cigarette sales per adult (Figure 1) and with data showing that smokers quit or reduced daily consumption instead of switching to illicit cigarettes.¹⁵ The decline in illegal consumption was primarily due to the elimination of domestic illegal production (estimated at 10 billion cigarettes a year in the period of 2000–2009).¹⁶ Despite the decline in legal cigarette sales between 2006 and 2013, revenue from tobacco excise taxes increased by 47.5%, from 3.5 billion (US\$ 1.76 billion) to 5.1 billion reals (US\$ 2.56 billion in real 2013 values) (Figure 2). When the Ministry of Finance announced the 2009 tax increase, they stated that smuggling should be fought by other means than low-tax pressure. The

Figure 2



Sources: TFK Tobacco Tax Success Story Brazil, Federal Revenue Secretariat (Receita Federal do Brasil) and Brazilian Statistical Office (IBGE), Roberto Iglesias unpublished manuscript 2012.

2010 Receita proposal to increase tobacco tax did not even mention the illicit trade issue.³

However, the illegal cigarette market is still being supplied by Paraguay—approximately 20 billion cigarettes produced in Paraguay are being illegally sold in Brazil each year.¹⁶ The latest data by Euromonitor indicate that the volume of illicit cigarette consumption rose by 8.2% from 2011 to 2012.¹⁷

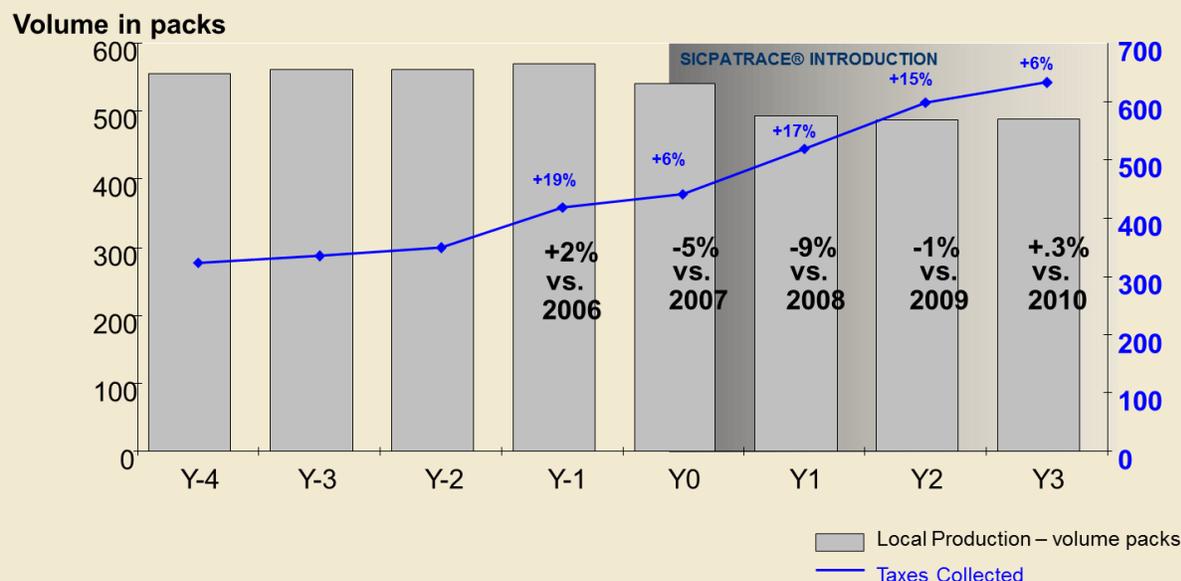
The Receita has a Tax Control Unit, and this Unit has the Special Coordination of Great Taxpayers department that deals with major taxpayers. Other Receita units such as the General Coordination of Economic, Taxation and Revenue Forecast Studies and the General Coordination of Taxation also provide input on tax policy. Besides the Receita, no other ministries have regular input into tobacco tax policy development. However, there are no legal restrictions on input from other ministries. The Ministry of Health, for example, can raise the issue of tobacco tax increases.

Tax and customs administration capacity was improved through better coordination and intelligence sharing, but there is a room for

improvement.⁴ Brazil has a radar system that controls the country's airspace and legislation authorizes the forcing down of an aircraft that violates airspace. Bringing in contraband by air constitutes an aggravated crime. The prosecutions are conducted by police authorities and a variety of judicial authorities. All customs seizure proceedings go before the courts, but there are very few judgments that result in prison sentences being imposed, except in cases involving large criminal organizations, of which there are few.⁴ Brazil distinguishes between illegal trafficking of legal products and illegal trafficking of illegal products. This leads to lower sanctions being applied in the case of, for example, contraband cigarettes concerning a brand that is legally sold in Paraguay, as opposed to a case involving counterfeit cigarette brands.⁴ The punishment for involvement in tax evasion should be enhanced (e.g., longer prison sentences with no eligibility for early parole) with a focus on those bearing overall responsibility for operations. There should be incentives for law enforcement agencies to combat criminal activities (e.g., get the proceeds from the sale of seized vehicles).

Figure 3

Brazil: Local Cigarette Production and Tax Revenue, 2004–2011



Source: SICPA presentation to the World Bank, 2014.

Note: Domestic production represents 99.8% of cigarette consumption in Brazil.

The track and tracing system solved domestic tax evasion by eliminating domestic illicit manufacturers, but not the illegal supply coming from Paraguay. Because of the continued demand and the dynamism of the source, focusing only on domestic producers will likely not solve the problem in any given jurisdiction. Realizing that international cooperation is necessary, Receita officials and Paraguayan authorities began to discuss a cooperation agreement, which would include sharing both public and confidential data.³ The Paraguay tax authorities have also started the process of implementing a track and trace system and drafting new tobacco excise tax legislation.

The system used currently in Brazil is based on legislation and is controlled and managed by the government. Its primary objective is tax verification and manufacturers' monitoring, and therefore it includes additional components beyond tobacco traceability.⁹ It is a sophisticated solution for the domestic market, but it does not meet the

requirements of an international track and trace regime for tobacco products because it does not allow tracking of tobacco products beyond point of manufacture, it is not using international serialization standards, and it does not allow for an international data exchange base.⁹

Canada

In the mid-1990s, illicit cigarette consumption accounted for 30% of the total Canadian market.¹⁸ The majority of these illicit cigarettes were legally produced in Canada by major manufacturers, exported untaxed to the United States and then smuggled back into Canada (see Figure 4).¹⁹ To address the situation, the Canadian government implemented the National Action Plan to Combat Smuggling in 1994. It consisted of federal tax cuts, measures to reduce smoking through public education/awareness, as well as legislation and regulatory amendments such as increasing export tax, decreasing the traveler's exemption for

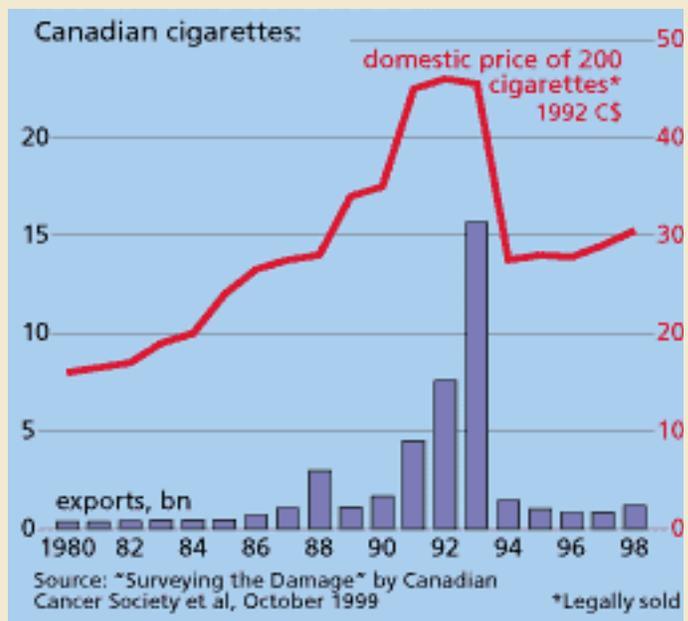
importing duty-free cigarettes, and tightening the rules for duty-free shops and stores on ships. At the same time, some provinces voluntarily lowered their tobacco tax to contribute to this effort. The 1994 Plan also enhanced enforcement by allocating new resources to the Royal Canadian Mounted Police (RCMP) and Canada Border Services Agency (CBSA) to intensify control along the Canada-US border and in other high-risk areas within the country. Criminal charges and civil lawsuits have been brought against tobacco manufacturers involved in tobacco smuggling (Imperial Tobacco, Rothmans, Benson & Hedges, JTI, and RJR Reynolds).¹⁹ In 2008 and 2010, these companies agreed to pay a total of \$1.7 billion dollars in criminal fines and civil restitution for their role in smuggling schemes.²⁰

The tobacco tax reduction led to lower cigarette prices and higher smoking rates, especially among youth.²¹ This motivated tobacco companies to focus their efforts on expanding the legitimate tobacco market in Canada and to stop illegally re-importing from the US (see Figures 4 and 5, Table 1).

Assessing the impact of the 1994 tax cut on smoking rates and tax revenue, the federal government began to increase tobacco excise taxes and restored them to their pre-1994 level by June 2002. At the same time, the provinces also implemented substantial increases in tobacco taxes.¹⁹ The 1994 Plan solved the supply of illicit cigarettes only temporarily, since it prompted a shift toward illicit manufacturing in central Canada and in specific Aboriginal communities based both

Figure 4

Export from Canada to the US and Canadian Prices



in Canada and in the US.¹⁹ In addition, counterfeit cigarettes, illegally imported “fine cut” tobacco, and cigarettes sold tax-free to non-Aboriginals started illicit manufacturing in central Canada and in specific Aboriginal communities based both in Canada and in the US.¹⁹ In addition, counterfeit cigarettes, illegally imported “fine cut” tobacco, and cigarettes sold tax-free to non-Aboriginals started to appear on the market.²⁰ By 2006, illicit cigarette seizures increased again, but the majority of seized products were those illegally manufactured,

Table 1

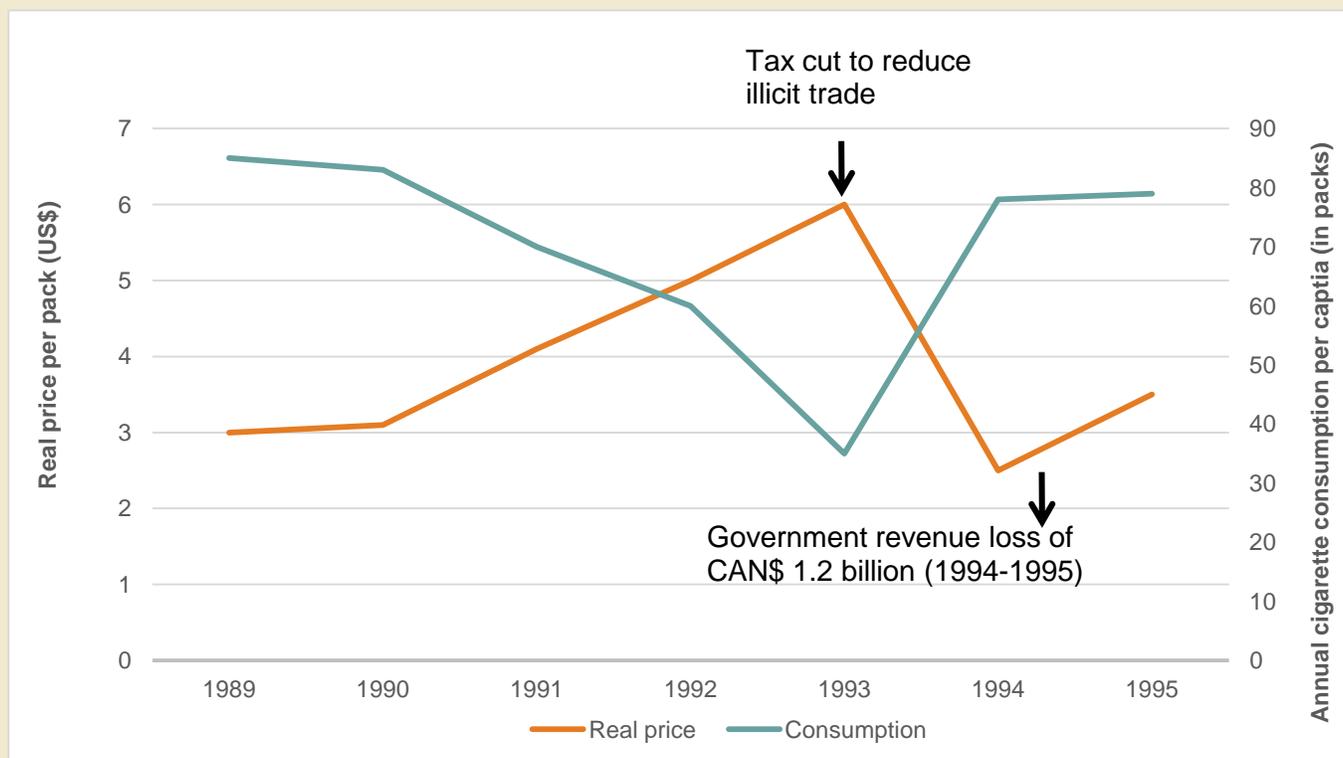
Cigarette Consumption in Canada, 1990–1994 (billions)

	1990	1991	1992	1993	1994
Legal Sale	54.25	46.90	41.41	35.20	50.49
Illegal Sale	1.27	4.43	9.83	14.21	4.20

Source: Ouellet JF. The failure of tax policies to curb tobacco consumption: results of the 1994 statistics Canada survey on smoking HEC Montréal. 4 January 2010.

Figure 5

Real price of cigarettes and annual cigarette consumption per capita in Canada, 1989–1995



Source: Price and Demand for Tobacco. Presentation 3, Workshops on tobacco price and taxation, WHO; 2009.

followed by counterfeit (representing approximately 22% of cigarettes seizures) and illegal foreign tobacco products such as bidis, water pipes, and chewing tobacco (approximately 6% of cigarettes seizures).¹⁹ Figure 6 shows the number of illicit cigarette seizures and demonstrates no relationship with tobacco tax policy for the period 1994–2008. Even though seizures are not the best measure of the level of illicit market penetration due to their sensitivity to the level of enforcement, the increase in the number of seizures in 2006–2008 occurred despite the decline in the RCMP enforcement resources in 2002–2008.¹⁹

To address illicit tobacco consumption, RCMP launched its first Contraband Tobacco Enforcement Strategy in 2008 (Box 2). It was the result of the 2007 national consultation process involving over 70 individuals with diverse backgrounds, including tobacco control experts and government officials.

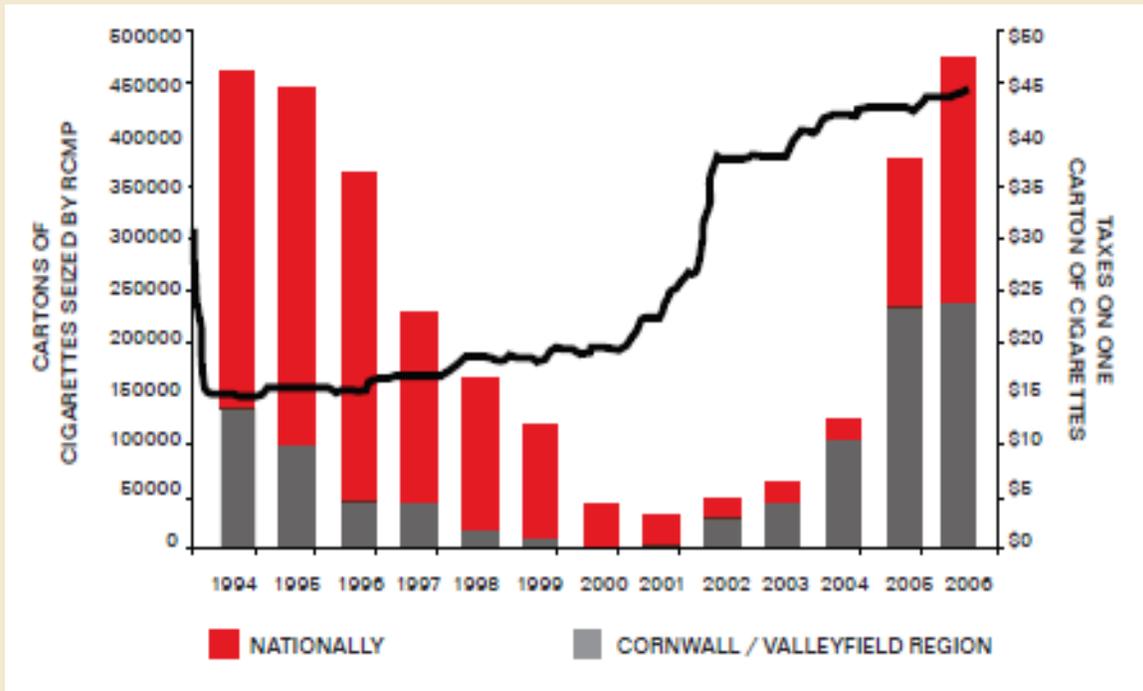
The Strategy consisted of a multipronged approach while stressing the importance of collaboration.¹⁹

The goal of the public education campaign run by the RCMP from May 2008 till 2011 was to raise public awareness about the public safety and health consequences of the illicit tobacco trade. The communication strategy involved public meetings with mayors, partnership with local drug-focused groups, presentations to local police, information sheets for retailers, information booths at local malls, public service announcements, and launching new websites (both internal and for general public).¹⁸

Another set of government regulations including the \$300 million federal Tobacco Transition Program and the Raw Leaf Tobacco Growers' Licensing Program was adopted in 2008. These measures reduced the production of raw tobacco

