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Economic Research Informing Tobacco Control Policy

Illicit Trade in Tobacco Products Need Not Hinder Tobacco Tax Policy Reforms and Increases

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About Tobacconomics

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 is 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.

Introduction

Tobacco use is associated with enormous health, economic, environmental, and social losses worldwide. It is estimated that 1.1 billion people smoke globally, or 20.7% of the world's adult population (WHO, 2017). As a result, about 7.2 million people die prematurely every year, and the majority of these deaths occur in low- and middle-income countries (LMICs). These premature deaths not only entail human suffering and pain, they also impose huge burdens on national economies. The worldwide annual economic cost of smoking is estimated at about \$US 1.8 trillion, equivalent to 1.8% of the world's Gross Domestic Product (GDP) (Goodchild et al., 2017).

Many countries are addressing the toll of tobacco use by implementing evidence-based measures as outlined in the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), the first public health treaty, in effect since 2005. One of the most effective and cost-effective measures is the use of price and tax measures to reduce the demand for tobacco products (NCI, 2016). Higher taxes that lead to higher tobacco product prices improve public health, increase government revenue, and reduce the macro economic burden associated with tobacco use (IARC, 2011).

One of the primary points of opposition to increasing tobacco taxes is the fear that increases in tobacco taxes will result in increases in illicit trade. As this paper will show, such concerns are unfounded and propagated by opponents of tobacco taxes in order to disrupt tobacco tax policy. Illicit tobacco products may undermine tobacco control efforts primarily by providing cheaper cigarettes to the market, thereby increasing their affordability, and undermining the goal of increased tobacco taxation (Joossens et al., 2009). For example, the average price of illegal cigarettes in Malaysia was about 55% lower compared to tax-paid cigarettes in 2011 (Liber et al., 2015). In Argentina, Brazil, Uruguay, and Paraguay the average street price of smuggled cigarettes was 50%, 50%, 60%, and 67% cheaper compared to the average price of legal cigarettes, respectively (Ramos, 2009). However, illicit tobacco products are not always cheaper.

Smuggled cigarettes often command a premium since they are perceived in some markets as being of higher quality and/or more desirable (Joossens, 2003). Furthermore, smuggled cigarettes may be used by multinational companies to circumvent barriers to entry, including domestic monopolies or restrictions on foreign companies (Gilmore and McKee, 2004). A study conducted in 14 LMICs found that the median price of illicit cigarette packs was higher than that of legal cigarette packs in six countries (Bangladesh, India, Pakistan, Philippines, Thailand, and Vietnam) (Brown et al., 2017).

Illicit trade further undermines tobacco control efforts through increasing the choice of brands, which can increase overall demand; increasing the disparity in tobacco use, since illegal products are disproportionately consumed by low-income populations (Ross, 2015); enhancing access to tobacco products, particularly for youth, as illegal products are often distributed via unregulated channels (Ross, 2015). This undermines health warnings and ingredient disclosure policies, since illegal products often do not comply with local laws; and reducing government tax revenue (Ross et al., 2015).

This paper focuses on five key messages that show that concerns regarding illicit trade are unfounded and support increases in tobacco taxes:

1. The tobacco industry uses illicit trade to oppose tax increases, specifically arguing that increases in tobacco taxes will lead to increases in illicit trade, which, in turn, will undermine public health and fiscal policy objectives.
2. The tobacco industry exaggerates the scale and extent of illicit trade as a means of advocating against tobacco tax increases.
3. Taxes and prices are not the key driver and determinant of illicit trade; many other factors are more likely to drive illicit trade.
4. Even in the presence of illicit trade, experience from a wide range of countries find that increases in tobacco taxes have consistently produced significant fiscal and health benefits through increases revenue and reduced tobacco use.

5. If governments are concerned about the levels and/or extent of illicit trade, there are many policy, administrative, and enforcement measures that they can undertake to reduce illicit trade, even while increasing tobacco taxes.

Some Descriptions and Definitions

The WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products (WHO, 2013) defines illicit trade as “any practice or conduct prohibited by law and which relates to production, shipment, receipt, possession, distribution, sale or purchase, including any practice or conduct intended to facilitate such activity.” This is a broad definition of illicit trade, however, for the purposes of this white paper, illicit trade will be considered only in cases of trade without partial or full payment of taxes.

Illegal methods of circumventing tobacco taxes are called *tax evasion*, as they intend to evade paying all or some tobacco taxes.

There are various types of tax evasion. One of the most common forms is *smuggling* tobacco products across borders without paying tax in the jurisdiction of intended consumption. In many cases, taxes may even have been paid in another jurisdiction, albeit a lower tax jurisdiction. Figure 1 shows an estimation of the scale of smuggling compared to other forms of tax evasion. While smuggling is the most common form of illicit trade globally, tax evasion also occurs on domestic production.

Counterfeit cigarettes are cigarettes manufactured without authorization from the trademark owner, with the intent to deceive consumers as to their origin and to avoid paying taxes. *Illicit white cigarettes* are brands manufactured in one jurisdiction, often legally in the jurisdiction of manufacture, but smuggled and sold in another jurisdiction without all applicable duties being paid. *Unbranded tobacco* is often sold as finely cut loose tobacco. It may involve misrepresentation of the quality and origin, or failure to obtain a license to grow and produce tobacco, and/or failure to register as an importer/exporter/distributor.

Illicit trade can be undertaken both by those who are not registered with relevant government agencies, as well as by legitimate entities whose business operations or practices are contrary to applicable laws and regulations.

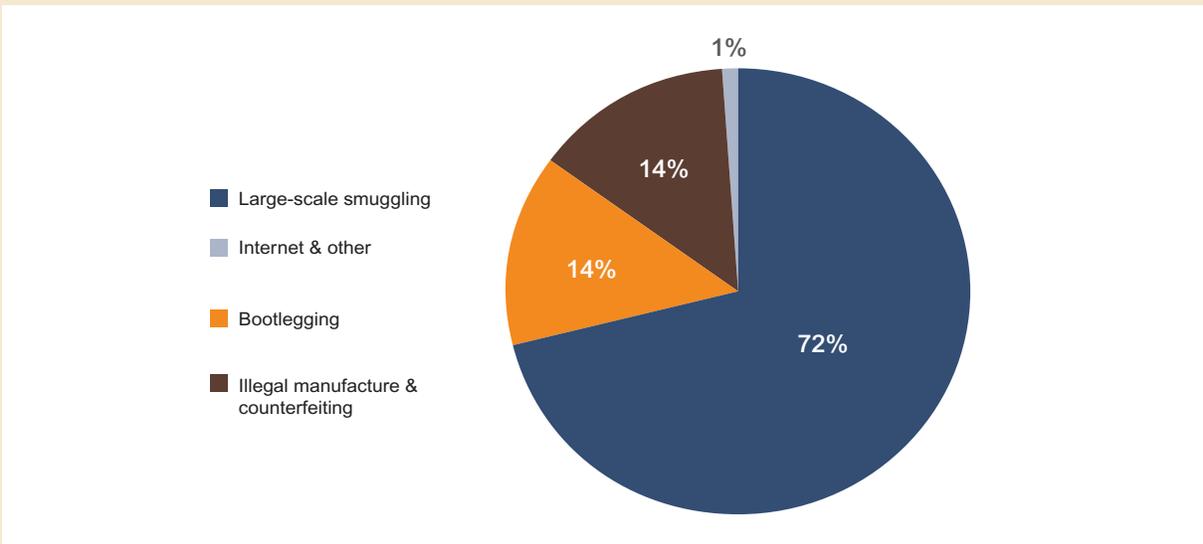
The size of the illegal operation is often linked to the underlying motivation for engaging in illicit trade in tobacco products. Small-scale tax evasion operations usually occur between neighboring countries or at the regional level. This involves moving products across the border in excess of the allowable limits and/or when products purchased “for personal consumption” in one country are sold for profit in another country without paying appropriate taxes. These activities are also called *bootlegging*. In many small-scale operations, some taxes have been paid, even if in another jurisdiction.

Large-scale tax evasion generally avoids paying all taxes and is not limited to a region, as products are often moved long distances. The main motivation is individual or corporate greed, money laundering, or financing of other criminal activities. These operations can involve counterfeits, genuine products with counterfeit tax stamps, illicit white cigarettes, or domestic production beyond declared amounts. They often take advantage of “in-transit” regimes and/or tax-free zones (Ross, 2015).