Figure 6

Average Tax Rates and Cigarette Seizures in Canada



Source: Royal Canadian Mounted Police. Contraband tobacco enforcement strategy. 2008; Cornwall/Valleyfield is the primary area for illegal cigarettes crossing from the US to Canada.¹⁹

leaves in Canada and controlled its commercialization. As result, illegal manufacturers had to rely on imported tobacco and this increased their production costs. Since the imported tobacco was often of lower quality, illicit cigarettes could only be sold for a very low price, which lowered the profit margins of illicit manufacturers and smugglers, and lessened the appeal of this business for large criminal organizations.²⁰ Other possible measures that would increase the costs of illicit production, such as better control over paper, filters, or cigarette machines, or higher taxes on all those were not adopted, but would have had a similar effect.²⁰

To better control the supply of final products, the Federal government introduced tobacco stamps (provided by the Canadian Bank Note Company and SICPA²²) in September 2010. By April 2011 all cigarette manufacturers had to comply with the stamping regime while provinces or territories could choose to be part of it.⁶ The regime is based on encrypted multilayer tax stamps that combine

overt and covert unique security features including invisible ink⁵ and can be ordered online. There are 110 distinctive stamp types for 11 different tobacco product types in 10 different jurisdictions. The tax stamp carries a code with data for each pack, can only be authenticated by a proprietary device,²² and must be affixed on locally-manufactured tobacco products, cigars, imported cigarettes, and Canadian raw leaf tobacco.²³ All packages must include a name and address or license number of the manufacturer.⁶ The system does not have a manufacturing line activation system, but it does have a unique identifier that is human-readable. It allows for tracking/tracing inside Canada and for secure supply chain reporting using the SICPA Data Management System (DMS).^{6,24} The markings on stamps are not readable outside of Canada, therefore international tracking and tracing is not possible.⁶

Excise duty is imposed on tobacco products at the manufacturing level and is payable by the manufacturer, or in the case of imported tobacco

Box 2

The RCMP Strategy:¹⁹

- Work with domestic and international law enforcement partners to identify and target criminal organizations as well as seize the proceeds of their crimes;
- Develop, support and employ innovative law enforcement models to target and disrupt smuggling and distribution networks;
- Conduct coordinated surge enforcement operations in high-risk locations to disrupt the contraband tobacco supply chain;
- Enhance coordination and awareness with Public Prosecutions and the Courts to ensure the appropriate application of federal law;
- Pursue the establishment of a national committee comprised of senior representatives from relevant federal, provincial and territorial departments and agencies to increase strategic-level coordination of efforts and cooperation;
- Establish regional operational coordination committees comprised of federal and provincial law enforcement partners to enhance information sharing, improve target identification and selection, and coordinate operational responses;
- Appoint, in each RCMP Division, a coordinator to oversee the implementation of this tobacco strategy;
- Collaborate with law enforcement partners to co-locate intelligence resources in order to develop a complete picture of the illicit tobacco trade and identify the highest priority threats;
- Pursue the development of information sharing protocols with key partners, such as the Canada Revenue Agency;
- Clarify the division of roles and responsibilities between the RCMP and CBSA in relation to the enforcement of the Customs Act;
- In partnership with the CBSA, the Canada Revenue Agency, the US Alcohol and Tobacco Tax and Trade Bureau and the US Bureau of Alcohol, Tobacco, Firearms and Explosives, hold an annual workshop on the illicit tobacco trade to increase cross-border collaboration and information sharing, and support the development of bi-national initiatives to tackle tobacco diversion;
- Use current mechanisms as well as develop new lines of communication to increase dialogue with Aboriginal governments on issues associated with the contraband tobacco trade;
- Educate private sector entities (e.g., suppliers of cigarette machinery, paper and packaging, and hydro companies) and financial institutions (e.g., credit card companies) about the nature and scope of the illicit trade in tobacco products and seek their support in reporting suspicious activity and, where appropriate, terminating business relationships with illicit operations;
- Heighten awareness about the public safety and health consequences of the illicit tobacco trade;
- Develop and communicate targeted messages for the general public, smokers, and Aboriginal communities;
- Seek hearings with key decision-making bodies, such as the National Coordinating Committee on Organized Crime, the Canadian Association of Chiefs of Police the Canada-US Cross-Border Crime Forum and Aboriginal organizations to raise awareness about the significant growth of this criminal market;
- Maximize the use of the RCMP Internet and Intranet sites to communicate the latest information;
- Identify current legislative and regulatory control mechanisms that will further deter organized crime's involvement in the illicit tobacco trade;
- Assess the viability of additional amendments to enhance the government's ability to reduce the impact of the illicit trade and reduce its profitability;
- Collaborate with the interdepartmental community, academia and non-governmental organizations on research projects in order to increase knowledge of the illicit tobacco trade;
- Develop metrics that will enable the RCMP and its partners to better gauge our success in decreasing the contraband market and the availability of tobacco to smokers.

entering the domestic Canadian market. Indians are not exempt from excise duty, but are exempt from the sales tax when purchasing cigarettes on a reserve upon the verification of their status. In addition, many provincial governments exempt Indians from paying provincial taxes. Others buying cigarettes on a reserve are subject to all taxes.¹⁹

First Nation retailers in Alberta, Saskatchewan, Manitoba, Quebec, and New Brunswick are required to pay taxes on all sales, but can get a refund by filing a monthly report on tax-exempt sales. They are also subject to a specified quota of tax-exempt sales, which is based on a reserve’s population size and consumption habits, which ensures that there is no excess product that might be smuggled and sold off-reserve.²⁵ However, many retailers with refund programs sell tax-exempt product to individuals without adequate proof of eligibility, and eligible consumers sometimes buy product for non-eligible users, which undermines the policy.²⁵ In addition, most quotas are too high and allow quota-bound retailers to sell to ineligible customers. In some cases, the quota system has had an unintended consequence—when a retailer does not have the money to buy the full quota at the beginning of the month, s/he may rely on illicit cigarette supplies later in the month to maintain his or her stock. This fuels the demand for illicit cigarette production. The quota

system has only moderate potential without real-time electronic monitoring of purchases and discretionary licensing (e.g., refusing to license new retailers in an already densely populated market). Alberta province tried to use electronic eligibility cards and British Columbia implemented discretionary licensing with some success.²⁵

The introduction of a tracking and tracing system in 2010 was accompanied by a number of new enforcement initiatives in the most critical regions (e.g., the Cornwall area). Collaboration between the RCMP and the CBSA proved to be one of the most effective ways to handle complex investigations involving illicit tobacco trade.¹⁹ The Cornwall Regional Task Force with a specialized unit devoted to tobacco smuggling was established in 2010 and includes representatives of the RCMP, the CBSA, the Ontario Provincial Police, and the Akwesasne Mohawk Police. The Integrated Cross-Border Law Enforcement Operations Act that came into force in 2012 allows US officers to cross the border into Canada where they have the same power to enforce the law. However, the planned joint patrols by US and Canadian border enforcement units have been contested by Mohawk authorities.²⁰

The Aboriginals are concerned that a crackdown on illicit tobacco would have a significant negative economic impact on the communities and threaten

Table 2

Canada: Smoking Status Aged 15 Years Older, 1999 and 2012

CTUMS Annual 2012	1999		2012	
	Population	Percentage	Population	Percentage
Total Population	24,260,326	100	28,680,393	100
Never Smokers	11,992,942	49	16,039,065	56
Ever Smokers	12,267,384	51	12,641,328	44
Former Smokers	6,145,392	25	8,011,341	28
Current Smokers	6,121,992	25	4,629,987	16

Source: Canada: smoking status aged 15 years older from 1999 and 2012 in Canadian Tobacco Use Monitoring Survey (CTUMS). http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/research-recherche/stat/ctums-esutc_2012-eng.php (accessed 4 April 2015).

their autonomy. They are often ideologically opposed to collecting taxes from citizens, and do not want to take on the role of tax collectors.²⁵

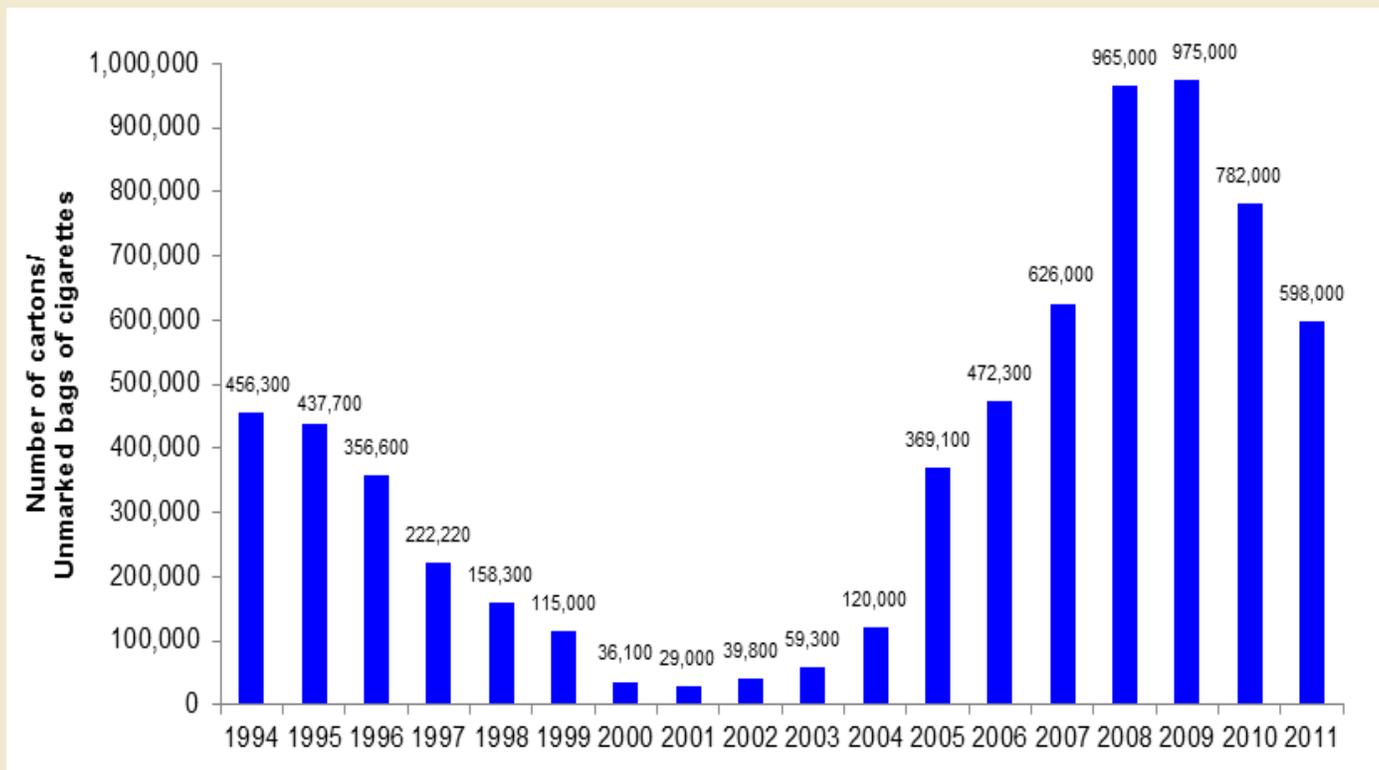
Given the sovereignty issues, the Canadian government does not consistently enforce manufacturer or retailer regulations on-reserve²⁵ and most of the enforcement effort is concentrated on sales outside the Native reserves. Even though smugglers are being arrested outside the reserves and their goods seized, the fines for possessing illicit tobacco are rarely paid in full. Most people caught are teenagers or young men, but those who control large-scale distribution beyond the reserve are rarely caught or sanctioned unless they engage in other kinds of smuggling. As a result, law enforcement intercepts only a small part of the illicit tobacco product flow and tries to ensure that the smuggling infrastructure is not used to transport other goods, in particular weapons,

drugs, and humans. This approach appears to be quite successful and has limited the use of smuggling routes for other purposes while the levels of violence, both among trafficking organizations and between the police and the smugglers, have been low.²⁰

In March 2013, the Canadian government amended its Criminal Code with the intention to address the illicit tobacco trade. It introduced more severe sentences for those engaged in this trade—up to five years in prison for trade involving 10,000 cigarettes (50 cartons or a single case) or 10 kg of tobacco or other tobacco products. There are compulsory minimum sentences for repeat infractions, with prison terms of 90 days, 180 days, and two years less a day for second, third, and subsequent infractions, respectively. In addition, a new 50 member RCMP unit devoted exclusively to illicit tobacco is being set up. The impact of these

Figure 7

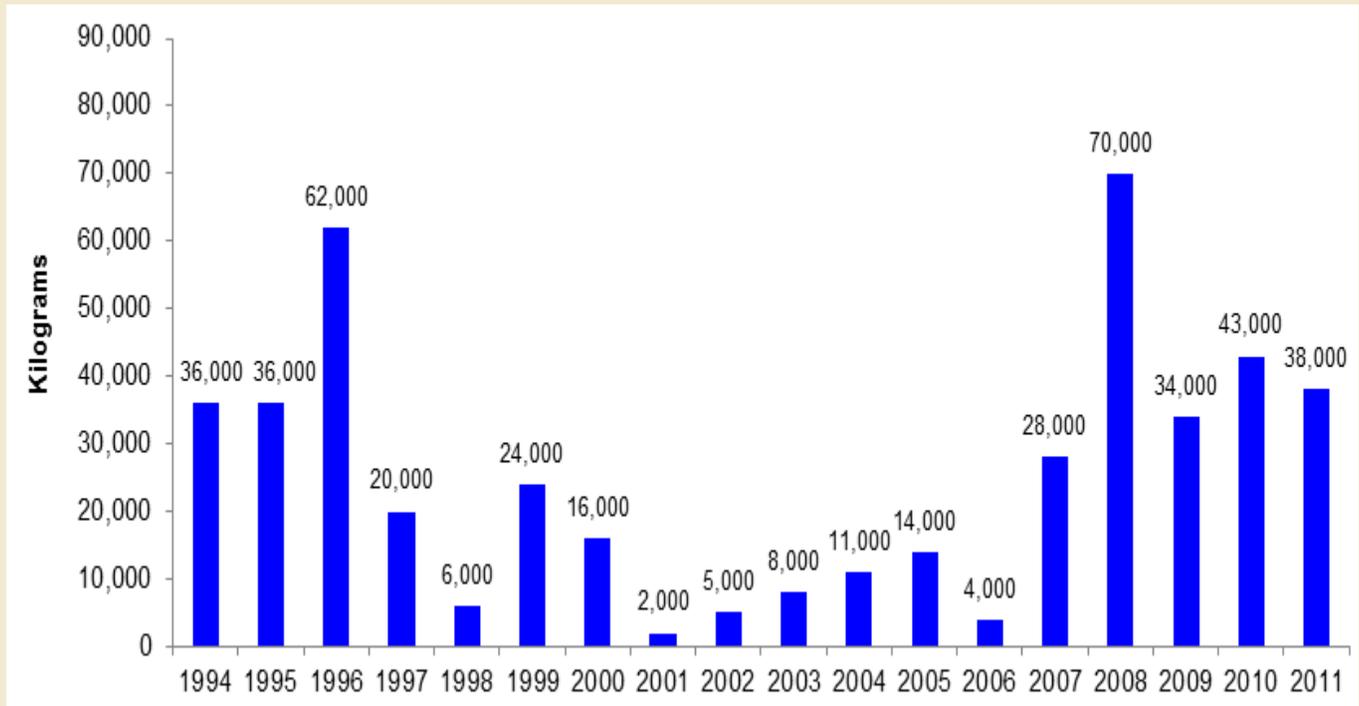
RCMP Cigarette Seizures, 1994–2011



Source: Royal Canadian Mounted Police. 2011 Contraband Tobacco Statistics. Available at: <http://www.rcmp-grc.gc.ca/ce-da/tobac-tabac/stats-2011-eng.htm>.

Figure 8

RCMP Fine-Cut Tobacco Seizures, 1994–2011



Source: Royal Canadian Mounted Police. 2011 Contraband Tobacco Statistics. Available at: <http://www.rcmp-grc.gc.ca/ce-da/tobac-tabac/stats-2011-eng.htm>.

measures will depend on the extent to which they will be enforced, particularly on-reserve where *de facto* immunity has severely constrained the effect of formal prohibition on the illicit tobacco trade.²⁰ There are some signs that the enhanced enforcement effort has imposed additional costs on those engaged in the illicit tobacco trade.²⁰ An unintended consequence of the enforcement is that the difficulty to distribute illicit products outside the reserve increased competition on reserves, driving down the prices.¹⁸

Control of the illicit tobacco supply chain and enforcement measures have been accompanied by tobacco control public health programs. This has led to a continued decline in smoking rates despite the presence of lower-priced illicit products (Table 2).²⁰ As of May 2014, clear plastic bags (“baggies”) containing 200 illegal cigarettes cost approximately CAN\$ 8 while the cost of a legitimate carton (200 cigarettes) was about CAN\$ 90.²⁶

The Canadian government does not provide official estimates of the size of the illicit market or comprehensive data on contraband tobacco seizures.²⁵ The existing estimates are either provided by the tobacco industry or by NGOs. According to the tobacco industry, the share of the illicit cigarette market went up from 16.5% of the total market estimated in 2006, to 22% in 2007,¹⁹ and to 32.7% in 2008.²⁷ These estimates corresponded to the increasing number of cigarette seizures (Figure 7). Contrary to BAT, the Non-Smokers’ Rights Association (NSRA) reported that illicit tobacco represented about 25% of the Canadian market in 2008. According to NSRA estimates, this share went down to 20% in 2009 (despite the ban of cigarette displays in stores that Canada instituted in 2008) and declined again in 2010 when it reached about 12% of total consumption.²⁰ A 2010 BAT’s estimate also points to the declining illicit market share, but shows that illicit consumption still represented 18.7% of the total market in 2010.²⁷ Cigarette seizures reported

by the RCMP confirm some success of the measures implemented in Canada to combat the illicit tobacco trade (Figures 7 and 8).