Tax avoidance, which is different from tax evasion, are legal mechanisms to avoid paying taxes, and may often only be available as a result of poor policy or administration. It is important to recognize that while there is a distinction between tax evasion and tax avoidance, they are often exploited for the same purpose, to reduce tax liability, and undermine the public health and fiscal policy objectives. *Cross-border shopping* is a prominent example of individual tax avoidance where consumers purchase tobacco products from lower tax jurisdictions within the allowable amount or duty-free purchases. Such tax avoidance is mostly done by individual tobacco users, but is also exploited by tobacco companies that are looking for ways to reduce their tax liability within the parameters of the existing legislation using clever accounting practices and exploiting loopholes (Ross et al., 2017). *Forestalling* is when manufacturers produce larger amounts of products

Figure 1

Supply of illicit tobacco products market by type, 2012



Source: Yurekli et al., (2016) in World Bank (2018)

before a tax increase in order to avoid paying a higher rate of tax in the future (Ross et al., 2017). Other mechanisms of tax avoidance by manufacturers include changing the attributes of products in response to tax increases. Examples of this include reducing the weight of tobacco per stick or changing various characteristics to shift products to lower tax categories in a system characterized by multiple tiers.

Even though these tax avoidance activities are legal, they deprive the government of tax revenue and increase the affordability of tobacco products, thus undermining tobacco tax as a public health and fiscal measure. Governments should pay particularly attention to large-scale tax avoidance schemes, since these activities can deprive governments of large amounts of revenue and diminish the public health impacts of tax increases. In many cases, tax avoidance can be usually addressed by administrative measures or improved policy design (Ross et al., 2017). Both WHO (2010) and the World Bank (2018) have published useful guides to assist countries in this regard.

1. The tobacco industry uses illicit trade to oppose tax increases, specifically arguing that increases in tobacco taxes will lead to increases in illicit trade, which, in turn, will undermine public health and fiscal policy objectives.

Publicly, the tobacco industry expresses concern about the amount, stability, and predictability of governmental excise tax revenues and offers its expertise to help governments establish “optimal” excise tax policies, including rates and tax structures (see, for example, Arthur Laffer’s Handbook of Tobacco Taxation funded by Philip Morris International (Laffer, 2014)). However, internal industry documents reveal that the industry’s goals are simpler: the excise tax should be as low as possible, and any increases should not be greater than the general level of inflation, in order to maintain the affordability of tobacco products (Shirane et al., 2012). This macro goal of keeping taxes low should not be confused with the goals of individual companies, which will seek policies that favor their brands over that of

competitors. This can result in individual companies seemingly supporting tobacco control best practices in some instances rather than the broader industry narrative of lower taxes. For example, a manufacturer with a higher priced brand may support the implementation of a uniform specific tax since it would reduce price competition from cheaper brands.

One of the mostly commonly used strategies to oppose higher tobacco taxes, and recently also other tobacco control policies, involves illicit tobacco trade. The key industry tactics with respect to illicit tobacco trade include:

- engaging in illicit trade to evade taxes;
- engaging in illicit trade to put pressure on governments to lower tobacco taxes;
- organizing illicit trade to open closed markets;
- using the presence of illicit trade as an argument to oppose tobacco tax increases and/or to other tobacco control policies using direct lobbying and mass media/publicity campaigns;
- generating and disseminating its own estimates of the size of the illicit trade market or commissioning supportive research prepared according to undisclosed industry specifications;
- establishing ‘front groups’ and securing credible allies such as customs and other enforcement authorities; and
- interfering with all aspects of policy to control illicit trade, including the WHO FCTC Illicit Trade Protocol.

Illicit trade in tobacco products also undermines tobacco control in an indirect way when tobacco companies use the presence of illegal tobacco products on the market to demand less stringent tobacco control policies and/or to prevent tobacco tax increases (Chaloupka, 2014). They argue that higher taxes and prices will motivate smokers to buy illegal products rather than smoking less or quitting, and as a result tobacco use will not decline and tax revenue will be hurt (Gilmore et al., 2014). Yet numerous empirical studies dismiss this argument (IARC, 2011). For example, the market share of illicit cigarettes in the United Kingdom (UK) declined from 30.9% in 2000 to 21% in 2010

(National Audit Office, 2013) while cigarette taxes and tobacco tax revenue continued to rise, and the prevalence of cigarette use declined (WHO, undated).

Numerous documents have demonstrated the involvement of transnational tobacco companies in large-scale tax evasion operations (Holden, 2016). Canada is one of the most prominent examples where the tobacco industry pressured the government to lower tobacco taxes in the 1990s by orchestrating cigarette smuggling into the country (Breton et al., 2006). The tobacco tax reduction in 1994 led to lower cigarette prices, lower tax revenue, and higher smoking rates, especially among youth (Zhang et al., 2006). After assessing the impact of the tax cut, the federal government began to increase tobacco excise taxes and restored them to their pre-1994 level by June 2002 (RCMP, 2008). Criminal charges and civil lawsuits have been brought against tobacco manufacturers involved in tobacco smuggling (RCMP, 2008). In 2008 and 2010, these companies agreed to pay a total of \$US 1.7 billion dollars in criminal fines and civil restitution for their role in smuggling schemes (Daudelin et al., 2013).

There is compelling evidence that the supply of international brands via illegal channels has been an important component of the tobacco industry’s market entry strategy in Africa, Latin America, and Asia (Collin et al., 2004).

Recent evidence suggests that the industry is still involved in illicit trade, or is, at best, failing to control their supply chain (Ross, 2018). This is also supported by data from the World Customs Organization showing that 70% of global seizures consist of legitimate products (i.e., legal products destined for other countries) (WCO, 2013).

In addition, it is notable that the industry does not reduce its own prices out of a concern for contributing to the illicit trade problem. In fact, the industry frequently uses the occasion of a tax increase to apply its own price increases (IARC, 2011).

Given its poor reputation, the tobacco industry often establishes front groups and funds credible organizations, in both the private (e.g., think tanks) and public sector (e.g., customs and other enforcement authorities) to give the impression of

widespread independent support for its fight against illicit trade. For example, the industry buys equipment for border control and trained dogs for searches, trains customs officials, and provides funds to key organizations and other government agencies (Joossens et al., 2016). Recent funding from the tobacco industry, either directly or via front groups, went to Interpol, the International Anti-Corruption Academy, the World Customs Organization, the International Chamber of Commerce, and PMI Impact—a global initiative to support projects dedicated to fighting illegal trade and related crimes, such as corruption, organized crime, and money laundering (Gilmore and Russel, 2018).

In its attempt to be considered part of the solution for illicit trade, the industry now engages in regulatory capture, making deals with governments to control illicit trade (Joossens et al., 2016). It has also designed its own track and trace system, which, if implemented, allows it to control all aspects of a policy ostensibly designed to address illicit trade in tobacco products. However, the ineffectiveness of agreements with the industry and the inefficiency of their technological solution to control illicit trade have been exposed (Joossens et al., 2016; Ross et al., 2018).

The tobacco industry spends considerable resources to generate its own estimates of the size of the illicit tobacco products market for many countries and regions, and also commissions studies by various “legitimate” commercial entities and “friendly” front groups (Ross, 2015). Evidence suggests that the industry systematically overstates the extent of illicit tobacco trade and that its estimates are either at the upper bound or substantially exaggerated (Chaloupka, 2014). The industry also distorts the picture by choosing incorrect indicators (e.g., the share of illicit in legal sales when the correct comparison is the share of illicit in total consumption; emphasis on relative versus absolute volumes while the total consumption of tobacco products declines) and highlights the presence of illicit whites (cigarettes manufactured by legitimate business enterprises, but sold without paying taxes) and counterfeit cigarettes, portraying itself as a victim of these illegal activities (KPMG, 2016). The next chapter considers these distortions in more detail.

2. The tobacco industry exaggerates the scale and extent of illicit trade as a means of advocating against tobacco tax increases.