Since interprovincial bootlegging has never been identified as issue of concern in Canada,¹⁸ and the issue of large-scale smuggling schemes involving re-import of US exports has been resolved, future efforts need to focus on illegal activities on the reserves, on aboriginal participation in public safety, and on anti-organized-crime efforts. It will be important to have open, ongoing dialogue with various Aboriginal leaders and to collaborate with them in this effort. The language of policy solutions is important and can be a step towards reconciling different perspectives. For example, categorizing First Nations tobacco traders as organized criminals has previously closed the lines of communication. It is often non-First Nations people who deliberately make trips to reserves to purchase large quantities of tax-exempt tobacco products, and non-First Nations people often abuse on-reserve tax-exempt tobacco by selling it off-reserve.¹⁹

European Union

Illicit cigarette consumption in Europe currently represents between 6% and 10% of total consumption²⁸ while the estimated revenue loss ranges from €6.1 billion to €7.2 billion per year.²⁹

In 2011 the European Commission (EC) launched an action plan that tackled illicit trade within the EU with a particular focus on the smuggling of cigarettes and alcohol along the EU Eastern border. It involved, for example, the installation of cigarette detectors, X-ray scanners, the employment of mobile customs teams, and reinforced controls at the borders. This resulted in less cigarette smuggling from Ukraine into Poland and Hungary, for example.³⁰ The 2011 action plan motivated several national initiatives and cross-border collaborations. In December 2013 Estonia began to limit the number of cigarettes to be brought to the country duty-free to 2 times 40 pieces per month per traveler to address “ant smuggling” (i.e., the

organized and frequent crossing of borders by a large number of individuals with relatively small amounts of low-taxed or untaxed tobacco products). Car and container movements are now being monitored by three Baltic states (Estonia, Latvia, and Lithuania) using an automatic car plate and container code recognition system on the Russian and Belarusian border as well as on borders between these three states. Many EU countries ran public awareness campaigns to gain public support for enhanced enforcement when sales at open markets and via the Internet and the postal service became subject to extra scrutiny.³⁰

In June 2013, the European Commission (EC) published a much more comprehensive two-year strategy with an action plan to tackle illicit tobacco trade in the EU.³⁰ The 2013 action plan contains 50 measures, time lines, and outcome measures to be developed and implemented over the next two years by various EU institutions (Commission, Council, Parliament, and the Member States). The strategy proposes specific actions in four key areas targeting both the supply of and the demand for illicit products: decrease incentives for smuggling activities (primarily by harmonization of tax policies), improve the security of the supply chain (primarily by implementing tracking and tracing), strengthen and coordinate enforcement, and allow for heavier sanctions for smuggling activities. The specific measures include raising public awareness about the risks associated with consumption of illicit tobacco products,¹⁸ additional investment in equipment and IT tools to protect borders, improvement in intelligence gathering, risk management and joint customs operations, enhanced cooperation among EU agencies and with major source and transit countries, and sharing of expertise and best practices.³⁰

However, no new budgets have been allocated to implement this strategy. The action plan provides timelines (2013–2015) and outcome indicators, without describing specific objectives to achieve.³⁰

While the Commission acknowledges that illegal tobacco manufacturing in the EU is a growing problem, the 2013 strategic plan does not propose

any measures to control and prevent the illegal diversion of raw tobacco, acetate tow, or cigarette papers.³⁰ This represents a significant gap in the EU effort to control illicit manufacturing, because the trade in untaxed dry and raw tobacco leaves has increased since the EU stopped controlling its production and distribution in 2008. In Poland, for example, customs agencies discovered 38 tons of illegal raw tobacco in 2009, but 170 tons in 2010. To address the issue, Poland introduced an excise tax on dry (cured) tobacco leaves in January 2013. The law did not cover raw (moist) tobacco leaves, which led to the decline in the dry tobacco trade in favor of the raw tobacco trade. This loophole was fixed in 2014 by introducing a tax on raw tobacco. Registered manufacturers or agents are exempt from this tax, because the excise tax will be paid when it is turned into a tobacco product. All other purchasers are required to pay the tax that amounted to 229.32 PLN (US \$64) per kilogram on both raw and dry tobacco.³⁰

In term of the tracking and tracing, in April 2010 the EU implemented a computerized system for monitoring the movement of excise goods called Excise Movement and Control System (EMCS).²⁹ It monitors in real-time the movement of excisable goods, establishes a single point of contact in each Member State, and defines the minimum electronic database that is established and maintained by each Member State. The system assists with cross-verification of documents accompanying the movement of tobacco products, risk assessment based on the data from EMCS and other sources (e.g., customs databases), inspections of premises and vehicles, verification of use and movement of excise stamps, and information exchange with other tax administrations across the EU.

The EMCS includes other web-based applications such as the System for Exchange of Excise Data (SEED) (a centralised database with information on traders who are approved to hold, move, or receive goods under excise duty suspension), the Early Warning System for Excise (EWSE) and the Movement Verification System (MVS). The MVS integrates the movement of duty-paid goods into

EMCS. Each time a new movement is requested, an electronic Administrative Document (e-AD) is issued and automatically cross-checked with the EMCS data on the economic operators involved before validating the movement and creating the Administrative Reference Code (ARC).

The system was updated in January 2012 to allow for an exchange of enquiries between Member States on the movement of excisable goods. In addition, the EMCS has been fully integrated with the SEED: each time a new trader's approval is added to SEED, a unique 13-digit reference excise number is allocated and recorded on the excise trader's approval certificate. This enables each excise trader to be uniquely identified. In addition to serving as a database of the excise traders, after being incorporated into the EMCS, SEED performs automatic checks by matching the excise numbers of the consignor and the consignee against the register of operators, before the goods are approved to move under duty suspension. If these details do not correspond with the contents of e-AD, the goods cannot be moved. EMCS has both EU-wide and national components and, together with the administrative cooperation and information exchange, form the key elements in the fight against fraud.²⁹

The EMCS system has two major weaknesses: the inconsistent treatment of certain excisable tobacco products across the Member States, and the exclusion of certain tobacco products (raw tobacco in particular) from the definitions of excisable tobacco products. The goods that are not subject to excise tax are not monitored via the EMCS. In addition, the level of detail available via the system and automation of the process is limited.

Duty-paid products do not move under EMCS procedures, but have to be accompanied by a Simplified Accompanying Administrative Document (SAAD) in cross-border movements.²⁹

In December 2013 the Commission signed, but has not yet ratified (as of January 2015) the WHO Protocol to Eliminate Illicit Trade in Tobacco Products. The Protocol's tracking and tracing

Table 3**Characteristics of the Agreements between the TTCs and the EU³²**

Company	Total payments US\$	Date of signature	End	Settlement and /or discharge of legal claims	Renewal clause	Termination clause	Baseline amount of cigs seized
PM	1 billion	9/7/2004	9/7/2016	Yes	Yes	No	450 million*
JTI	400 million	14/12/ 2007	14/12/2022	Yes	No	Yes	90 million
BAT	200 million	15/7/2010	15/7/2030	Unclear	Yes	Yes	150 million
ITL	300 million	27/9/2010	27/9/2030	Yes	Yes	Yes	90 million

* Original amount was 90 mil seized in the participating Member States, increased to 450 mil for all 27 EU member states in 2011

Source: Joossens L, Gilmore A, Stoklosa, et al. An assessment of European Union's agreements with the four major transnational tobacco companies to address the illicit cigarette trade. *Tob Control* Published Online First: 22 May 2015. doi: 10.1136/tobaccocontrol-2014-052218

system has been fully supported by the new EU Tobacco Products Directive that came into force in May 2014. The Directive calls for both an interoperable track and trace system and overt and covert security features, although the security feature requirements are completely separate from track and trace.³¹ The traceability of tobacco products will come into force in 5 years for cigarettes and roll-your-own tobacco, and in 10 years for other tobacco products. The EU Commission will determine the technical standard for the track and trace and for the marking. Implementing these security features to fight smuggling and counterfeiting was supported by 73% of EU citizens in 2009, even if they result in higher product prices.³⁰

There are two main differences between the track and trace system proposed by the EU Directive and by the WHO Protocol: the Directive does not exclude the tobacco industry from a central role in tracking and tracing and it does not require secured markings on packages.³⁰ In addition, many EU countries lack expertise in the technical aspects of the tracking and tracing provisions. There is a risk that the global tracking and tracing system will fail or hardly function without EU technical and

financial support to the WHO Protocol implementation, yet Europe would profit the most from such a system since most cigarette seizures take place in this region.³⁰

One of the key elements of the Commission's policy to combat illicit cigarette trade is collaboration and agreements with the four major international tobacco companies: Philip Morris International (PMI), Japan Tobacco International (JTI), British American Tobacco (BAT), and Imperial Tobacco Limited (ITL).³⁰ The agreements were motivated by the 1990s influx of illicit cigarettes from the USA supplied by these companies. Their products were legally exported from the US but then disappeared during international transport and arrived on the illegal markets of Italy, Spain, and other European countries. The agreements require tobacco companies to control their supply chain by conducting rigorous checks on their customers and contractors, accept only limited forms of payment for cigarettes in order to combat money laundering, implement tracking and tracing procedures so that information can be obtained about the supply chain if cigarettes are subsequently found in illicit channels, cooperate fully with law enforcement

authorities, and make substantial payments to the EU and the Member States (MS) (Table 3).³²

All agreements foresee two types of payments: annual payments (totaling US\$ 1.9 billion over 20 years) and supplementary seizure payments, equivalent to 100% of the evaded taxes in the event of any seizures of their products above 50,000 cigarettes. If the number of seized cigarettes exceeds the baseline amount, supplemental payment rises to 500% of the evaded duties and taxes.

The plan for distribution of the payments was agreed between the EU and the MS. The payments are based on a formula that involves a number of factors, including the amount of taxes and duties on cigarettes in each of the MS. The amount allocated to the EU (9.7%) corresponds to the EU's share of custom duties and VAT accruing to the EU budget as revenue. The remaining 90.3% were allocated to the MS in annual installments consisting of 3 shares: 10% equal sharing between the MS, 40% based on tax receipts on sales and 50% based on seizures.³⁰

The industry agreements with the European Commission and EU MS to control illicit tobacco trade in Europe are in many respects a failure. Despite the agreements, growing evidence indicates the four tobacco companies remain involved in illicit trade or are at best failing to secure their supply chains as required by the agreements.³² The data show that their impact on tax avoidance and tax evasion was only temporary: seizures of illicit cigarettes substantially declined immediately following the 2004 agreement with PMI, but this progress has not been sustained in subsequent years as the industry has found ways to avoid penalties linked to illegal cigarette seizures thanks to multiple loopholes in the agreements. For example, seizure payments are not made when the cigarettes are counterfeit, and customs officials rely on the industry to determine whether cigarettes are counterfeit (not eligible for seizure-based payments) or genuine (eligible for the payments). This means that the industry is in control of determining whether a seizure payment will be

made or not, and they fully take advantage of that power. To illustrate, PMI determined that 92% of seized cigarettes were counterfeit for the purpose of the payments in 2011, but a PMI-commissioned study estimated that only about 16% of illicit PMI cigarettes consumed in the EU were counterfeit in that year.³²

Another aspect of the Agreements that makes it challenging to collect the seizure payments is the change in the nature of illicit cigarette trade from large to multiple smaller consignments after the Agreements were signed. This means that it is less likely for a seizure to meet the 50,000-cigarette threshold to qualify for the payment. Consequently, only very few seizures qualify for the payments and the recovered value of taxes and duties from seizure-based payments is minimal—0.08% of the estimated tax losses due to illicit cigarette trade in the EU in the period 2004–2012.³²

The amounts and the use of the settlement payments are not transparent. In addition, the industry portrays these payments as corporate social responsibility to curb illicit cigarette trade while the agreements are being promoted by the industry as the best practice to curb illicit tobacco trade.³²

The Commission relies on two sets of data to measure the level of illicit cigarette trade in Europe and the associated financial losses: the KPMG reports financed by the tobacco industry and seizure data. Both data sources provide useful information on the origin of illicit products, but are unreliable for measuring the level of illicit cigarette trade in the EU. The absence of reliable data makes it difficult to evaluate the impact of the EC strategy to combat illicit tobacco trade. The lack of new resources dedicated to this effort can be expected to affect its effectiveness.³⁰

Overall, the EU struggles with enforcement. EU policies can be enforced only if they are adopted by member states and implemented through joint intelligence gathering and actions, for example, by international joint investigation teams coordinated by Europol or Eurojust. Tobacco smuggling, though

one of many priorities set out in OLAF's performance program, does not have its own spending program, prosecutorial power, or even the power for administrative fines. Cigarette smuggling and counterfeiting are also not Europol priorities. Nevertheless, the EU still appears to be proactive in encouraging coordination among its member states.¹⁸

United Kingdom

In the late 1990s and early 2000s, the UK had one of the largest incidences of illicit tobacco trade in Europe. The illicit cigarette and hand-rolling tobacco market share reached about 20% and 61% of total market in 2000, respectively, representing annual losses of over £3 billion to the government.¹⁹ It was believed that nearly half of the illegal cigarettes were brands of Imperial Tobacco marked for export and smuggled back into the United Kingdom.¹⁸ The forecast by HM Revenue & Customs (HMRC) indicated that the illicit cigarette market share could rise to 34% by 2003/2004 if no action were taken (see Figure 9).³³

In 2000, in response to the growing illicit tobacco problem, the government launched a new multi-mission strategy with enforcement, education, and awareness components to address the increasing illicit tobacco market and allocated £209 million to it over three years.³⁴ The focus of the effort was to combat the large-scale smuggling of legal products, namely, container fraud and exports reentering the country.¹⁸ The main elements of the 2000 strategy were:³³

1. Working with tobacco manufacturers and signing Memoranda of Understanding (MOU) with all main manufacturers by 2001
2. Reducing the economic incentives to smuggle by increased penalties for smugglers and manufacturers
3. Increasing enforcement resources by adding 1000 more Customs officers/investigators and purchasing additional x-ray scanners³⁴
4. Reducing demand for illicit tobacco products by raising public awareness and tobacco taxes.

In addition, packs had to be marked by a prominent statement "UKDUTYPAID" printed on cigarette packets and pouches of hand rolling tobacco.¹⁸ Even though these markers cannot identify who produced/imported the pack, their main role is to prevent (licit) non-UK marked products from being systematically brought into the UK without paying the UK duty. A manufacturer or importer dealing in unmarked tobacco products is liable to civil penalty and the product is liable to forfeiture.²⁹

The MOUs with all major cigarette manufacturers in the country (Gallaher, British American Tobacco, and Imperial Tobacco) were signed in the period of 2002–2003. Though not legally binding, the MOUs were designed to enlist the support of the tobacco manufacturers in controlling the supply of cigarettes to the illicit market. They were regarded as a threat-based restorative justice policy, with the risk that the manufacturers would be prosecuted if they did not cooperate.

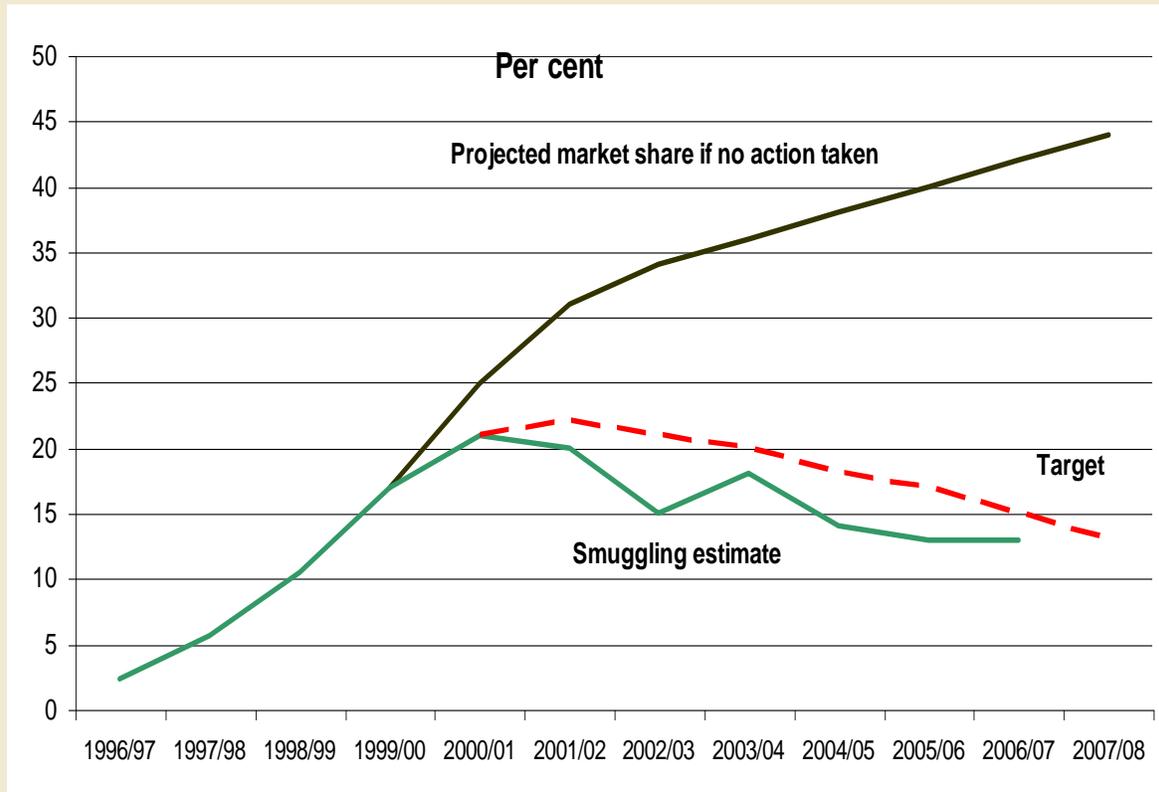
As a result of the implementation of the 2000 strategy, nearly 17 billion illicit cigarettes and over 2,700 tons of hand-rolling tobacco have been seized, 414 smuggling gangs were disrupted, and more than 3,000 cases were successfully prosecuted in the period of 2000–2006. Following the MOUs and public pressure in response to parliamentary hearings, Imperial Tobacco exports to places like Andorra—believed to be a major transit point for cigarettes bound for smuggled re-entry into the United Kingdom—declined sharply.¹⁸ Illicit cigarette trade went down from 20% in 2001–02 to about 16% in 2005–06 (Figure 9) while the revenue loss due to illicit tobacco started to decline. For example, the loss was reduced by £800 million already in the fiscal year 2003–04.¹⁹

The 2000 strategy was not effective in reducing the illicit market share of hand-rolled tobacco, which remained at 55% in 2006. The majority of it came to the UK from other EU Member State where some duty was paid duty on these products.³³

The revised 2006 strategy responded to new challenges that arose as the illicit tobacco supply adapted to the new regulatory climate. For

Figure 9

Estimates of Illicit Cigarette Market in the UK, 1996–2008



Source: Presentation by Deborah Arnott, ASH, 2009.

example, counterfeit cigarettes became more prevalent among the seized products and illicit products started to appear in postal shipments. Therefore, the UK government revised its MOU with the tobacco industry, further enhanced its enforcement, introduced new supply chain control measures, and began to target illicit hand-rolling tobacco and counterfeit products.

The important part of the overall strategy was collaboration among different government offices and key stakeholders. HMRC involved all types of customs authorities to deliver comprehensive enforcement, HM Treasury to evaluate the impact of tobacco taxation on the incentives to smuggle, local government authorities to provide resources to tackle the supply of counterfeits while addressing the breaches of Intellectual Property Rights, tobacco manufacturers to provide the necessary intelligence, the Department of Health to address the demand for illicit tobacco products, and WHO

to support the development of the WHO Protocol to Eliminate Illicit Trade in Tobacco Products.³³

The updated MOUs with the tobacco manufacturers required them to supply only brands and quantities consistent with legitimate demand in the intended market, to stop supplying customers who fail to demonstrate effective product control,³⁵ to provide information about sensitive brands/markets and any seizures of their products, to identify the production and movement history of the consignment, and to take action against suspected trademark infringements.³⁵ The manufacturers voluntarily agreed to add covert anti-counterfeiting markings on cigarette packs.¹⁸ As of October 2007, all cigarette packs manufactured for the UK duty-paid market bear a covert security feature that allows authorities to instantly verify the authenticity of a product on retailers' shelves.⁵ Hand-rolling tobacco pouches have these covert features as of October 2008.³³ However, the MOUs

made the UK government dependent on the tobacco industry for intelligence and forensic examinations of suspect tobacco products.³⁶

Tobacco manufacturers became liable for facilitating smuggling operations with penalties of up to £5 million for noncompliance.³⁴ Sanctions also targeted intermediaries in the illicit supply chain and included license revocation, a fine of up to £5,000, a six-month prohibition on the sale of tobacco products, removal of any National Lottery terminal, and revocation of any alcohol license.³⁷

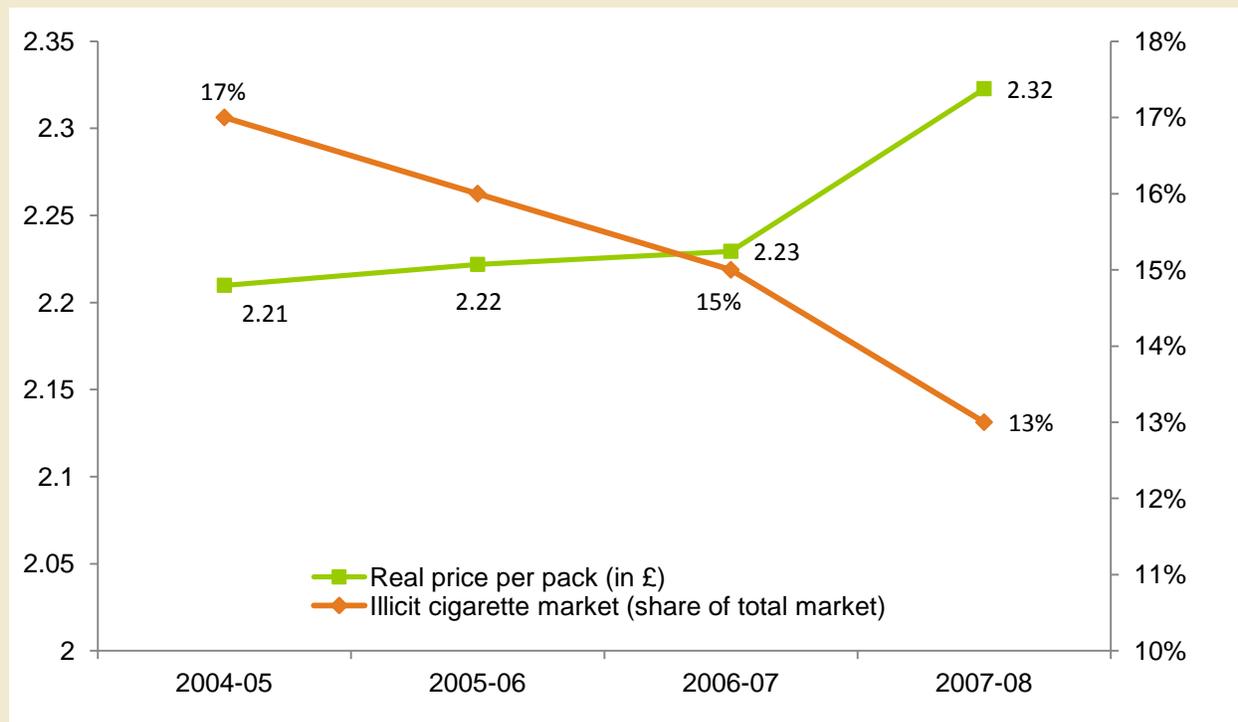
The UK practice of impounding vehicles used in bootlegging operations has reduced casual smuggling activities, shifting the sources of smuggling to larger containers and postal methods.²⁵ The postal service reported less than 20 million cigarettes seized in 2003/04, but more than 300 million seized cigarettes in 2007/08, the

majority of them being shipped from China and Eastern Europe.³³ Smugglers also shipped individual components of counterfeit cigarette products, such as packaging, tobacco, or paper, to be collected and assembled at a single site.²⁵ HMRC initiated close cooperation with postal services and fast parcel operators and launched a media campaign targeting postal smuggling from Poland.³³

From 2007 to 2008, HMRC ran a public education campaign, “Counterfeit Kills,” with the goal of reducing demand for cheap and counterfeit tobacco by raising awareness of the risks of counterfeit cigarettes and toxic ingredients of cigarettes in general. HMRC distributed leaflets and information material on how to spot tobacco fraud and ran a radio and bus advertising campaign calling on the public to anonymously report tobacco fraud.¹⁸ Although the campaign achieved its aims of

Figure 10

Cigarette Prices and Illicit Cigarette Trade in the UK, 2004–2008



Source: Illicit trade estimate from: HM Revenue and Customs. Measuring tax gaps 2010. September 2010; Cigarette prices from: European Commission. Excise duty tables; Inflation from: International Monetary Fund. World economic outlook database (2009 is the base for inflation adjustment).

suppressing demand for counterfeit cigarettes, it also reinforced the incorrect message that counterfeit cigarettes were more dangerous than the ordinary products, thus by default promoting consumption of legal cigarettes.³⁸

The revised 2006 strategy continued to bring down the share of the illicit cigarette market from 16% in 2005–06 to 13% by 2008–09. The size of the illicit market declined from 16 billion cigarettes in 2000 to 9 billion cigarettes in 2008–09, even though this still represented about €3.2 billion of tax revenue loss. The share of illicit hand rolling tobacco remained high with some signs of a declining trend: from a 55% market share in 2005–06 to a 52% market share in 2008–09.³³

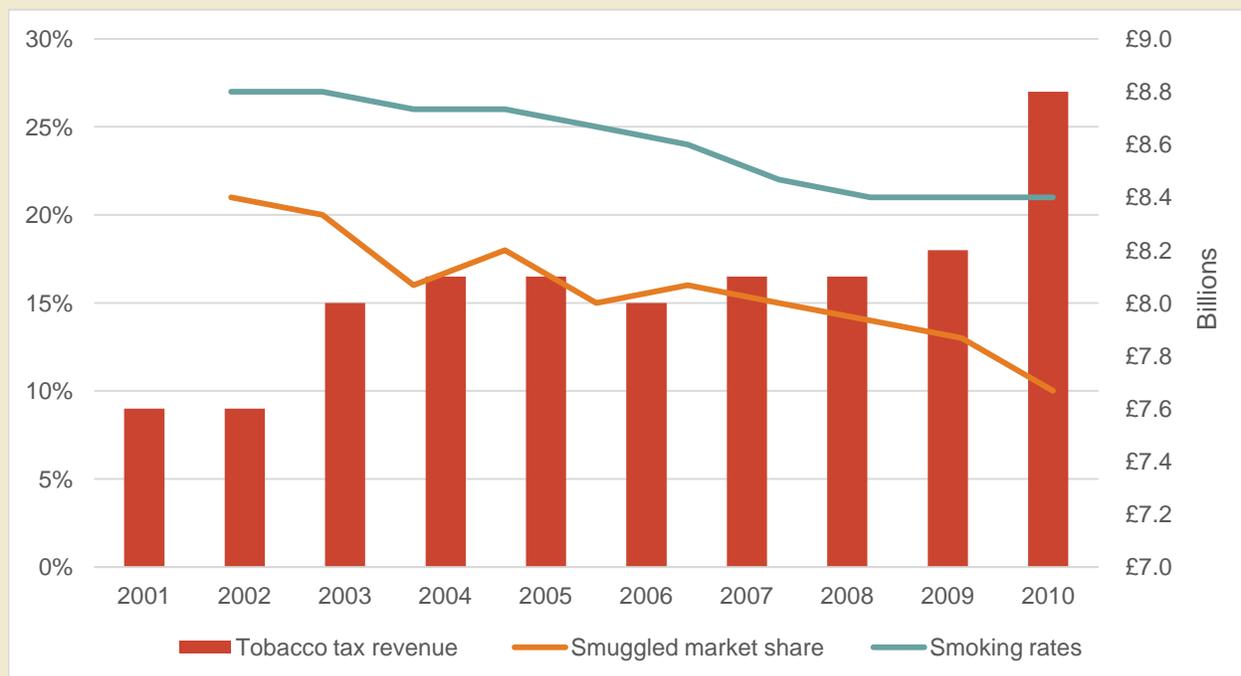
A part of the illicit tobacco strategy was to reduce the overall demand for tobacco products. Thanks to the UK tax policy (the UK has one of the highest tobacco tax rates in the world), the real price of cigarettes rose by 28% from 1998 to 2008. As result

of tax policy accompanied by other tobacco control measures, the smoking prevalence during this period declined from 28% to 21% for adults and from 13% to 6% for children.³⁴ This means that the UK governments successfully combated the illicit cigarette trade while increasing tobacco taxes (Figure 10).

The UK government updated its illicit tobacco strategy again in 2008 with additional resources of £100 million per year and the creation of a new agency, the UK Border Agency (UKBA).^{34,35} The 2008 strategy, jointly executed by HMRC and the UKBA, included enhanced punishment for offenders and stressed the importance of intelligence analysis. Hefty penalties for cross-border shopping/bootlegging proved to be an effective deterrent for casual bootleggers.²⁵ In addition, a public awareness campaign focused on the unknown nature of counterfeit or illicit cigarettes²⁵ and on the availability of illicit cigarettes to children. This campaign purposely

Figure 11

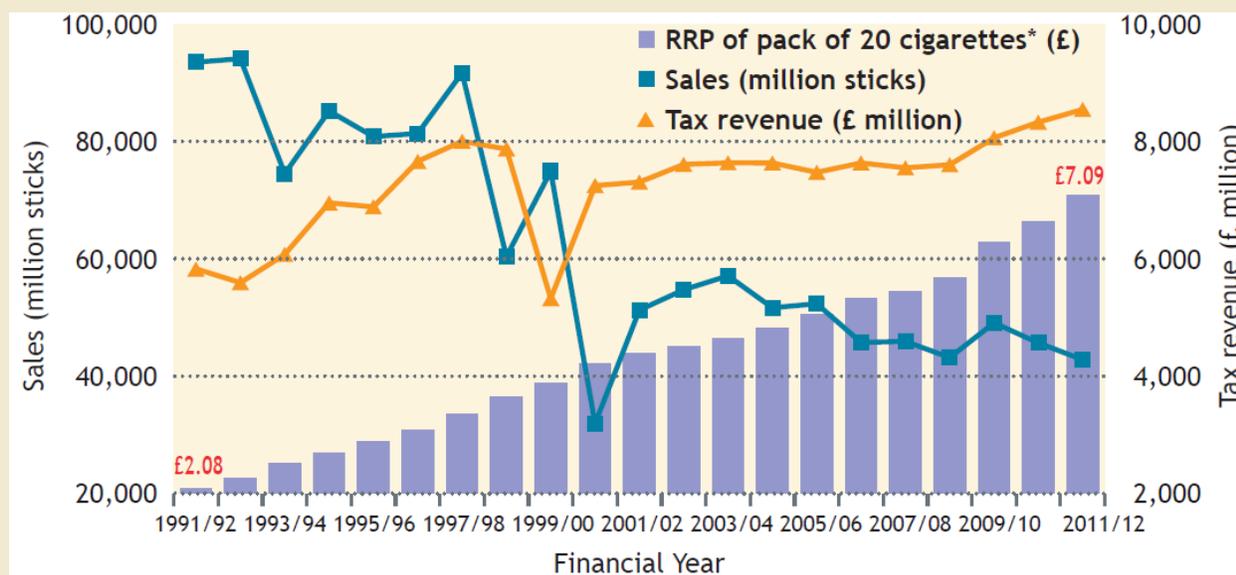
Impact of Anti-Smuggling Measures in the UK



Source: HM Customs & Revenue. ASH.

Figure 12

Cigarette Prices, Sales, and Government Revenue in the UK (1991–2012)



Source: All Party Parliamentary Group on Smoking and Health Inquiry into the illicit trade in tobacco products. ASH UK, 2013.

avoided the “greater harm message” to limit the perception that legal tobacco is healthier. The second phase of the campaign focused on informing business owners of their liability for allowing illicit sales on their premises and encouraged the public to report observed illegal trade.¹⁸

The UK maintained its policy of high tobacco taxes aimed at reducing the overall demand for tobacco products. Tobacco tax rates have increased steadily at a specified rate equal to or greater than inflation since 1992. However, the price increases between 2006 and 2009 were driven almost equally by tax increases (responsible for 52% of the total price increase) and by the industry price strategy (responsible for 48% of the total price increase).³⁹ The industry response to tax increases is inconsistent with its argument regarding illicit trade being driven by higher taxes/prices.

The 2008 strategy resulted in a further decline in the illicit tobacco market and enhanced tobacco tax revenue (Figures 11 and 12, Table 4).

The UK strategy was updated again in 2011 in response to the appearance of illicit whites¹ on the market. It demanded a substantial reinvestment of £917 million,¹⁸ out of which £68.9 million was dedicated for the fiscal year 2011–2012 alone.³⁷ The new strategy consisted of:³⁵

- Targeting and prosecuting the organized criminal gangs involved in illicit tobacco trade;
- Seizing greater volumes of illicit product to undermine the economic incentives to evade taxes;
- Imposing hard punishment (civil and criminal sanctions) on the offenders to deter them from committing future crimes (e.g., seizure of goods, vehicles/vessels, cash, confiscation of assets, imprisonment up to 6 months, financial penalties of up to 100% of the duties owed, travel restrictions for repeated offenders, and

* Illicit white cigarettes are brands manufactured legally, but distributed to a large extent via illegal supply channels for the purpose of evading taxes.

civil action including winding-up orders and bankruptcy);

- Reducing the availability of genuine tobacco products in the illicit supply chain by tight supply chain control, targeting duty-free sales, and reducing minimum allowances of duty-free/imported products for EU travelers;
- Decreasing demand for illicit tobacco products including the development of a new communications strategy to maximize deterrence by stressing that illicit trade is not a victimless crime, and to keep stakeholders informed on the progress controlling illicit trade;¹⁸
- Collaborating with overseas partners, international organizations, and the tobacco industry. The UK expanded the Fiscal Crime Liaison Officer (FCLO) Network whose role is to intercept contraband “upstream” by coordinating with their local partners overseas to facilitate seizures before they enter the United Kingdom.¹⁸

HMRC has overall responsibility for the delivery of the 2011 Strategy, while the UKBA is responsible for the seizure of illicit tobacco at the border.

The latest estimates show that the share of illicit cigarettes on the market continued to drop to about 7% of total consumption in 2011–12, but went slightly up to 9% of total consumption in 2012–13.⁴⁰ The share of illicit hand rolling tobacco followed the same trend: it dropped to its low of 35% of the total market in 2011–12 (a substantial drop from 42% in 2009–2012), but went slightly up to 36% in 2012–13.⁴⁰ The total associated revenue losses reached approximately £2 billion in fiscal year 2012–13,³⁷ a 37.5% decline since 2008–09.