The illegal nature of illicit trade in tobacco products makes the measuring of its scope extremely difficult. Therefore, it is necessary to find innovative ways to assess the size of the illicit market in tobacco products. Researchers have proposed and tested several such methods (Ross, 2015). Furthermore, enforcement authorities may have data reflecting the rate of law violation, but this reflects the level of enforcement activity, rather than the actual size of the illegal market.

A study using data from the early 2000s found that 11.6% of the world cigarette market was illicit, representing more than 650 billion cigarettes a year and \$US 40.5 billion in lost revenue (Joossens et al., 2010). In comparison to high-income countries (HICs), the authors also reported that LMICs have a larger share of illicit products despite the fact that their cigarettes were on average cheaper, and taxed lower.

Another study used international cigarette trade records from 1999 and estimated that about 156 billion cigarettes, or 3.4% of global cigarette consumption was smuggled, leading to tax revenue losses of about \$US 15.6 billion (Yürekli and Sayginsoy, 2010). Since the methodology used in this study only captured the movement of illegal products across borders, i.e., cigarette smuggling, its estimates were lower compared to the first study whose methodology also captured illegal products that do not move across borders (for example, illicit cigarettes manufactured inside a country).

The tobacco industry provides its own estimates of the size of the illicit trade market for many countries and regions (Ross, 2015). However, as mentioned above, the evidence suggests that the industry systematically overstates the extent of illicit tobacco trade and that its estimates are either the upper bound or substantially exaggerated (Chaloupka, 2014). For example, a recent study in Colombia revealed that the share of illicit market is close to 3.5%, while the industry claimed that 13% to 20% of the market consists of illicit cigarettes

(Maldonado et al., 2018; Garcis et al., 2017). An alternate bias is that the tobacco industry may “rewrite history” to create the impression that the illicit market is growing faster than it is. A prominent example of this is in South Africa (Van Walbeek and Shai, 2014).

The reason for these biases stems from the tobacco industry’s business strategy to use the presence of illegal tobacco trade to fight tobacco control policies, including tobacco tax increases (Chaloupka, 2014).

Commercial entities, such as Euromonitor International or ERC (also known also as Canadean or GlobalData), provide both global- and country-specific estimates of the size of the illicit trade in cigarettes. However, the methodologies used by these companies are not disclosed, and their estimates have been criticized for being inconsistent and being influenced by the tobacco industry estimates (Blecher et al., 2015).

Despite the difficulty of estimating the size of the illicit market in tobacco products, and the potential business motivation, and controversy associated with many estimates, the size of the problem in some markets is well understood. Most of these estimates have been generated in HICs where there are resources devoted to this type of research, even though estimates from LMICs are starting to appear in the literature. The estimates focus primarily on illicit trade in cigarettes since these products constitute the highest market share among tobacco products in the majority of countries.

Some prominent examples of studies in HICs include:

- A study using 2010 data revealed that about 6.5% of the cigarettes consumed in 18 European countries were illicit (Joossens, 2014). The UK government publishes annual estimates of the size of tobacco tax evasion and tax avoidance using the gap analysis method, estimating the gap between survey reported consumption and government tax data. The estimate for the 2015-16 financial fiscal year indicates that about 13% of the cigarette market is illegal (HMRC, 2017), a marked decline from the 25% estimated in 2000 (House of Commons, 2002).

- In Warsaw, Poland, about 15% of the cigarette packs collected in 2011 were not intended for the Polish market, thus they either avoided or evaded taxes (Stoklosa and Ross, 2014). The industry estimate for the same year claimed that 23% of packs in Warsaw were not intended for the local market, which is 50% more compared to the academic study that used two different methods (pack collections from smokers and littered pack collections) to cross-verify the results.
- The estimates of the illicit cigarette market from the United States (U.S.) combine tax avoidance and tax evasion. Depending on the method used, the size of the illicit cigarette market varies from 8.5% to 21.0% of the total cigarette market. However, legal tax avoidance and cross-state purchases are likely to be a significant part of the U.S. problem, and therefore the general consensus leans towards the estimate of an 8.5% illicit cigarette market share (NRC and IOM, 2015).
- In Hong Kong, China, illicit cigarette consumption was estimated to be about 8.2% to 15.4% of the total cigarette consumption in 2012, with a midpoint estimate of 12%. A tobacco industry-funded estimate claimed that 36% of cigarette consumption was illicit in the same year (Chen et al., 2015).
- The size of the illicit tobacco market is relatively small in New Zealand (1.8% to 3.9% of total national tobacco consumption in 2013) (Ajmal and Veng, 2015) and Australia (<3.6% of smokers reported any current use of illicit tobacco in 2013) (Scollo et al., 2015).

Examples in LMICs include:

- The size of the illicit cigarette market in Brazil seems to fluctuate between 29% and 43% (Szklo et al., 2017), while only about 3.5% of the market is illicit in Colombia (Maldonado et al., 2018).
- A study in Vietnam using two different methods estimated the illicit market share at between 1.5% to 21.1% between 2002 and 2006. Even though the estimates were subject to various assumptions, they were considerably lower than estimates presented by the tobacco industry (Nguyen et al., 2014).

- An academic study in India assessed the illicit cigarette market share to be about 3%, while the tobacco industry claimed that the share of illicit market was close to 20% of the total market (John and Ross, 2017). However, the study identified a few “hot spots” near the Bangladesh and Myanmar borders where the share of illegal cigarettes reached as much as 36% of the market (John and Ross, 2017). The existence of such problematic areas is not unusual, even though they often do not represent the situation in the country as a whole, but can be singled out by the tobacco industry to exaggerate the size of the illicit trade.

Country-level estimates generated using scientific methods vary greatly, reflecting contextual factors of local markets and the methods used to generate the estimates (Joossens et al., 2014). In addition, market conditions can change substantially from year to year, changing the dynamics (and the estimates) of the illicit market. Some of these changes may be related to the implementation of measures controlling the illicit cigarette market, the supply of illegal products orchestrated by the tobacco industry, or escalation of conflicts (Ross, 2017; Guindon et al., 2016; Joossens and Raw, 2008; Gallus et al., 2009).

When discussing the illicit tobacco market, it is important to distinguish between the share of illicit trade (expressed as a percentage of the total market) and level of illicit trade (expressed in the absolute volume). This is especially important in the context of declining tobacco use. The industry often focuses on the trend in a given market, showing a growing market share of illegal tobacco products. However, it fails to point out that the share of illegal products can grow even if their volume declines, due to the overall decline of tobacco consumption (Stoklosa, 2015). For example:

- The illicit cigarette market share in the UK reached 10% in 2010-11, which represented about 5 billion cigarettes. By 2015-16, the number of illicit cigarettes on the market remained the same, yet this amount now represented 13% of the total market since the total market has declined (HMRC, 2017).

- The illicit market share in Brazil was observed to be 28.6% and 28.8% in 2012 and 2014, respectively, yet the volume of illicit cigarettes declined from 35.8 billion to 29.3 billion during that period since the total market had shrunk (Szklo, 2017).

Another tactic used by the industry is to express the size of the illicit market as a percentage of legal sales (Cancer Council Victoria, 2011). This makes the relative size of the illegal market higher, given that the legal market is a subset of the total market, which consists of both legal and illegal products. The standard way to present the size of the illicit market is to report it as a percentage of the total market (Ross, 2015).

For these reasons, it is important to be vigilant when interpreting estimates of the size of the illicit tobacco products market.

It is also important to present the issue of tobacco tax evasion in the context of broader tax policy. Governments do not deal with just one commodity when they evaluate the effectiveness of their tax systems, but rather assess issues in their relative terms in order to establish priorities. This determines how much effort they want to or should devote to a particular issue.

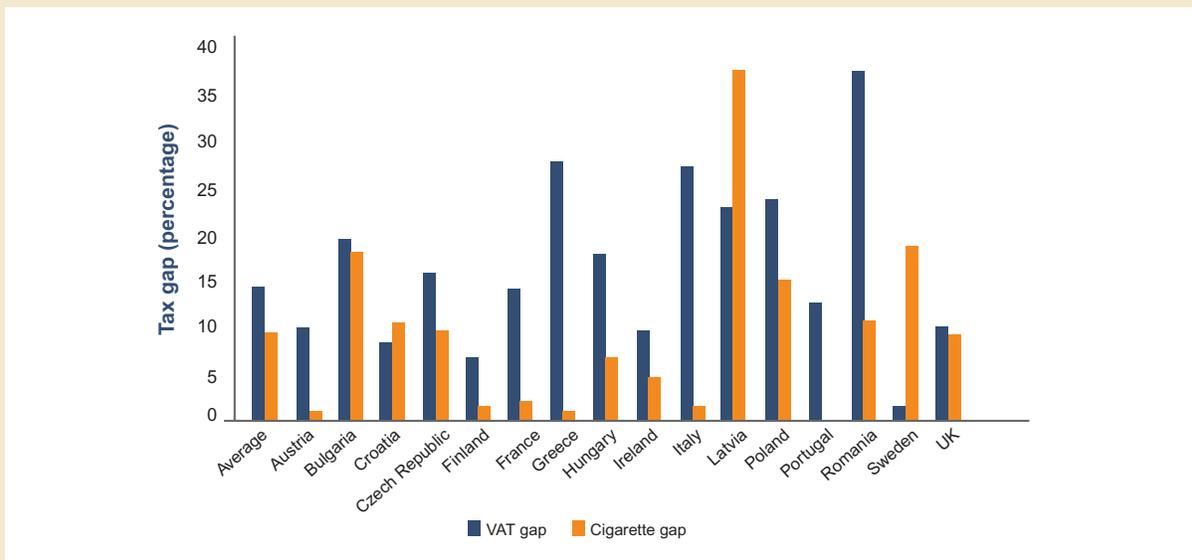
In the UK, for example, the value of the tobacco tax gap, i.e., excise taxes not collected as a result of illicit trade in the 2016-17 fiscal year, amounted to £1.9 billion. While this was the highest tax gap of all tax lines by percentage, it was only 5.7% of the total tax gap of £33 billion in that fiscal year. The largest tax gaps, in absolute values, were attributable to income tax, national insurance contributions, and capital gains tax of £13.5 billion and value-added tax (VAT) of £11.7 billion (Table 1), dwarfing that of tobacco.

In the U.S., the illicit cigarette market in 2010-11 represented about 8.8% of the total market and a revenue loss of \$US 1.6 billion (Feige and Cebula, 2012). In the same year, 18% to 19% of income was not properly reported for the purpose of taxation, resulting in a revenue loss of US\$ 500 billion (Feige and Cebula, 2012).

Table 1**UK tax gap by type of tax, value and share of tax gap, 2016-17**

	Value (GBP, billions)	Tax gap
Income, National Insurance and Capital Gains	13.5	4.2%
Value-Added Tax	11.7	8.9%
Corporate Tax	3.5	7.4%
Tobacco Excise	1.9	18.1%
Alcohol Excise	0.9	7.3%
Other Excise	0.3	1.0%
Other Taxes	1.6	4.5%
Total	33.0	5.7%

Source: (HMRC, 2018).

Figure 2**Comparison of the cigarette excise tax gap and VAT in Europe**

Source: Joossens et al. (2014); Poniatowski, Bonch-Osmolovskiy and Belkindas (2016)

Notes: Cigarette gap is for 2010, while VAT gap is for 2013. The average includes 28 EU member states for VAT gap and 18 countries in PPACTE survey for cigarette gap. The data for the UK does not coincide with Table 1 due to the data being from different years and derived using different methods.

Figure 2 provides a visual comparison of the VAT gap and the cigarette excise tax gap in several European countries. Apart from three countries (Croatia, Latvia, and Sweden), in all other countries tax evasion is much larger for VAT compared to tobacco taxes.

Since the size of the cigarette tax gap represents a smaller absolute potential tax revenue gain, it is understandable that governments might devote fewer resources to combatting illicit trade in tobacco products. However, governments should also be mindful of public health gains due to lower

tobacco use that are likely to occur as a result of reducing illicit trade when deciding how to allocate resources for tax administration and enforcement.

The revenue gain from reducing the illicit market is positively related to both the size of the problem and the tax level, while the public health gain depends on the overall smoking prevalence. This implies that a tax increase should increase the motivation for addressing tax evasion while also generating the necessary resources to fund enforcement to combat it.

3. Taxes and prices are not the key driver and determinant of illicit trade; many other factors are more likely to be causal in the levels of illicit trade.

The determinants of illicit trade in tobacco products are complex. The decision to supply a market with illegal cigarettes is driven by considerations similar to those facing a legal operation—expected revenue, costs of obtaining products, and delivery costs. However, due to the illegal nature of the business, one needs to add costs associated with overcoming the legal and regulatory hurdles. These costs are related to the probability of detection, certainty of sanction, size of penalties, presence of smuggling routes and black markets, and licensing requirements for distributors (Ross, 2015).

The expected profit will influence the volume supplied to the illicit market, as well as the mode of delivery. Large-scale operations that are responsible for the majority of products in illegal cigarette markets provide higher profits and their emergence is often driven by high levels of corruption, the existence of criminal networks, and weak tax administration (Joossens, 1999; Council of the European Union, 2005).

Small-scale smuggling, or bootlegging, generally offers lower profits, and arises in response to absolute price differences between adjacent jurisdictions, short travel distances, and the opportunity costs of time such as forgone income from other alternative activities (Merriman et al.,

2000). Therefore, small-scale smuggling is likely to be less of an issue if the absolute price differentials are small, distances to travel are larger, and the unemployment level is low.

Academic studies show that the illicit cigarette market is relatively larger in countries with low taxes and prices, while relatively smaller in countries with higher cigarette taxes and prices (Joossens et al., 2010; NRC and IOM, 2015) (Figure 3). While this might suggest a negative relationship, there is in fact no relationship, since higher taxes are often associated with higher levels of tax administration, which includes higher levels of monitoring and penalties for illicit trade. Furthermore, countries with low taxes and prices tend to also be countries with lower incomes and where cigarettes are less affordable (as compared to other countries) (Blecher and Van Walbeek, 2009). This implies that, contrary to tobacco industry arguments, taxes and prices have only a weak positive association with illicit cigarette market share at the country level (Chaloupka et al., 2015; NIH, 2016; Petit and Nagy, 2016).

For example, a 2011 study from Thailand reported that the level of cigarette excise taxes had no relation with the level of illicit trade (Pavananunt, 2011). Even in Europe where price/tax differences across countries can be significant, only a small percentage of smokers reported frequent cross-border cigarette purchasing (Nagelhout et al., 2014).

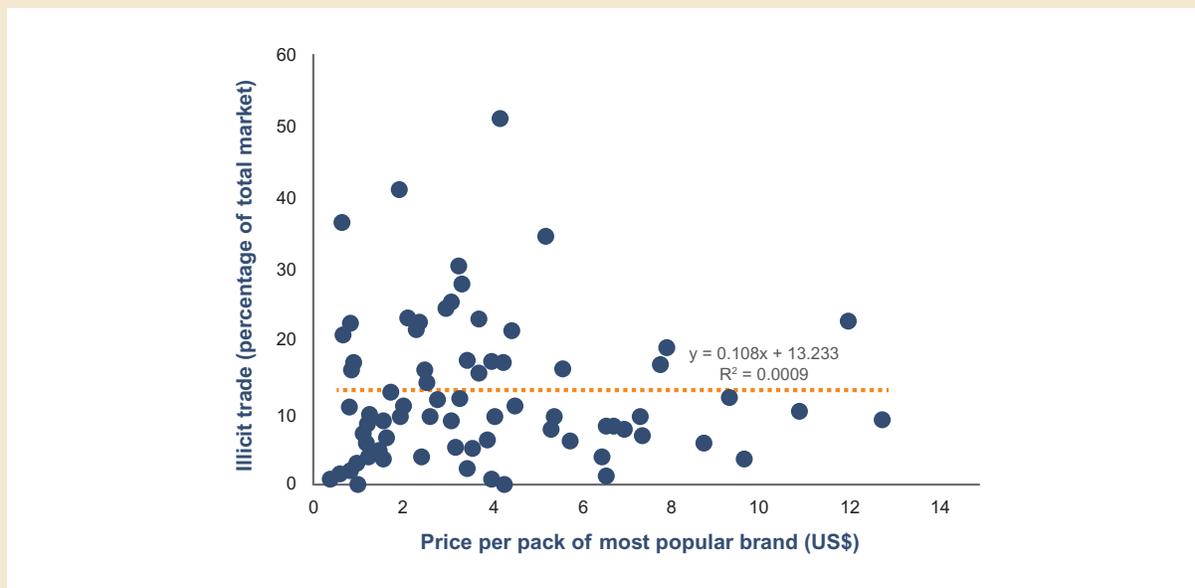
Interestingly, there seems to be a similar relationship for evading other types of taxes. Figure 4 shows that VAT evasion is higher in countries with lower VAT rates and vice-versa. Thus, it appears that factors other than tax rates are driving the magnitude of non-compliance with tax laws.