According to the 2013 National Audit Office report, HMRC’s strategy to deter and disrupt the distribution of illicit tobacco is logical and sets out a wide range of complementary measures to tackle the problem. However, a more integrated approach with proper information sharing among all stakeholders, particularly the HMRC, the UKBA, local police forces and partner agencies, has the potential of raising prosecution and arrest rates.³⁷

HMRC’s focus on building overseas intelligence is yielding success. In 2010, HMRC funded an additional 11 overseas intelligence officers, bringing the total to 28. Overseas intelligence officers work with host countries to gather and exchange information on criminal activities including customs fraud. HMRC estimates that these intelligence officers led to the seizure of goods equivalent to preventing a revenue loss of £658 million (815 million Euros) between 2011–12 and 2012–13. In 2012–13 there were 1,858 million cigarettes seized, of which 586 million were in the UK and 1,272 million overseas.⁴¹

The 2013 audit report states that none of the manufacturers has ever been fined for over-supply of products to high-risk overseas markets and criticized HMRC for weak enforcement of the law with respect to tobacco manufacturers. It

Table 4

Illicit Cigarette Market, Tobacco Tax Revenue, and Smoking Prevalence in the UK (2000–2010)

Year	Smuggled market share (cigarettes)	Tobacco tax revenue	Smoking rates
2009-2010	10%	£8.8 bn	21%
2008-2009	13%	£8.2 bn	21%
2007-2008	14%	£8.1 bn	21%
2006-2007	15%	£8.1 bn	22%
2005-2006	16%	£8.0 bn	24%
2004-2005	15%	£8.1 bn	25%
2003-2004	18%	£8.1 bn	26%
2002-2003	16%	£8.0 bn	26%
2001-2002	20%	£7.6 bn	27%
2000-2001	21%	£7.6 bn	27%

Source: HM Customs and Revenue

recommended an immediate review of all historic and ongoing cases against the industry and imposition of penalties.³⁷ As a result of this recommendation, HMRC levied in November 2014 the first penalty on a major tobacco company, British American Tobacco, for oversupplying cigarettes into the low-tax Belgium market so that they could be smuggled back into the UK. The fine was £650,000 (\$1.03 million), only 13% of the maximum penalty.⁴²

The UK currently does not have a track and trace system, but there is a plan to implement Codentify, a system developed and promoted by the tobacco industry in 2015.³⁷

The UK government is among a few countries that provide official estimates of the size of the illicit market and makes the statistics on seizures accessible to the public. These data provide a

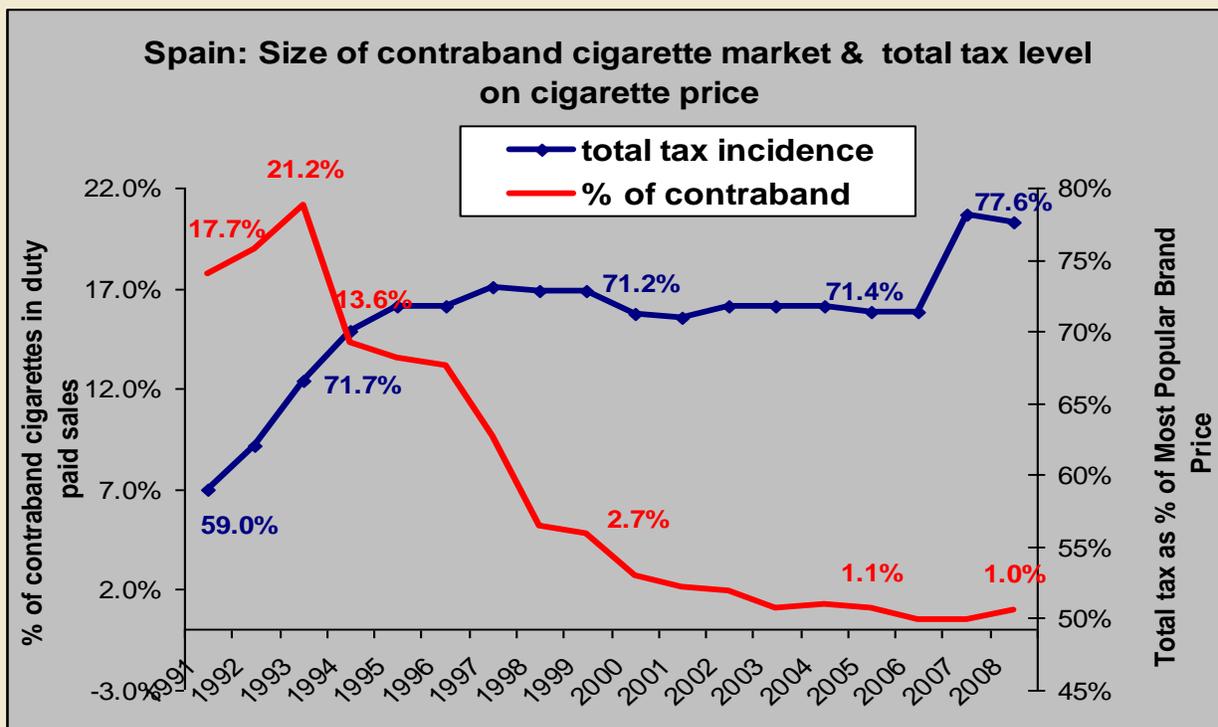
clearer picture of the effects of different policies and the evolving nature of illicit trade. Providing public data on contraband increased public awareness and, by extension, political will to deal with the issue.²⁵

Spain

In mid-1990 about 16% of the cigarette market in Spain consisted of illegal cigarettes. An investigation by the Spanish authorities revealed that the main source of these illegal cigarettes was transnational tobacco companies that supplied Spain via seaports, Andorra, and Gibraltar. In 1996, Spain, in collaboration with other EU member states and EU institutions, implemented an anti-smuggling operation that managed to reduce illicit cigarette consumption from 16% to 2% of total consumption in five years

Figure 13

Cigarette Tax and the Illegal Cigarette Market in Spain, 1991–2008



Source: Chaloupka FJ. Tobacco taxes and tobacco use: global evidence. Regional seminar on tobacco prices, taxes, and illicit trade in tobacco products. Panama City; 10-12 July 2012.

(1996–2001) (Figure 14).⁴³

The main elements of the operation were:⁴⁴

1. Focusing on large scale, container smuggling, not on individual tax avoidance and street sellers;
2. Strengthening of law enforcement and increasing punishment for the offenders;
3. Strengthening tax administration with new technology and better enforcement (e.g., the establishment of local tax administration offices to monitor and collect excise duties, and to issue authorizations; all distributors and retailers selling tobacco products must have a license since the sale of tobacco products is a state monopoly; cigarettes can only be sold through the use of registered machines²⁹);
4. Promoting inter-jurisdictional cooperation and intelligence sharing;
5. Establishing collaboration and cross-border policy mobilization with France, Andorra, Ireland, the UK, and the EU Anti-Fraud Office (OLAF). This allowed for coordinated customs activity in the border regions of Spain and in seaports;
6. Participating in the EU investigation of cigarette smuggling by transnational tobacco companies and preparing for lawsuits with these companies;
7. Continuing with its planned tobacco tax policy.

The operation required additional resources: the anti-smuggling budget was only 4 million Euros in 1993–96, but increased to 40 million Euros in 1996–2000.⁴³

Close collaboration with the authorities of two neighboring countries (Andorra and France), two exporting countries (Ireland and the UK), and the OLAF led to a concerted action at national and European levels. Specific actions included sealing the Andorran border and patrolling valleys and hills by civil guards. At the same time, the European Commission and Member States put political

pressure on the Andorran government that amended its legislation to make smuggling a crime.⁴⁵ Numerous significant seizures with significant fines occurred during that time. For example, in 1998 Spain seized 80 million cigarettes supplied by RJR. RJR refused to cooperate and for the first time the EU formally requested the help of the US government based on a 1997 US-EC customs mutual assistance agreement. The case ended with the conviction of the smugglers. Simultaneously, the ongoing EU investigation into the role of the transnational tobacco companies in the illegal cigarette business managed to stop the supply of these cigarettes to European markets.

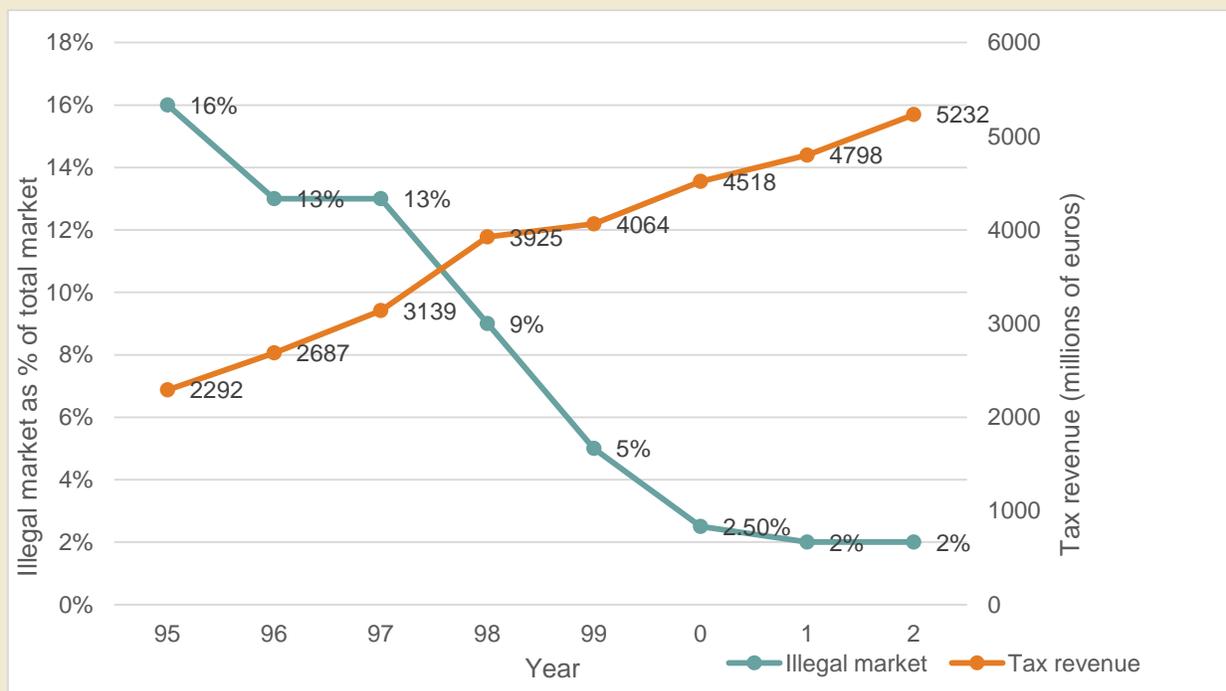
In order to control illicit domestic production, tobacco manufacturers must submit a detailed description of the production plant (including machines and processes) and communicate the yields derived from the quantity of raw materials used in the production process. This represents the basis for identifying possible differences in the volume of the final output.²⁹

While fighting the illicit cigarette trade, Spain did not give in to pressure from the tobacco industry to lower tobacco taxes. In fact, Spain increased cigarette excise tax right at the beginning of the operation: by 20 percentage points and 5 percentage points on black and blond brands, respectively, in 1996, and by 18 percentage points and 17 percentage points on black and blond tobacco, respectively, in 1997 (Figure 13).⁴⁶

As the sources of the smuggled product diminished,²⁵ the sale of legal cigarettes and tax revenue began to grow: between 1997 and 1998 legal sale increased by 14% and tax revenue increased by 25% without any change in the tax rate.⁴⁷ Excise tax revenue kept increasing until 2002 (with no change in cigarette tax rates⁴⁸) while the share of illicit cigarette products on the market went down to 2% and continued to decline (Figure 14).

Figure 14

Cigarette Tax Revenue and the Illegal Cigarette Market in Spain, 1995–2002



Source: Joossens L, Raw M. Progress in combating cigarette smuggling: controlling the supply chain. *Tob Control* 2008;17:399–404.

The impact of the reduction of smuggling on smoking prevalence was mixed: smoking prevalence among women remained stable at 27% in 1995 and 2000–2001, but decreased among men from 47% in 1995 to 42% in 2000–2001.⁴⁵

A 2014 OLAF report suggests that the illicit tobacco market in Spain has re-emerged and is fueled by contraband originating in Gibraltar. Despite this recent development, Spain's success in reducing participation in the illicit tobacco market from the early 1990s to 2000 is noteworthy.¹⁸

Italy

Italy began to experience serious cigarette smuggling in the second half of the 1980s and by

the early 1990s the share of illicit cigarettes on the market reached between 10% and 30%.⁴⁹ The illicit cigarette business was concentrated mainly in southern provinces where criminal organizations took advantage of access to the Adriatic Sea. The illicit market consisted primarily of cigarettes manufactured in the USA, especially Marlboro. These cigarettes were exported to the ports of Antwerp in Belgium under the “transit” regime, then transferred to illegal warehouses in countries across the Adriatic from Italy such as Montenegro, and eventually transported at night via speedboats across the sea.⁴³

In response to this tax-evasion scheme, Italy banned the sales of Marlboro in 1992, because Phillip Morris (PMI) was suspected of aiding the smuggling operations. However, the ban was soon lifted because of insufficient evidence, but the government signed an MOU with PMI in the same year hoping that it would prevent cigarette smuggling. Unfortunately, the MOU was not effective and only created “an illusion of good collaboration.” By 1998 the European Community began investigations of the smuggling schemes and in November 2000 filed a civil action against Phillip Morris and RJ Reynolds. In 2001 ten EU countries, led by Italy, joined the lawsuit.⁴³

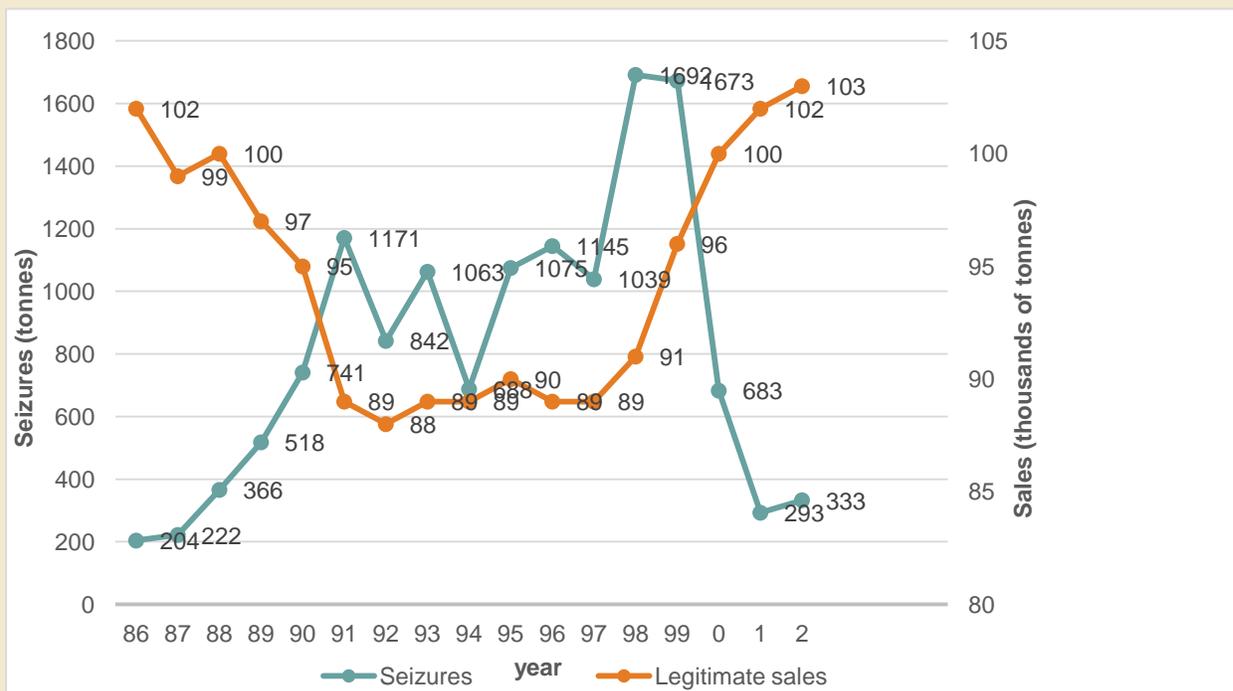
Coincidentally, the NATO intervention in Kosovo in 1999 blocked the navigation of the Adriatic Sea, which was subsequently followed by stricter control of the Italian coast and enhanced enforcement by custom authorities. This made the transport of illicit cigarettes to Italy more difficult.⁴⁹

As a result of the lawsuit and the war in Kosovo, the supply of illicit cigarettes to Italy declined substantially. Cigarette exports from the USA to the port of Antwerp fell from 49 billion in 1997 to 3 billion in 2001. At the same time cigarette seizures fell dramatically and legal sales began to rise (Figure 15). From 1998 to 2000 there was a 19% increase in the sale of legal foreign brands. The increase was particularly noticeable in the provinces of Campania and Puglia where legal foreign cigarette sales increased by 121% and 55%, respectively. The estimated illicit cigarette market share fell from around 15% in the 1990s to 1–2% in 2006.⁴³

Italy currently uses a tax stamp placed directly on cigarette packs that can identify the producer/importer of the pack. Since the sale of tobacco products in Italy is a state monopoly, the distribution is dominated by one single firm. Connecting to this firm’s IT system allows the tax administration to get real-time data on the stocks of

Figure 15

Cigarette Seizures and Legitimate Sales in Italy, 1986–2002



Note: PMI lawsuit filed in November 2000.