Research shows that non-price factors are much more important determinants of the size of the illicit tobacco market. These are (World Bank, 2018; Chaloupka et al., 2015):

- strength of governance;
- quality of tax administration;

Figure 3

Illicit cigarette market share and cigarette prices, 2016

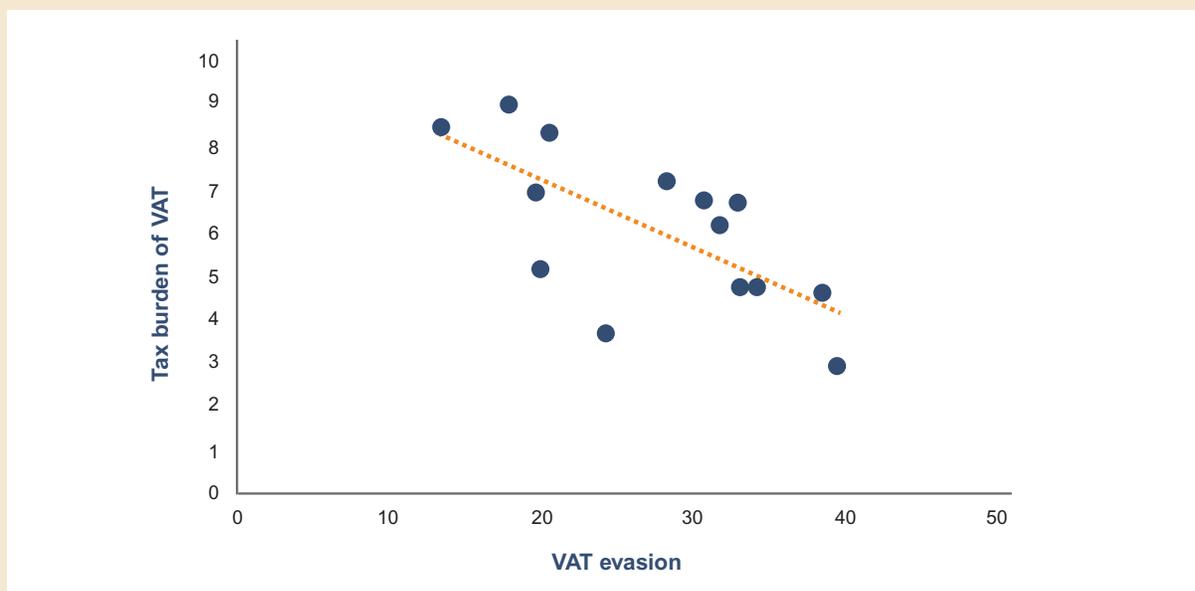


Source: Euromonitor (2018); WHO (2017)

Note: Includes 74 countries for which both price and illicit trade data are available. While country level estimates by Euromonitor have been questioned (Blecher et al., 2013), the data in the figure are presented to show a pattern rather than report the exact market share of illicit trade in individual countries.

Figure 4

VAT tax evasion and VAT tax rates in Latin America



Source: ECLAC (2018)

- strength of the regulatory framework;
- extent of corruption;
- government commitment or willingness to control illicit activities;
- social acceptance of illicit trade;
- availability of informal distribution networks;
- and to some extent geography.

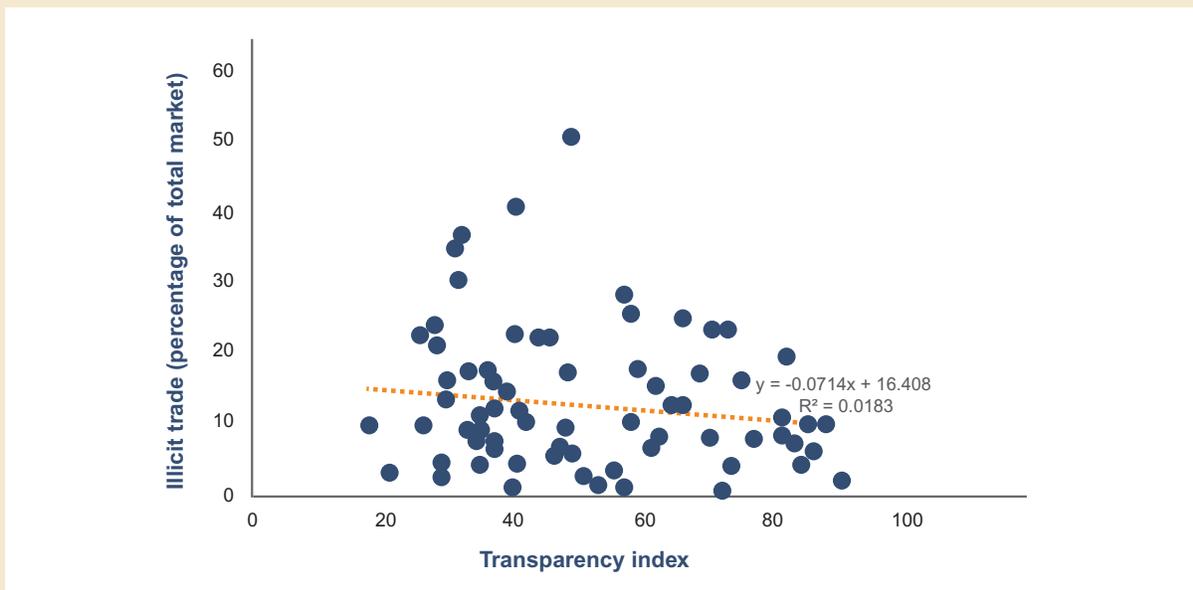
Figure 5 shows empirical evidence for the link between governance, corruption, and illicit trade by plotting the estimated level of illicit trade and an index of transparency. A higher index indicated greater transparency as a proxy for better governance and less corruption. The data is suggestive that countries with lower degrees of transparency have higher observed rates of illicit trade, although countries with lower levels of illicit trade are not predicted by transparency.

4. Even in the presence of illicit trade, experience from a wide range of countries find that increases in tobacco taxes have consistently produced significant fiscal and health benefits through increases revenue and reduced tobacco use.

Research shows that higher prices on tobacco products resulting from higher taxes lead to overall lower cigarette demand—even when illicit products are available (NCI, 2016). Therefore, any new tax avoidance/evasion does not eliminate the effectiveness of tobacco tax increases in reducing tobacco use and raising revenues (IARC, 2011).

Studies do suggest that a cigarette tax increase can lead to more small-scale tax avoidance and tax evasion (Merriman et al., 2000; Chernick and Merriman, 2013). However, since the supply of illegal products via these channels is relatively

Figure 5
Illicit trade and corruption, 2016



Source: Euromonitor (2018); Transparency International (2018)
Note: Includes 74 countries for which both corruption index and illicit trade data are available. While country level estimates by Euromonitor have been questioned (Blecher et al., 2013), the data in the figure are presented to show a pattern rather than report the exact market share of illicit trade in individual countries.

small, the overall size of the illicit cigarette market barely changes (Paraje, 2018; Kaplan et al., 2017).

There are many examples demonstrating that substantial increases in tobacco taxes are not accompanied by increases in illicit trade. Examples where illicit trade was measured before and after tax increases include:

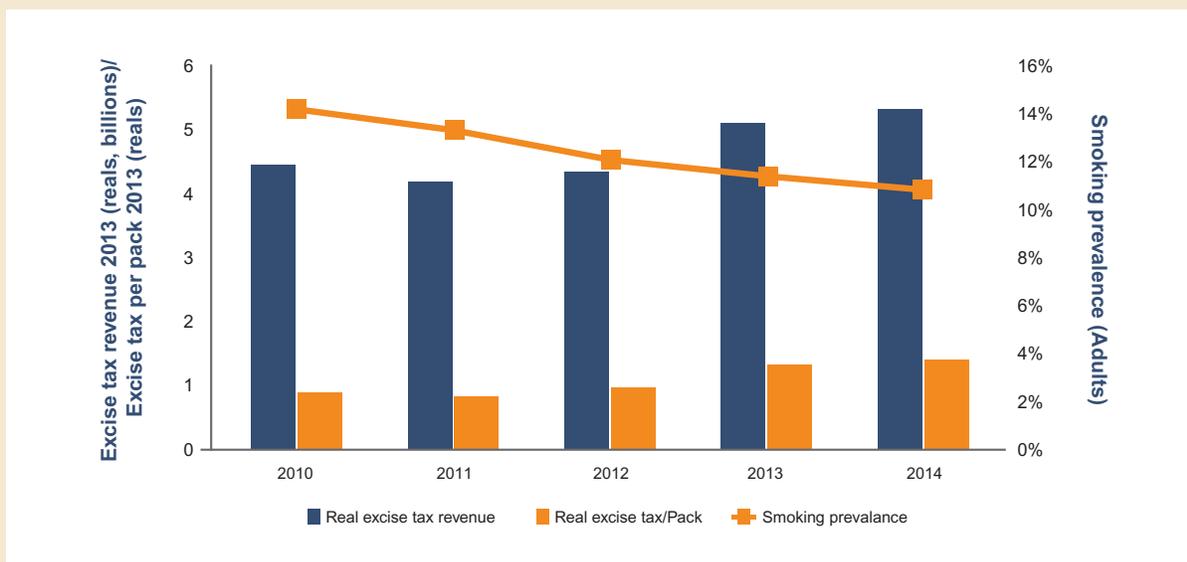
- Turkey substantially increased its tobacco tax in January 2013 and the size of the illicit cigarette market remained stable at 12% five months after the tax increase (Kaplan et al., 2017). Furthermore, per capita consumption declined by 9% and revenue increased by 7% following the tax increase (Çetinkaya and Marquez, 2017).
- In Mongolia, where about 75% of the market consists of imported cigarettes, the government increased its imported tobacco tax by 30% on 1 May 2017. However, the share of packs without a tax stamp declined from 14.7 % in a sample of 7,494 discarded packs collected in April 2017 to 13.6% in a sample of 5,852 discarded packs collected in September 2017 (Batmunkh, 2018).
- In South Africa, higher tobacco taxes in the 1990s (an increase from 38% to 50% of the retail price)

resulted in a relatively small increase in the illicit cigarette market, but also in a lower smoking prevalence and a doubling of excise tax revenue, despite a drop in legitimate sales of 20% (Blecher, 2010). However, recent increases in illicit trade in South Africa have occurred in the absence of increases in taxes and have been ascribed to a catastrophic decline in the tax administration and enforcement capacity (Ross and Van Walbeek, 2015).

- Despite the presence of an illicit cigarette market, Brazil has also been successful in reducing tobacco consumption using higher tobacco taxes as the primarily tool. Since 2007, the tobacco excise tax has been increasing faster than inflation, which has resulted in an increase in real cigarette prices. This has been accompanied by the implementation of a track and trace system and other administrative and enforcement measures to curb illicit cigarette trade. As a result, the consumption of both legal and illegal cigarette has declined, and smoking prevalence has declined from 15.6% in 2006 to 10.8% in 2014 (Iglesias, 2016). Despite the decline in legal cigarette sales, revenue from tobacco excise taxes

Figure 6

Cigarette excise taxes, revenue, and smoking prevalence in Brazil, 2010-2014



Source: Iglesias (2016)

increased by more than 50%, from 3.5 billion reais in 2006 to 5.3 billion reais in 2014 (Figure 6) (Iglesias, 2014 and 2016). More recent data shows that revenues have been declining as the pace of legal sales have decreased (Red Sur, 2019).

In addition to tobacco taxes, the tobacco industry asserts that other tobacco control measures, such as restrictions on tobacco product design (e.g., requiring large graphic warning labels), formulation (e.g., banning use of misleading descriptors as “light” or “mild”), or packaging (e.g., introducing plain packaging) will motivate tobacco consumers to switch to illicit products since their preferred product characteristics were altered or eliminated by these non-price regulations. However, research does not support these claims (NRC and IOM, 2015; Scollo et al., 2015; Haighton et al., 2017).

5. If governments are concerned about the levels and/or extent of illicit trade, there are many policy, administrative, and enforcement measures that they can undertake to reduce illicit trade, even while increasing tobacco taxes.

Governments in many countries are interested in addressing illicit trade in tobacco products. In many countries the revenue loss due to tobacco tax evasion/avoidance is small, both in absolute (the total amount to be recovered) and relative (in comparison to tax evasion/avoidance on other taxable items) terms. However, there are public health, economic, and safety-related incentives to deal with the illicit tobacco market that go beyond a pure revenue recovery motivation. Countries with relatively low smoking prevalence/intensity or countries with poor tax structures (that result in suboptimal tax revenues) are less likely to invest in measures controlling illicit tobacco trade unless it is related to safety and/or international obligations since the revenue gains of reducing illicit trade are low.

Following are country case studies to show the varied ways in which countries have addressed the issue of illicit trade with success. Since countries are usually guided by their own legal and enforcement frameworks, as well as the source of

the illicit trade problem, the approaches they adopt are quite diverse.

United Kingdom

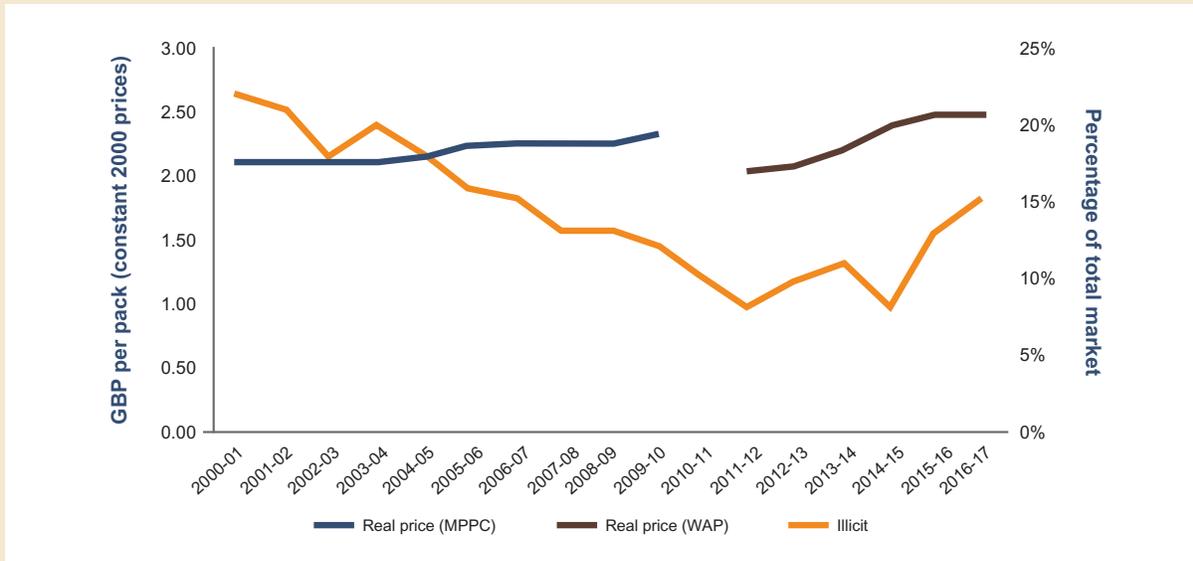
The UK was one of the first countries to make a concentrated effort to control illicit trade in tobacco products. The government was initially motivated by the increasing share of illicit cigarettes and hand-rolling tobacco on the market in the late 1990s and early 2000s, when it was estimated that the illicit market share reached about 20% and 80% of the total market for these two products, respectively (HMRC, 2000). The tobacco industry was the primary suspect as the source of the problem (Joossens and Raw, 2003). In response, the government launched a multipronged strategy focused on enforcement, intelligence gathering, public education, targeting and prosecuting organized crime, and supporting collaboration among different government agencies and key stakeholders (Matthars, 2009).