Source: figure is based on data from Guardia di Finanza annual reports, 1986 to 2003,⁴⁴ and Italian Institute for Statistics (2008).⁴⁶

tobacco products in different premises. All retailers selling tobacco products must have a license that is issued by local tax administration offices that also monitor and collect excise duties.²⁹

Government officials are permanently stationed at the manufacturer’s premises to keep track of the movements (inflows/outflows/losses/destruction) of all the products/raw materials and calculate the amount of products (i.e., the excise duty debt) released for consumption. The officials are hosted in separate, high-security rooms equipped with the necessary IT tools and structured in a way such that they have a complete control of all the areas of the facility. The manufacturer bears the costs related to providing the facilities and the equipment for the government officials.²⁹

Hungary

Given its geographical location at the eastern border of the European Union, Hungary is both a

destination and a transit country for illegal cigarettes from Eastern Europe and the Balkan countries. In 2005, illicit cigarettes reached 20% of the total market.⁵⁰

In response, the Hungarian Customs and Finance Guard (VPOP) developed and implemented a 2005 action plan. It consisted of employing additional staff, adding new security elements on excise stamps, using new technologies at the borders (e.g., X-ray gates to screen all rail cargo from Ukraine and mobile X-ray units for the control of trucks and containers), modernizing the training of staff and detector dogs, and reinforcing control over its borders’ territory.⁵⁰ The new plan provided direct and automatic financial incentives to customs and policy officers for detecting illegal cigarette shipments. Newly created mobile teams had a mandate to examine cigarettes anywhere inside the country. The new field management style included fast reactions to changing smuggling patterns,

Figure 16

Total Volume and Share of Illicit Cigarettes in Hungary, 2006–2013



Source: KPMG. Project SUN. A study of the illicit cigarette market in the European Union; 2013.

detailed control protocols issued and explained to the frontline customs officers, and strict controls by line managers.⁵¹ The VPOP has also signed a memorandum of understanding with the Hungarian Association of the Tobacco Industry (HATI) in 2004, and with BAT in 2005 to combat illicit tobacco trade.⁵²

In 2009, Hungary limited duty-free import to 2 packs per person, and in 2012 limited the duty-free import to one occasion per week to tackle “ant smuggling.”⁵¹ In addition, retailers have been requested to submit daily reports on the level and composition of their sale to enable the tax authority to monitor the consumption patterns. VPOP also enhanced cooperation with police, immigration authorities, and the tobacco industry.⁵⁰ Bilateral cooperation with law enforcement authorities was established with Romania and Ukraine in addition to multilateral cooperation with EU institutions such as OLAF and Europol.⁵¹ And in 2011, VPOP merged with the Hungarian Tax and Financial Control Administration to create the National Tax and Customs Administration of Hungary.⁵³ Its investigative activities are facilitated by the possibility to search and analyze all the data in connection with misuse of excise tobacco products.²⁹

Thanks to the action plan, both importing illicit cigarettes from abroad and their domestic illegal manufacturing have become increasingly difficult.⁵⁰ As result, the share of illicit cigarettes on the market declined from 20% in 2005 to 3.8% in 2011 (Figure 16).⁵⁴ The success of this operation has become a benchmark for other countries.⁵⁰

In 2012, Hungary introduced new tax stamps with special security features and two-dimensional Data

Matrix codes with unique serial numbers to allow for tracking and tracing of the products by connecting them to the central database. The system is operated by a consortium led by Állami Nyomda (State Printing House Plc.).⁵⁵ The request for tax stamps needs to be done via an online request, which provides the tax authority with real-time data on the number of tax stamps available to each operator. The electronic data on use of tax stamps are used in combination with the system for the declaration of tax payment to secure the collection of revenues.²⁹ In 2013, Hungary made tobacco retailing a state monopoly and issued a limited number of 20-year concessions for a flat fee.⁵⁶

The volume of illicit cigarette consumption declined further in 2012, and rose again slightly in 2013 (Figure 16). Nevertheless, both the share of illicit cigarettes on the market and the total volume of illicit cigarette consumption remain small relative to 2006.⁵⁴

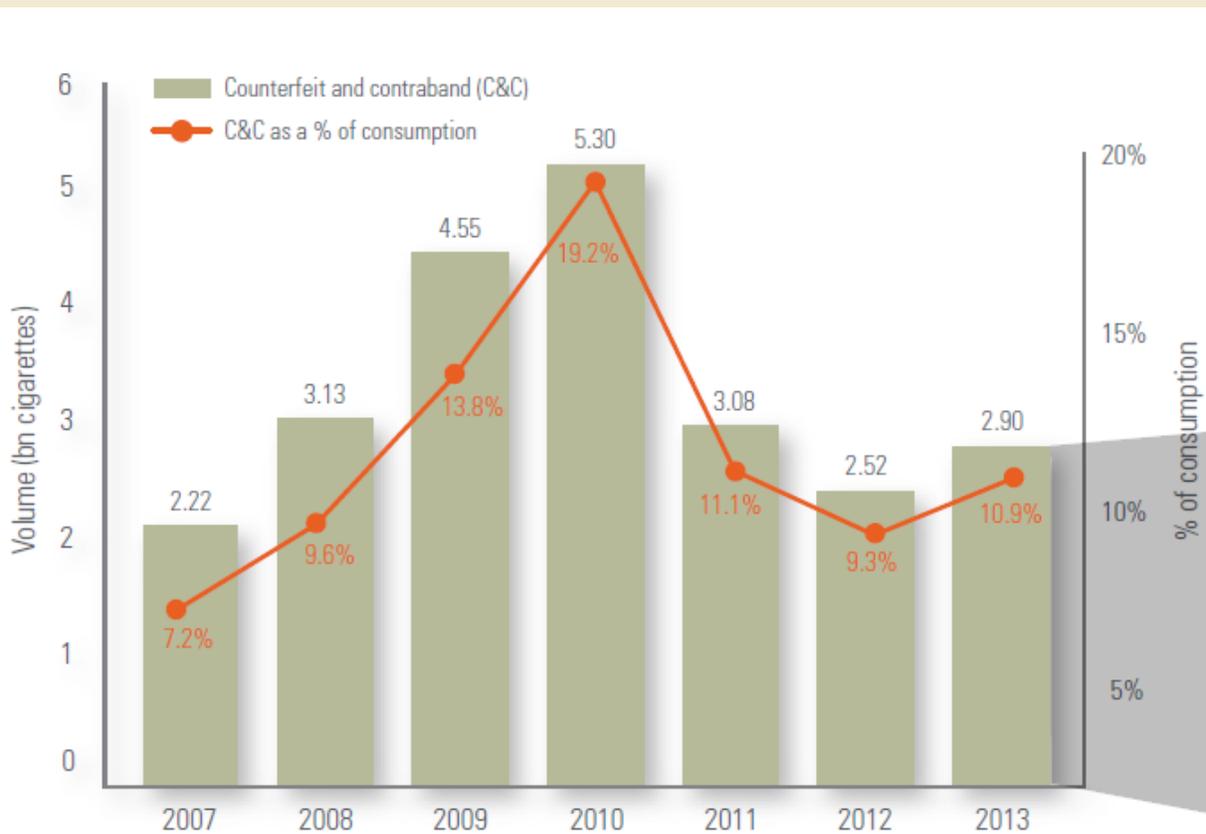
Romania

Despite the 2007 memoranda of understanding with British American Tobacco and JT International to prevent and combat tobacco smuggling,⁵⁷ the share of illicit cigarettes on the Romanian market continued to rise until 2010 (Figure 17).

In 2010, the share of illicit cigarettes on the market was between 19.2% and 30%^{51,54,58} and the majority of the untaxed products were coming via porous borders with neighboring non-EU countries. The highest degree of illicit cigarette penetration was in the provinces that border Serbia, Moldova, and Ukraine.⁵⁹

Figure 17

Volume and Share of Illicit Cigarettes in Romania, 2007–2013



Source: KPMG. Project SUN. A study of the illicit cigarette market in the European Union. 2013.

The Romanian government implemented a national illicit trafficking strategy in 2010 with the goal of reducing the level of illicit tobacco on the market by creating a better legislative framework, strengthening the administrative capacity of Customs, investing in border security, and improving inter-institutional collaboration and cross-border cooperation.⁵¹

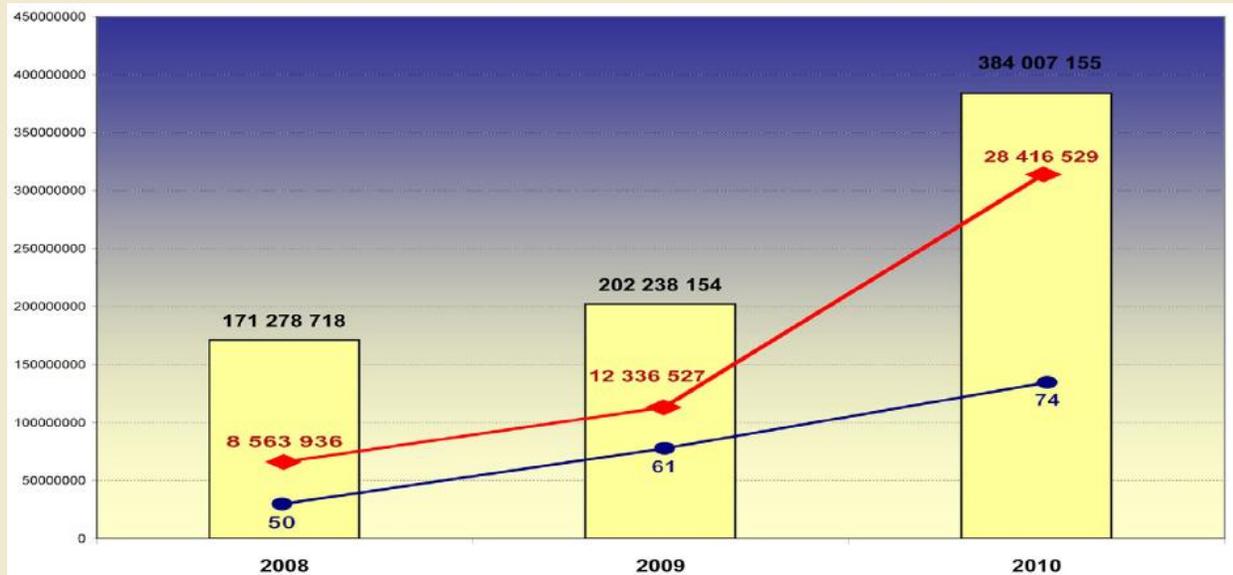
The 2010 strategy was updated in 2012 to focus on internal alignment of Customs, the Financial Guard, Border Police, and the Intelligence and Internal Protection services. The key feature of the updated strategy was strong support from high-level decision makers and ministers, and commitment from heads of agencies. The High Council set the prevention of tax evasion as its top

priority. The main elements of the 2010 and 2012 strategies were:⁵¹

- changing laws and regulations to allow the seizure of vehicles modified for smuggling purposes;
- restricting duty-free imports;
- redefining the terms ‘smuggling’ and ‘excise fraud’ to allow more effective investigation and prosecution;
- restricting the ability of tax free shops to sell duty-free cigarettes at the land border crossings to Romania;
- passing new legislation to allow financial institutions to cooperate with Customs and release information needed to ensure efficient intelligence, investigations, and prosecution;
- speeding up of court proceedings related to cigarette fraud;

Figure 18

Cigarette Seizures, Excise Duty Loss Averted, and Tax Level in Romania (2008–2010)



Notes: The red line represents the tax value of the seized cigarettes in Euros, blue line shows excise duty on 1,000 cigarettes. Cigarette seizures are represented by the bar.

Source: Nagy J. Tackling cigarette smuggling with enforcement: case studies reviewing the experience in Hungary, Romania and the United Kingdom. *World Custom Journal*. Volume 6, Number 2. September 2012.

- amending legislation to allow for thorough investigation of excise fraud committed by foreign citizens;
- criminalizing the marketing and selling of excisable goods inappropriately marked or without proof of origin;
- introducing advanced adhesive tax stamps with a unique serial number, a bi-dimensional bar code, the name and the SEED number (or Country code and the VAT number in the case of registered consignees) of the economic operator, a generic product code, a hologram and other security features such as background aura and microtext. The scanning of the bar code allows access to metadata encrypted in the stamp;²⁹
- implementing a new monitoring and risk management system;
- establishing an explicit legal duty to destroy all confiscated cigarettes;⁶⁰
- releasing yearly data on illicit tobacco seizures by the General Directorate of Custom.

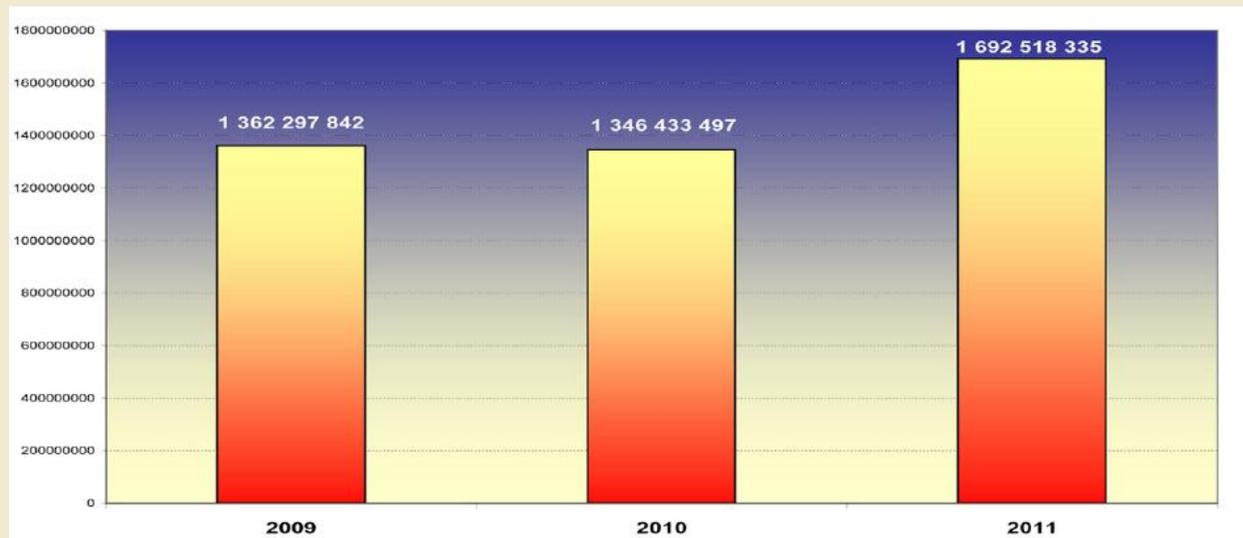
The implementation of the strategy involved the training of cigarette detector dogs, the deployment of 38 new canine teams, installation of new X-ray scanners to support faster and non-intrusive customs control, creation of 110 mobile units equipped with new vehicles and communication tools, and creation of joint customs/police anti-smuggling teams. The reorganization of the customs service in July 2010 further enhanced the effectiveness of the operation.⁵¹ All tobacco manufacturers and importers need to have a license that is subject to renewal every 3 years.²⁹

Cooperation with domestic law enforcement agencies, relevant agencies in neighboring countries, and the EU was instrumental in achieving success, particularly in managing the central cigarette seizure database, gathering quality intelligence, and fighting corruption.⁵¹

The implementation of the strategy resulted in an immediate increase in the quantity of illicit

Figure 19

Excise Tax Revenue (in Euros) in Romania, 2009–2011



Source: Nagy J. Tackling cigarette smuggling with enforcement: case studies reviewing the experience in Hungary, Romania and the United Kingdom. *World Custom Journal*. Volume 6, Number 2. September 2012.

cigarettes seized (Figure 18), decline in volume and share of illicit cigarettes on the market (Figure 17), and in an increase in tax revenue (Figure 19).

In 2011, 28 immigration officers were prosecuted for corruption related to illicit tobacco trade. They were sentenced to prison for 120 cumulative years and fined RON25 million (US\$ 7 mil) in total. This was the biggest operation of this kind in Romania since 1990.⁵⁹

By 2013, illicit trade represented 11.4% of the cigarette market, about a 57% decline since 2010.⁵⁹ This reduction in the level of illicit trade has been achieved while cigarette excise taxes have been steadily increasing during the entire period.⁶¹

Turkey

Illicit trade in Turkey increased after the introduction of an excise duty in 2002. Before 2002, the government estimated that the illicit cigarette market in Turkey amounted to about 3.9 billion cigarettes a year, but in 2007 the government increased that estimate to 10 billion cigarettes a year, about 10–15% of total

consumption. This represented an annual loss of about US\$ 1 billion in tax revenue, about 9% of total tobacco tax revenue.⁶²

Since 1997 the government has required all producers or importers to apply a tax stamp on each cigarette pack. The system was enhanced in July 2007 when Turkey was the first country in the world to adopt a tracing system for tobacco products, spirits, beer, and soft drinks, managed by SICPA-Assan, a joint venture of SICPA and a Turkish partner. The system allowed for limited tracking. The initial contract with the system provider was for 5 years.

The new law required all packs sold in Turkey as of November 2007 to have a digital stamp with a 2D DataMatrix that uses invisible ink and carries a unique serial number for each cigarette pack.

The stamp's overt security features allow consumers to verify the authenticity of a product while the covert features used during the stamp's activation allow for state audit.⁶³ The stamps are applied and activated at both domestic

manufacturing sites and, in the case of imported cigarettes, at manufacturing sites abroad.⁵

Data stored in the stamp can only be read using SICPA scanners.¹¹ There are 4 types of scanners: at the production line, mobile audit scanners for enforcement officials, hand terminal scanners for distributors, and cash register scanners installed at a small number of retail outlets to help with the audit.

The logistics of the tobacco tracking system for locally produced cigarettes for domestic consumption is as follows:⁶³

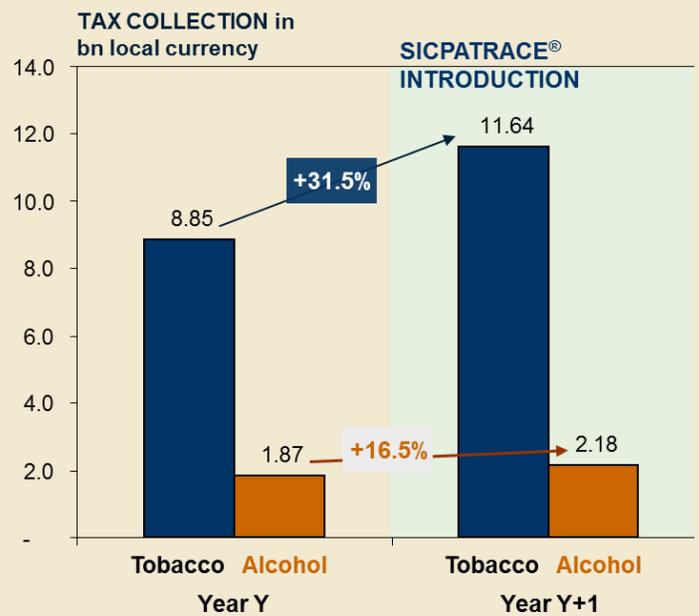
1. Banderols are printed by the government and coded by SICPA. A banderol is a paper of value, which means that falsifying, copying, trading, or altering of a banderol, or the producing, importing, or deliberate using of falsified or altered copies of the banderol constitutes a criminal offense.⁶²
2. Once a manufacturer places an order for stamps, the government approves it and SICPA delivers the stamps to the manufacturing facility.
3. The stamp's invisible code is activated using a SICPA scanner as the stamps are placed on all packs at the manufacturing facility.
4. The products are delivered to wholesalers who use hand terminal scanners to verify the authenticity of the products. The products are distributed to retail stores.
5. Retail stores are randomly inspected by government auditors who use the SICPA mobile-audit scanners that automatically deliver data to the government data center and generate a report. This eliminates the opportunity for bribes since the evidence is automatically generated and is beyond the control of the audit officers.