The initial focus was on large-scale smuggling, but the strategy has been revised multiple times to respond to new challenges that arose as the illicit tobacco suppliers adapted to the new regulatory climate. Enforcement was enhanced, and new supply chain control measures were introduced, requiring manufacturers to report the production and movement history of all consignments. All imported cigarette packs and pouches of hand rolling tobacco have to be marked “UK DUTY PAID” on packets (NAS, 2015). Parties dealing in unmarked tobacco products are liable for civil penalties and forfeiture of the products (Pedersen et al., 2014).

The UK government has close cooperation with postal services and fast parcel operators in order to target postal smuggling from Poland (Kelly, 2008). It introduced hefty penalties for cross-border shopping/bootlegging to deter even small-scale operations (Sweeting et al., 2009). At the same time, it reduced the minimum allowances of duty-free/imported products for EU travelers (HMRC and UK Border Agency, 2011). Collaborating with overseas partners and international organizations also bore fruit. The UK expanded its team of overseas intelligence officers, whose role is to intercept contraband “upstream” and seize

Figure 7

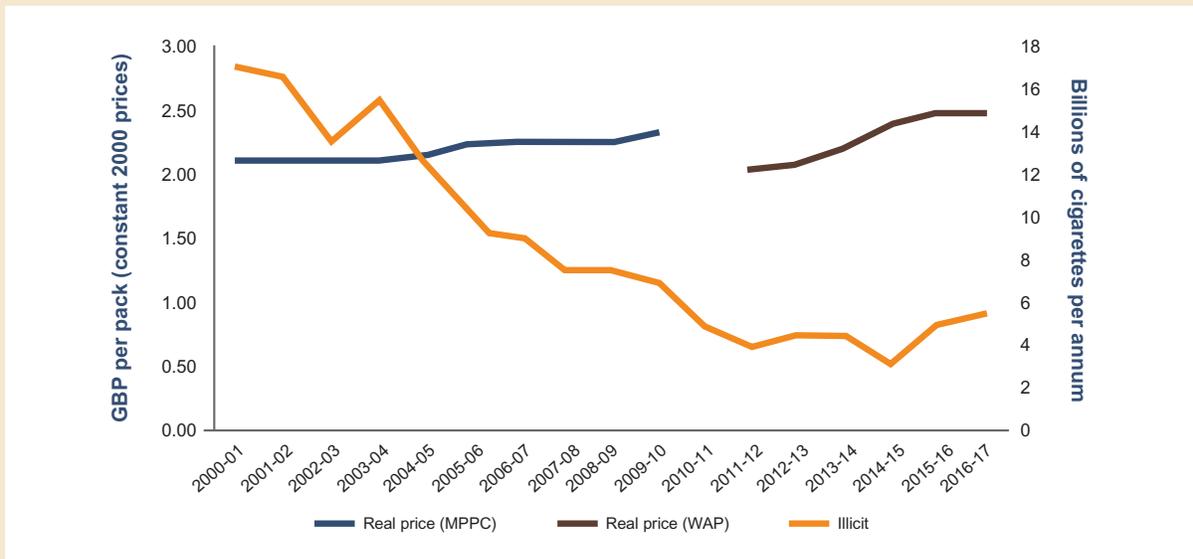
Cigarette prices and illicit cigarette trade (by market share) in the UK, 2000-01 and 2016-17



Source: HMRC (2018); European Commission (2018); ONS (2018)
 Note: MPPC is the most popular price category, while WAP is the weighted average price.

Figure 8

Cigarette prices and illicit cigarette trade (by volume) in the UK, 2000-01 and 2016-17



Source: HMRC (2018); European Commission (2018); ONS (2018)
 Note: MPPC is the most popular price category, while WAP is the weighted average price.

contraband before it enters the UK (NAS, 2015; National Audit Office, 2013).

The UK was very successful in reducing the share of illicit cigarettes in the market, as it dropped from 22% of total consumption in early 2000s to a low of 8% in 2011-12 and 2014-15 (Figure 7) (HMRC, 2013). An important distinction should be made here about how to measure illicit trade. The UK data allows us to express the scale of illicit trade as a percentage of the total market, as is done in Figure 9, but also in total volume (Figure 8). While the illicit market share rose from 8% in 2011-12 to 11% in 2013-14—a seemingly sizable increase—the volume of illicit cigarettes remained relatively flat, since the increase in the market share of illicit cigarettes was due to a sharper decline in total consumption rather than a substantial increase in the illicit market. A part of the UK illicit tobacco strategy was to reduce the overall demand for tobacco products by regularly increasing tobacco taxes above inflation and implementing other evidence-based tobacco control policies. As a result, adult smoking prevalence declined from 27% in 2000-01 to 16% in 2016-17.

In this way, the UK has successfully combatted the illicit cigarette trade using “traditional methods” such as enforcement and intelligence gathering, while increasing tobacco taxes and tobacco tax revenue (Figure 9).

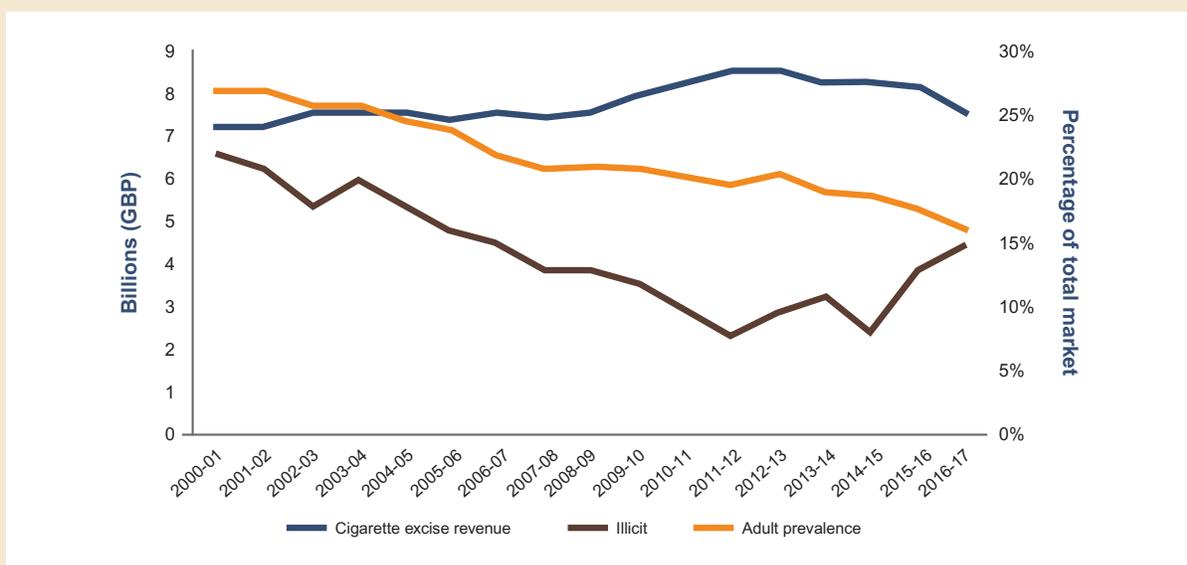
The UK is among the few countries that provide official estimates of the size of the illicit market and make statistics on seizures available to the public. These data provide a clearer picture of the effects of different policies and the evolving nature of illicit trade, and also enhance public trust and cooperation with the authorities in the battle against illicit tobacco products (Sweeting et al., 2009).

Turkey

The experience of Turkey demonstrates the feasibility and cost-effectiveness of combatting the illicit tobacco trade by implementing a track and trace system while successfully increasing tobacco taxes and reducing tobacco use.

Track and trace systems combine package markers with a national record-keeping system to enable

Figure 9
Impact of anti-smuggling measures in the UK



Source: HMRC (2018); European Commission (2018); HMRC (2018c)

tracking of tobacco products throughout the supply chain, authentication, and tracing the movement of products subject to inspection. They serve as a tax evasion prevention mechanism and facilitate investigations of non-compliance. A track and trace system might be less effective at controlling illegal manufacturing or counterfeits, even though it aids their detection in the retail environment and increases the distribution costs of such products.