Products destined for export are marked similarly and are randomly inspected by Customs at the border instead of in retail stores.⁶³

In the case of imported products, an importer orders the banderols, the government approves the order, and the stamps are delivered to the importer who delivers them to the production facility abroad where they are activated at the production line. The

Figure 20

Impact of Implementing SICPA Tracking System for Tobacco and Alcohol, 2007–2008



Source: Turkey Ministry of Finance, Revenue Office, 2009.

products are then randomly inspected at the border and at stores and a report is automatically sent to the government data center in Turkey.⁶³

If the authorities find a tobacco product on sale without a banderol, the retailer is liable for both the taxes and a penalty equal to the amount of taxes for the illegal sale.

The banderol system enhances product security, and allows for tax planning and accounting control.⁶³ More than 5.7 billion cigarette packs are annually secured by the SICPA system.⁵ The unit price of a banderol is TL 0.00570 (US\$ 0.00436) for both imported and domestically produced tobacco products.⁶²

Within the first year of the system's operation, tobacco tax revenue increased by 31.5% (or by US \$1.8 billion), and it went up by 83% from 2006 to 2011 (Figure 20).⁶⁴ According to SICPA, illicit

Table 5**Tobacco Excise Tax in Turkey, 2002–2012**

Year	Excise Taxes (end of year)		VAT Burden (%)	Total Tax Burden (%)
	Ad Valorem (%)	Minimum Specific Tax Per Pack		
2002	49.5		15.25	64.8
2003	55.3		15.25	70.6
2004	28	Plus 0.35 – 1.00 TL	15.25	71.6
2005	58	or 1.20 TL	15.25	75.5
2006	58	or 1.20 TL	15.25	74.6
2007	58	or 1.55 TL	15.25	73.5
2008	58	or 1.55 TL	15.25	73.3
2009	58	or 2.05 TL	15.25	74.1
2010	63	or 2.65 TL	15.25	78.5
2011	65	or 2.90 TL	15.25	79.3
2012	65	or 2.90 TL	15.25	80.3

Source: Tobacco Banderol System Application in Turkey. Presented by Unal Tayyan from the Turkish Ministry of Finance at 10th AFACT Conference, 20 August 2013.

tobacco trade dropped by 11% from 2007 to 2011.⁶⁵ However, Euromonitor reports that the volume of illicit cigarettes consumed in Turkey increased by 8% during the same period, reaching 17.5% of total consumption in 2011.¹⁷

The Turkish government renewed and expanded its contract with SICPA-Assan in 2014. In addition to all products for the domestic market, the contract now also covers cigarettes for export. This feature will support enforcement activities of foreign governments to control fraud. Further, the 2014 contract adds a new feature that allows end consumers to verify that a product is legitimate using, for example, a smartphone app to validate the authenticity of the tax stamp. The new contract will also enable better tax forecasting, covering the short, medium, and longer term. However, even the new contract still offers only limited tracking capability because the focus of the Turkish

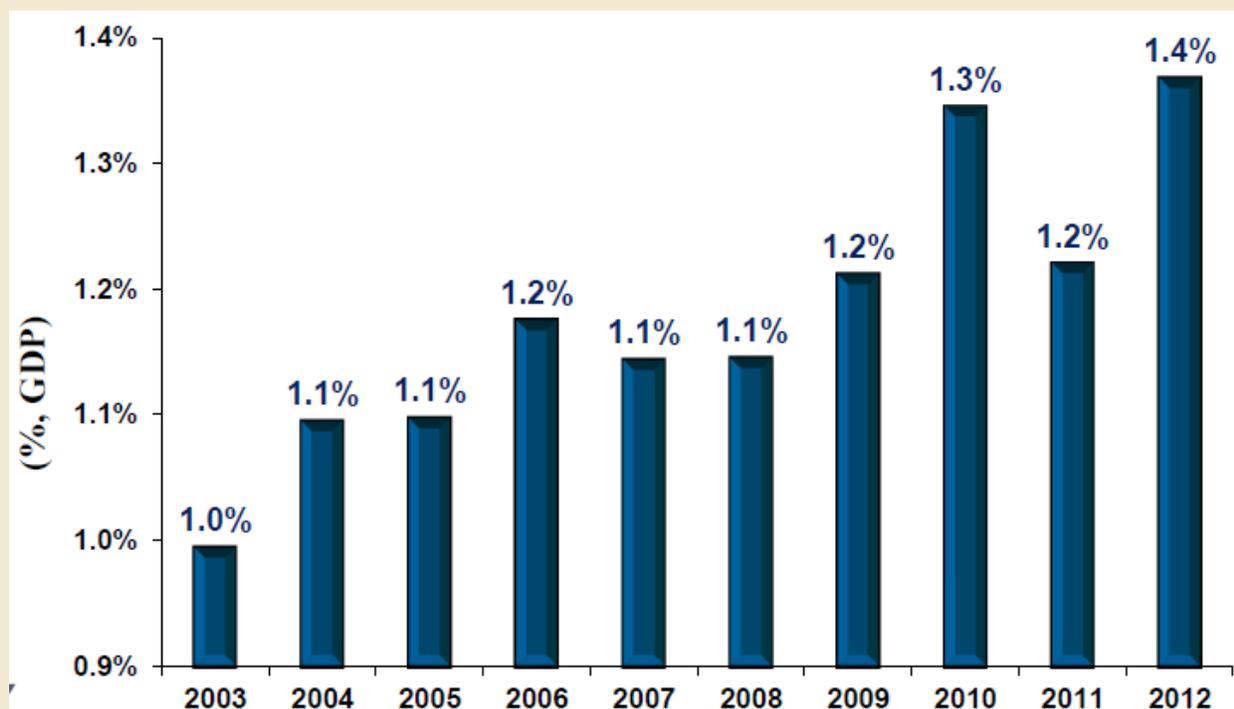
government is tax collection. A compatible SICPA tracking module is available and could be added to upgrade the system to a full track and trace solution.

In addition to addressing illicit tobacco consumption, the Ministry of Health launched the National Tobacco Control Program on 12 December 2007. The Program was prepared by 130 members of nongovernmental organizations and incorporated all the elements required for a successful reduction in tobacco consumption including banning tobacco advertising, raising taxes (Table 5), providing a smoke-free environment, and warning the public about the health hazards of smoking.⁶²

The combination of tax policy, other tobacco control measures, and the implementation of the tracing system led to further increases in tobacco

Figure 21

Tobacco Excise Tax Revenue as % of GDP in Turkey, 2003–2012



Source: Tobacco Banderol System Application in Turkey. Presented by Unal Tayyan from the Turkish Ministry of Finance at 10th AFACT Conference, 20 August 2013.

tax revenue while smoking rates declined. Between 2006 and 2010, overall daily adult smoking prevalence declined from 33.4% to 25.4%.⁶³ Figure 21 shows tobacco tax revenue as % of GDP. Real GDP in Turkey was growing on average by 5% a year during this period.⁶⁶

Turkey updated its action plan to combat illicit tobacco trade in 2011–2013 with revenue authorities being responsible for its implementation and execution. The plan called for a higher frequency of investigations and cross-border controls, higher penalties for involvement in illicit trade, and close cooperation among the revenue authorities, Ministry of Justice, Ministry of Foreign Affairs, Ministry of Economy, and Ministry of Internal Affairs.^{63,67}

The results of this action plan are inconclusive. According to MS Intelligence, a private market research company working primarily with the tobacco industry, the share of illicit cigarettes on

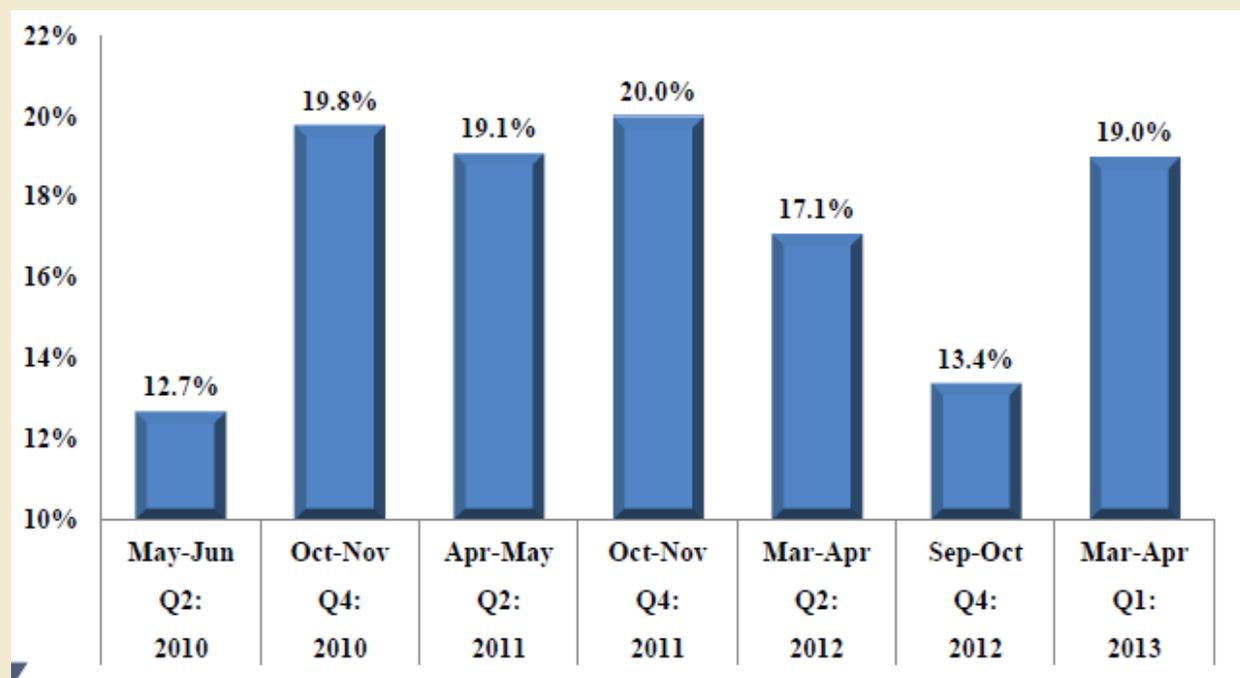
the market fluctuated between 12.7% in the second quarter of 2010 and 19.0% in the first quarter of 2013 (Figure 22). These estimates are based on the empty pack survey method with methodological details not being disclosed.⁶³

Even though the SICPA system used in Turkey is a sophisticated solution for the domestic market, it does not meet the requirements of an international tracking and tracing regime because it does not use international serialization standards, does not allow for international data exchange, its codes are not human readable, and aggregation (i.e., linking of a master case to a carton to a pack) does not take place because only cigarette packs are marked.¹¹

Turkey is also struggling with a high level of corruption, weak customs, slow judicial process, low penalties for offenders, and insufficient communication and collaboration with neighboring countries.⁶³

Figure 22

Estimates of Illicit Cigarette Market Share in Turkey, 2010–2013



Source: Empty pack survey by MS Intelligence⁶³

According to the 2014 Interpol report, Turkey has a Codentify system that allows it to track and trace.⁶ However, only very few randomly purchased 64 cigarette packs in Turkey in September 2013 had Codentify codes.⁶⁸

Albania

The estimates of the share of illicit cigarettes in Albania vary greatly. The tobacco industry reported that up to 72% of the total cigarette market was illicit in 2001, while a WHO report placed that estimate in the 40–50% range in 2007. However, results of 2009 and 2010 surveys suggested that only 7% and 8.1% of smokers consumed illicit cigarettes, respectively.^{69,70}

In late 2009, following an unsolicited proposal from SICPA, the government opened a tender for a 35-year concession for a track and trace system based on excise revenue stamps for alcohol, beer, and cigarettes. Following the announcement, the

parliament amended the excise tax law that had made fiscal stamps a “state monopoly,” allowing their outsourcing to a private company upon parliamentary approval.⁷¹

Only two companies participated in the tender: SICPA and De La Rue Security. After the Ministry of Finance disqualified the lower bid by De La Rue Security on technicalities, SICPA was awarded an exclusive 10-year contract to supply revenue stamps for tobacco, spirits, wine, beer, and pharmaceuticals in Albania in 2010.¹³ De La Rue appealed the decision, but it was upheld. Tobacco companies operating in Albania have also complained through the Albanian-American Chamber of Commerce, the Ministry of Finance, and to the Prime Minister that the tender was not transparent, but received an “unsatisfactory response.” The cigarette companies argued that SICPA’s track and trace system would increase the price of local stamps several fold, a cost that would be passed on to consumers.⁷¹

The track and trace system in Albania deployed in October 2011⁷² uses a two-dimensional data matrix, printed either on the tax stamp (for cigarettes) or directly on product packaging (beer) with inks invisible to humans but readable by a pocket PC-based scanner. Data contain the name and address of the distributor affixing the stamp, the date the stamp was affixed, and its denominated value. The stamp is proof that the government's tax has been paid and that the product is authentic. All local manufacturers and importers need to be registered via a secured website, which allows for better management of fiscal stamps and traceable information embedded in the digital tax stamps. In 2012, the Albanian Custom Administration also signed a memorandum of understanding with Japan Tobacco International to combat the illicit tobacco trade.⁷³

Critics argue that the SICPA system in Albania is both expensive and probably ineffective because it requires a tight and highly secure distribution chain, which is difficult to set up in less developed countries like Albania.⁷⁴ In addition, SICPA's system primarily addresses the illicit sale by local manufacturers, whereas illicit cigarettes in Albania are mostly smuggled from abroad and therefore cannot be traced to their sources once a seizure is made.

Nevertheless, within the first 2 years of the implementation of the SICPA system, tax payer registration improved by 129% and the Albanian Customs Administration uncovered 50 cases of counterfeiting, recovering 71.73 mil ALL (US\$ 0.7 mil) of unpaid taxes and imposing a 183.81 mil ALL (US\$ 1.74 mil) fine.⁷⁴ The recovered taxes and fines amounted to 0.02% of Albanian 2013 GDP. From March to December 2012, local beer production increased by 50% in comparison to the same period in 2011.⁷⁴ There are no recent estimates of the share of the illicit cigarette market in Albania that would allow assessment of the effectiveness of the system in terms of overall illicit cigarette consumption.

Even though SICPA claims that it has implemented a fully functional tracking and tracing system, according to the WHO it only covers some aspects

of authentication (determining whether the product is counterfeit or not and how much has been produced) and does not fulfill minimum tracking requirements under the FCTC regime because the codes are not readable without a special device and the markings are not in line with international coding serialization standards.⁷¹

Kenya

With its porous coastline and expansive dry land borders, Kenya is an illicit transit point for the East African region, with Sudan, Uganda, and the Democratic Republic of Congo being the main target destination markets.¹⁷ Tanzania is the main source of contraband, in addition to domestic illicit cigarettes that are declared fraudulently for export and then reenter the domestic market.⁷⁵ Kenya has also been dealing with undeclared domestic production, unaccounted for exports, undeclared imports of raw tobacco and finished products, counterfeited products, and under-declared tax values.⁷⁶

ERC Group estimated that illicit cigarettes accounted for 20% of the total cigarette market in 2007, which amounted to about 1.5 billion cigarettes.⁷⁵ Euromonitor reported a much smaller, but growing illicit cigarette market: 11.3% and 13.5% of total consumption in 2006 and 2012, respectively. These estimates are closer to the 2008 BAT estimates of 8–12% illicit cigarette market penetration.⁷⁷ By 2010, ERC adjusted its estimate of illicit cigarette market share down to 12%,⁸⁹ but BAT adjusted their estimates in the opposite direction claiming that the illicit trade reached 20% by the end of 2011.⁷⁸ None of the three companies disclosed the methodology of generating these estimates and an independent estimate of the illicit cigarette market share in Kenya does not exist.

After auditors revealed serious tax avoidance and evasion schemes in 2003, Kenya introduced paper tax stamps on all cigarette packs. The stamp that served as a proof of payment had a serial number and a unique identifier for a particular type of cigarette. An orange stamp was for filter cigarettes

and a green stamp was for non-filter cigarettes. The manufacturers were required to submit a monthly report on the usage and stocks of these stamps. The stamps were affixed at the manufacturers' premises or at the premises of a foreign manufacturer in the case of imported cigarettes.⁷⁹ However, these tax stamps were easy to counterfeit or steal, had to be counted manually (which led to inaccuracies), and could not be linked to a particular brand and quantity of production. This made the stamps inadequate for tax accounting and enforcement purposes.⁷⁹

In 2010, Kenya enhanced the security features of the tax stamps and required their verification at four points in the supply chain.⁷⁷ In the same year, Kenya improved licensing controls, overhauled its accounting system to better track cigarette production, and launched electronic cargo monitoring systems that track cigarettes produced for export and goods in transit with the help of bilateral information sharing.

Since 2010, all local manufacturers are required to be licensed and all tobacco importers are required to be registered by the Kenya Revenue Authority (KRA). Tax officers carry out periodic checks on production to determine how many production lines are active, what raw materials are being used, and to compare the input material with the actual output.⁷⁹

The cargo monitoring system involves the oversight of loading and tracking of all product removals. The export vehicles are sealed to ensure that items intended for export exit the country and the cargo reaches the intended destination before any tax remissions or refunds of the excise and VAT are granted. The electronic cargo tracking system was provided by the Chinese company Ascend and uses radiofrequency ID (RFID) electronic seals to secure the container or trucks doors.⁷⁶ It is complemented by GPS/GPRS technologies,⁷⁶ which enables sending and receiving of data through digital cellular communication about the location of the vehicle at any time.⁷⁶ This ensures that trucks keep to the designated route and reach the intended destination. Any deviation in excess of 50 meters on

either side of the route or tampering with the seal generates an alert.⁷⁶ The cargo dispatch information is sent to the relevant authority in the importing country and confirmation of imports is sent back to the Kenyan authorities. This information supports joint operations at the border, including patrols.⁷⁹

The cargo monitoring system reduced the number of checkpoints, the associated staffing needs, as well as insurance costs thanks to improved security.⁷⁶ It allows the revenue authorities to screen out companies that claim abnormally high tax refunds on exports.^{80,81} As a result of this new monitoring system, exports to some foreign markets have been discontinued and some companies ceased to export tobacco products due to the lack of evidence that the imports have been received.⁷⁶ After the system's implementation, the sale of legal cigarettes increased by up to 30% in the Western border areas.

Measures addressing the illicit cigarette trade were introduced simultaneously with a major overhaul of the tobacco tax system. The specific tax rates were increased in 2010 by 40% and 25% depending on the type of cigarettes, while in 2011, specific tax rates were replaced by ad valorem tax rates with a specific floor (KES 1,200, about US\$ 10 per thousand cigarettes or 35% of retail selling price, whichever is higher).⁷⁶ Therefore, it is not possible to separate the impact of illicit trade measures and tax changes without reliable data and rigorous analysis that would take into account not only the policy changes (e.g., new tax rates, changes in the tax structure, changes in tax administration), but also societal factors such as the level of corruption, existence of informal distribution channels, income change, etc.⁷⁷

Nevertheless, a representative of BAT Kenya reported in early 2012 that the illicit cigarette market share dropped to 8% of the total market and attributed the decline to the government effort to address illicit cigarette trade. BAT particularly praised the simplified ad valorem tax system that made tax calculations easier and increased the level of compliance.⁸²

Even though the KRA issued a tender for implementing a tracking and tracing system in 2008, its implementation was held up by legal issues until December 2012 when SICPA won a five-year contract for tobacco and alcohol products worth close to KES732 million (US\$ 9.5 million) annually. Other bidders included three Indian firms (Madras, Holistic, and Security Printing Press), De La Rue of UK, Authentecs Inc. of the US, and EDAPS of Ukraine.^{78,83}

The tracking and tracing system is planned to be implemented in 3 phases and will apply to both domestic and imported products, relying on SICPA's experience in Brazil. It will allow for production accounting, tracking and tracing, forecasting and processing of stamps, accounts management, stock control, tax forecasting, and collecting other business intelligence. Before implementing the new system, KRA consulted with the Kenya Private Sector Alliance and the Kenya Bureau of Standards.

The first phase of the tracking and tracing system involved the launch of electronic digital stamps that serve as proof that both excise tax and VAT have been paid. The new stamps were launched in April 2013 and have overt security features for the general public (e.g., holograms, color shifting), semi-covert security features for use by stakeholders in the supply chain, covert security features (e.g., fluorescent fibers, security ink) with a unique identifier for each pack exclusively for use by the tax authority during random field verification, and forensic security features such as taggants that can be authenticated using proprietary miniature electronic readers to support prosecution.^{79,76} The stamps use standard data matrix codes and are affixed on each pack in such a manner that removal would make them unusable. Thanks to these features, the new tax stamps are very difficult to counterfeit or to sell to third parties.

A cigarette distributor has a simple device that allows for verification of all products before acceptance into their outlets. KRA officials are equipped with handheld devices that can swipe a

hidden photo-magnetic line embedded in the stamp and transmit real-time data such as the date of issue, the producer's name, the product category, and the brand in real time to the central KRA server. The handheld device can also be used offline for authentication of the stamp and for tracking and tracing of the stamp.

Manufacturers are required to affix photosensitive readers (flow meters) on manufacturing lines to transmit real-time data to KRA servers. These devices can electronically read up to 200 containers in a packing line and send data such as quantity of packs to KRA every 15 minutes. This will prevent a common practice of fraudulently substituting expensive products with lower taxed products. As part of the new system KRA has also rolled out the iTax system for online tax payments and set up a new enforcement unit for income taxes.

The main users of electronic digital stamps are cigarette manufacturers, wines and spirit makers, and bottled water and juice vendors. In January 2013 all major supermarkets were connected to KRA servers. Retailers are now criminally liable if they attempt to sell any products on which tax has not been paid.

Despite the high cost of implementing the SICPA tracking and tracing system, KRA officials claim that the system is self-funding. Companies are paying for the photosensitive readers to be placed on their manufacturing lines, and allowed to expense this cost, thus reducing their tax liability.⁸⁴ KRA also imposes a 2% fee on total audited revenue based on the previous year (this fee generated KES 17 billion, or US\$ 192 mil, in 2012). Implementing the new system increased the cost of the tax stamp by KES 0.124 a piece (from KES 2, or US\$ 0.023, to KES 2.124, or US\$ 0.024) or by KES 66.5 million (US\$ 750,000) a year.⁷⁸ KRA estimates that illicit cigarette trade deprives the country of about KES 1 billion (US\$ 11.3 mil) of taxes annually.⁸¹ Another KRA estimate claims that the illicit cigarette trade deprives the country of more than KES 70 billion (US\$ 790 mil) in jobs, revenue taxes, and investment losses.⁸⁵

It is too early to assess the impact of the new system in Kenya since a full rollout is not expected until 2017. However, preliminary data show that it has reduced the costs of tax compliance, provides faster access to tax stamps, and enhances service delivery. The new regime led to the closure of 3 tobacco factories and 7 out of 10 tobacco importers due to their failure to sell/distribute only duty-paid products.⁷⁶ KRA estimates that its excise revenue on cigarettes increased by US\$ 50 million by mid-2012 just due to the updated tax stamp regime introduced in 2010.⁷⁶ The cigarette seizures are declining while the tobacco excise revenue grows annually by about 20%.⁸⁴ The largest tax revenue increase has been recorded for imported cigarettes as it rose by an incredible 4728% from July–December 2014.⁸⁴ The newly implemented track and tracing measures are credited with a 53% and a 40% increase in excise revenue on alcohol in the period of February–June 2014 and July–December 2014, respectively.^{86, 84} The KRA is stressing the importance of consistency in implementing comprehensive controls, because the partial rollout had only a short-term effect.⁷⁹

The success of the new measures will depend on full country coverage including the rural areas where some industrial plants are located. The Anti-Counterfeiting Authority expressed some skepticism about the long-term impact of the new system and called for continuous refining of it along with ever-evolving technology. In addition, there are many challenges related to weak coordination and limited data sharing between relevant agencies. Inadequate resources only allow funding of the Anti-Counterfeit Agency operation centers in 3 cities: Nairobi, Mombasa, and Kisumu. The law does not allow for penalties that are punitive enough to deter illicit trade. Most of the laws tie fines to the value of seizures or fail to define minimum fines. For example, illicit traders engaging in small quantity but voluminous trade can get away with minimal fines. This lack of punitive fines continues to stifle efforts to curb illicit cigarette trade in Kenya.⁸⁷

Morocco

ERC estimated that the illicit cigarette market occupied 23% and 11.8% of the total cigarette market in Morocco in 2006⁸⁸ and 2010,⁸⁹ respectively.

In 2010, SICPA signed a 5-year contract with the Moroccan government to implement and operate a track and trace system. It covers tobacco, spirits, wine, beer, water, and soft drinks,¹³ and was rolled out from July 2010 to January 2011⁷² with cigarettes being the last product to be subject to the new system.⁹⁰ The track and trace system is based on a tax stamp⁶⁵ and the use of standard data matrix codes.²⁴

The rollout of the system was marked by some resistance from the local beer company as it refused to pay for SICPA marking their bottles in protest against different prices being charged for marking other products.⁹⁰

A few months after the installation of the marking system, the government reported a 20% increase in the declaration of goods for tax purposes. Since this increase was announced in October 12, 2010,⁷² it could not apply to cigarettes since they were not under the new system yet. Nevertheless, Euromonitor reports a decline in the share of illicit cigarettes on the market from 10.6% in 2010 to 7.9% in 2013 (Table 6). Euromonitor attributes this decline to enhanced enforcement efforts by the Moroccan authorities along the eastern and southern borders and increased controls at ports.⁹¹ It is not clear to what extent the SICPA system contributed to this decline, given that the illicit cigarette share had been declining already at the time the SICPA system was implemented.

Malaysia

According to the Malaysian tobacco industry, illicit cigarette consumption has been increasing since 1994 and reached about 21% in 2001.⁹² In response to growing illicit cigarette consumption, Malaysia introduced security markings for cigarettes in 2004.

Table 6

Volume of Licit and Illicit Cigarettes Consumed in Morocco, 2008–2013

	2008	2009	2010	2011	2012	2013
Legal sales (million sticks)	14,686	14,900	15,124	15,374	15,569	15,855
Illicit Trade Volume	2,350	2,115	1,794	1,645	1,507	1,356
Actual Consumption	17,036	17,015	16,918	17,019	17,076	17,211
% penetration of illicit trade	13.8%	12.4%	10.6%	9.7%	8.8%	7.9%

Source: Euromonitor. Tobacco in Morocco: industry overview. 22 August 2014.

The solution was simple yet groundbreaking at that time. It consisted of a direct marking in the shape of a black diamond containing a covert feature that allowed for yes/no verification by inspectors. The 2010 upgrade added additional layers, useable by a wider range of stakeholders and including a red/green color-shift visible to end-consumers, but the principle remained one of yes/no verification. Cigarette packs destined for the domestic market carry either the mark “MY” if they are locally produced or the mark “DY” if they are imported. Products destined for duty-free sales carry the mark with the letters “DF”.

Domestically manufactured cigarettes are marked with security ink that is applied on factory production lines, under the supervision of Customs, directly on the pack.²³ In addition to the security ink, products manufactured in Malaysia have a barcode, which provides information about the production of the cigarettes and is meant for quality control.²³ Imported cigarettes must have a banderol (a tax stamp) on each packet before entering Malaysia, and foreign manufacturers buy these tax stamps directly from Malaysian Customs. There are two types of banderol: a red stamp used for re-export and duty-free shops, and a blue stamp used for cigarettes imported for domestic consumption.²³

Enforcement officials can instantaneously authenticate a product using security marks and handheld scanners.²³ The security marks are not linked to tax payments nor do they contain additional data.⁵ The banderols cost MYR 0.07

(US\$ 0.02) each^{23,93} and the security ink mark costs MYR 0.055 (US\$ 0.02).²³ The cost is covered by cigarette manufacturers and importers.

The system is provided by Liberal Technology⁹⁴ (now Lembah Sari⁹³), which outsources the equipment and ink from SICPA. The contract to Liberal Technology, a company linked to top Malaysian policy makers, was the result of an opaque process without open competitive bidding or public debate.⁹³

The solution implemented in Malaysia is not comprehensive, because it is the result of a compromise between the Malaysian government and the tobacco industry that constantly opposes it. As a result, the system of controlling illicit cigarette consumption in Malaysia is failing. Immediately following the introduction of the security marks in 2004, there was a dip in illegal cigarette use,⁹⁵ but from 2005 onwards, illicit cigarette consumption has been growing (Table 7). The Confederation of Malaysian Tobacco Manufacturers reports that illicit cigarette consumption increased from 2004 to 2009 by 155%.^{96,97} According to Euromonitor data, this increase was 172% during that period. Following the SICPA system update in 2010, the volume of illicit cigarette consumption slightly declined, but then it leveled off.¹⁷ The current scope of illicit cigarette use in Malaysia is not clear. One industry-funded study claims that 35.6% of all cigarette consumption in Malaysia was illicit in 2013.⁹⁸ Euromonitor reports an estimate of 37.2% for the same year,⁹⁹ but an academic study claims

Table 7

Volume of Licit and Illicit Cigarettes Consumed in Malaysia, 2008–2013

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Legal sales (million sticks)	19,571	19,478	18,431	17,263	16,716	16,501	14,254	14,111	13,772	13,646	13,064
Illicit Trade Volume	5,300	3,180	3,482	3,708	5,006	5,757	8,636	8,161	7,835	7,498	7,723
Actual Consumption	24,871	22,658	21,913	20,971	21,722	22,259	22,890	22,272	21,606	21,143	20,787
% penetration	21.3%	14.0%	15.9%	17.7%	23.0%	25.9%	37.7%	36.6%	36.3%	35.5%	37.2%

Source: Euromonitor. Tobacco in Malaysia: industry overview. December 2014.

that the illicit consumption reached 16.5% of total consumption in 2012.¹⁰⁰

In an attempt to reduce the scope of illicit cigarette consumption, Malaysia amended its Control of Tobacco Product Regulations in early 2014 making it illegal to both sell and buy illicit cigarettes. The buyer, just like the seller, may face a maximum fine of RM 10,000 (US\$ 3,000), jail of up to two years, or both.¹⁰¹ The Royal Malaysia Customs launched a public awareness campaign to supplement increased enforcement efforts to seize illegal cigarettes. It consisted of printing and distributing brochures and newspaper ads to raise awareness of how to identify illegal cigarettes. The goal of the campaign was to educate retailers and the public about the penalties for buying and selling illicit cigarette.¹⁸ However, many doubt that this new rule will be adequately enforced.¹⁰²

There are multiple reasons for the failure of the existing system. First, it is based on security markings alone without the possibility to track and trace. This is the result of tobacco industry pressure on the government not to implement a more comprehensive solution. It is unclear if a full-fledged domestic tracking and tracing system would help without adequate border protection since the majority of illicit products seem to come from

abroad⁹⁸ and these cigarettes cannot be traced to their source once a seizure is made. Second, there is a problem with enforcement due to a lack of investment and a high level of corruption. Illicit cigarettes are being sold openly in thriving flea markets,¹⁰³ and custom officials are often implicated in smuggling cigarettes to Malaysia.¹⁰⁴ Currently, there is no license required to sell tobacco, even though a cigarette manufacturer requires a license.¹⁰²

In early 2015, the Malaysian Government announced the introduction of a SICPA solution to control Imported Alcohol & Beer products.¹⁰⁵ It is too early to evaluate the new system, even though it is an indication that the Malaysian government is happy with the services provided by SICPA.

Conclusion

The case studies demonstrate the variety of interventions aimed at curbing illicit tobacco trade that were adopted and implemented by governments in 13 countries (Table 8). All these governments prioritized the issue of illicit tobacco trade, and most of them dealt with it as a part of their comprehensive strategy to reduce tobacco use.

Table 8

Summary Table

	BR	CA	EU	UK	ES	IT	HU	RO	TR	AL	KE	MA	MY
Licensing	X	X	X	X	X	X	X	X	X	X	X	X	X
Markers	X	X		X	X	X	X	X	X	X	X	X	X
Track & trace	X	X					X		X	X	X	X	
Record keeping/control measures	X	X	X	X	X	X	X	X	X	X	X		
Enforcement	X	X	X	X	X	X	X	X	X	X	X	X	X
Export tax	X	X											
Tax harmonization			X	X	X	X	X	X					
Agreements with First Nations		X											
Agreements with industry		X ²⁵	X	X	X	X ¹⁰⁵	X	X	X ¹⁰⁵	X			
Public awareness		X	X	X									X
Agencies' coordination	X	X	X	X	X	X	X	X	X		X		

Notes: Some EU countries do not use markers (e.g., Austria, Cyprus, Finland, and Sweden)

Source: Author's own calculations.

Overall, the comprehensive and coordinated approaches using a combination of interventions were more effective in addressing the problem. Prioritization of illicit tobacco trade within the criminal justice system provides support for tougher punishment and for resource allocation toward enforcement. Almost all countries have a designated lead agency that coordinates the overall strategy and specific approaches with all stakeholders, including tax administration, enforcement authorities, the public health community, and the business community.

Even though the main focus of the interventions is large-scale smuggling and illegal manufacturing, measures such as public awareness campaigns, retailer-focused interventions, tax harmonization, and customs regulations also address small-scale smuggling.

Large-scale illicit tobacco trade seems to respond to targeted enforcement actions that address

corruption, impair the distribution networks, and eliminate or cripple the sources of illicit products. Identifying and targeting hot spots proved to be a good strategy in a few countries. Several governments have negotiated memoranda of understanding with the tobacco industry to control its supply chain. These agreements seem to work only temporarily though, as there is evidence that the tobacco industry is finding ways around these agreements.

Almost all governments license both the producers and the distributors of tobacco products and all of them apply pack markers, even though the safety features of those markers vary greatly across countries. The latest trend is towards more sophisticated markers that are capable not only of authenticating the product, but also tracking and tracing the product through the distribution system. Implementing a national tracking and tracing system is increasingly becoming an

essential component of effort to curb illicit tobacco trade. Such systems are a central element of the Protocol to Eliminate Illicit Trade in Tobacco Products, the first and, to date, only protocol to the World Health Organization's Framework Convention on Tobacco Control (FCTC) (WHO 2012),¹⁰⁶ which will soon be a requirement in all European Union countries.

Surveillance of both illicit tobacco trade and consumption of illicit products, as well as regular evaluation of adopted control measures, are critical for revising the adopted strategies in response to the ever-changing nature of illicit tobacco markets. Generating and responding to this type of empirical evidence proves to be critical for sustained impact.

Since the strategies to deal with illicit tobacco trade have often been accompanied by increases in tobacco taxes, it is difficult to separate the impact of these two interventions. In all cases, however, the combination of these two tobacco control measures results in significant declines in tobacco use, as well as sizable increases in tobacco tax revenues. Countries that have dedicated resources to measuring the size of the illicit market have also confirmed that their efforts lead to a lower share of illicit tobacco products on the market. Several case studies also demonstrate that the successful employment of illicit trade strategies increases revenue in excess of their costs, while improving public health by reducing tobacco use and its consequences.

About the Author

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About the Economics of Tobacco Control Project

The Economics of Tobacco Control Project is hosted by the South African Labour and Development Research Unit at the School of Economics, University of Cape Town, in partnership with the American Cancer Society, the Bill & Melinda Gates Foundation and the African Capacity Building Foundation. The aim of this project is to expand current research efforts in the economics of tobacco control and to enhance the knowledge of economic and tax issues among tobacco control advocates and policymakers to strengthen support for tobacco tax and price increases in sub-Saharan Africa. Visit www.tobaccoecon.org or follow us at www.twitter.com/tobaccoecon.

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Tobacconomics is a collaboration of leading researchers who have been studying the economics of tobacco control policy for nearly 30 years. The team is dedicated to helping researchers, advocates and policymakers access the latest and best research about what's working—or not working—to curb tobacco consumption and the impact it has on our economy. As a program of the University of Illinois at Chicago, Tobacconomics is not affiliated with any tobacco manufacturer. Visit www.tobacconomics.org or follow us on Twitter www.twitter.com/tobacconomics.

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