In 2007, Turkey implemented a digital tax stamp system run by a private company, featuring a unique, covert code with product data for each cigarette pack, and invisible ink. The costs were quite reasonable—\$US 0.00436 per pack (Bilir et al., 2009). The system allowed for online monitoring and supported enhanced coordination among various government agencies. It also aided tax revenue planning, improved accounting control, and enhanced enforcement, since any products without tax stamps could have been clearly identified and seized (Çetinkaya and Marquez, 2017). Using a smartphone app, end consumers can verify the authenticity of the tax stamp and the product. The track and trace system

was accompanied by enhanced border enforcement and increased penalties for involvement in illicit tobacco trade.

Within the first year, tobacco tax revenue increased by 31.5%, and from 2006 to 2011 revenue increased by 83% (Meyercord Revenue, 2015). Between 2006 and 2010, overall daily adult smoking prevalence declined from 33.4% to 25.4% (Tayyan, 2013).

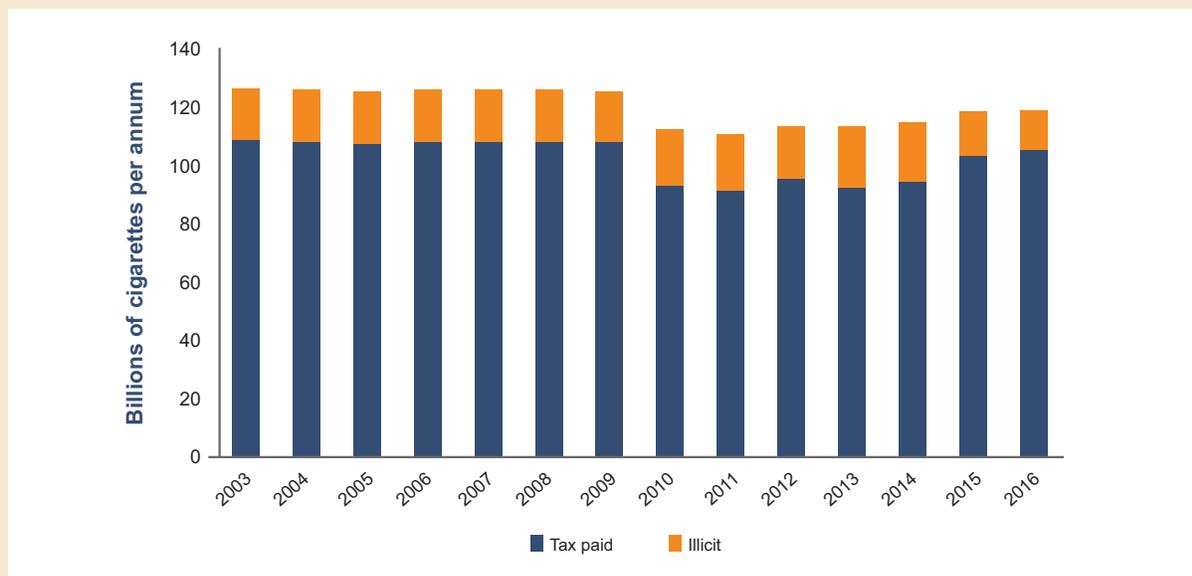
It is evident from these figures that Turkey has been successful in its fight against the illicit tobacco trade, even while the government was raising tobacco taxes. It is collecting significantly more tobacco tax revenue and keeping the illicit tobacco market share under control (Çetinkaya and Marquez, 2017) (Figure 10).

Philippines

The example of the Philippines demonstrates the importance of tax structure in the fight against tobacco tax evasion. In 1986, the Philippines changed its excise tax structure from a specific to an *ad valorem* system, with taxes ranging from

Figure 10

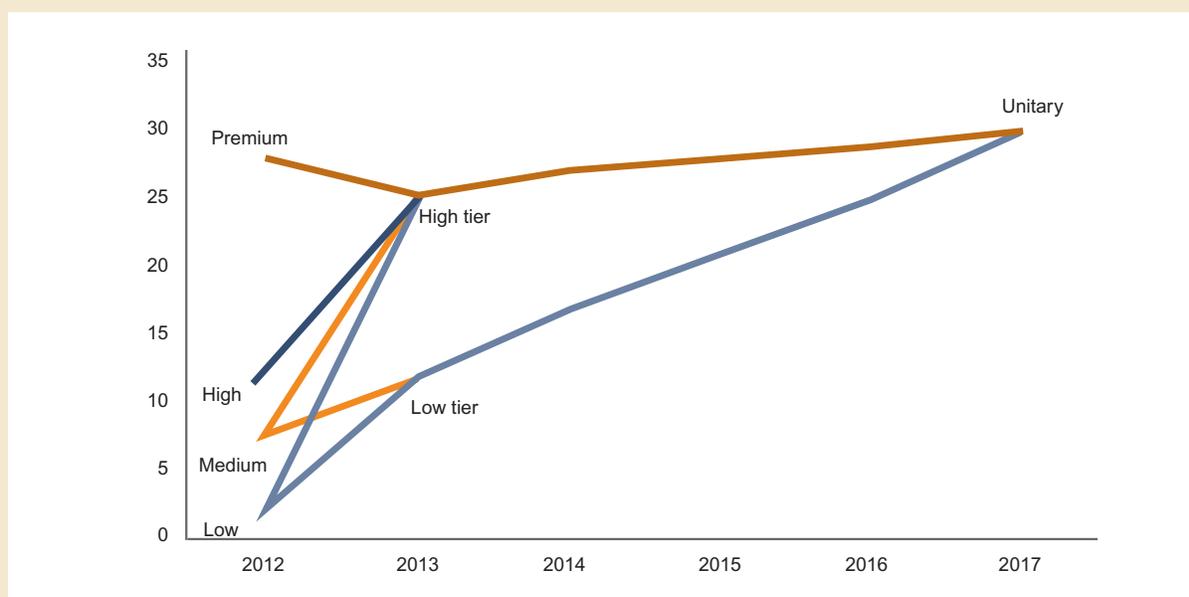
Estimates of illicit market share in Turkey, 2003-2016



Source: Euromonitor (2018)

Figure 11

Tax reform in the Philippines 2012-2017



Source: CTFK (2017)

20% to 75% of the wholesale price depending on the origin of a cigarette (a domestic or a foreign brand) and the size of a pack (30s or 20s). The industry responded by using accounting manipulation to lower wholesale prices, and the corresponding excise taxes. The government responded to this tax evasion by another change in the excise tax structure in 1997 when it returned to a specific tax system, but with multiple tiers corresponding more or less to the categories under the previous tax system. The new tax structure imposed different excise taxes on low-, medium-, and high-priced cigarettes.

However, the tobacco industry found loopholes in the new multi-tiered system as well, which the Ministry of Finance classified as technical smuggling. A 2003 report by the U.S. Department of Agriculture estimated that illicit cigarettes accounted for 25% of total consumption in the Philippines (Reyes and Wong, 2016).

In 2013, another tax reform became necessary when the Philippines abolished the multi-tiered tax system, reducing the tiers to two, and finally

adopting a unitary specific tax structure starting in 2017 (Kaiser et al., 2016) (Figure 11).

The goal of the reform was to generate revenue and reduce tobacco use, thus fulfilling the health objectives of the law, and reducing tax evasion. The additional revenue generated by the tax reform was earmarked for health (e.g., to cover health insurance for the poor, provide medical assistance, enhance health care facilities, and promote health awareness), and for development of alternative livelihoods for tobacco farmers (Kaiser et al., 2016).

The tobacco industry launched a media campaign warning that the tax reform was going to increase illicit trade in tobacco products and erode government revenue.

The tax policy reform was supplemented by administrative and enforcement measures including the implementation of the Internal Revenue Stamps Integrated System (IRSIS). This is an integrated solution run by a government agency to monitor cigarette products by affixing tamper-proof strip stamps on every pack sold in the

Philippines. IRSIS allows for efficient excise tax collection and enhances the effectiveness of monitoring and field inspections (Kaiser et al., 2016).

The government conducts on-the-spot surveillance at places of production, in warehouses, and in the retail environment to monitor compliance. The public is encouraged to engage in surveillance by using a Stamp Verifier app on their cell phones. IRSIS has aided the government in conducting raids and bringing airtight cases against tax evaders.

The import of tobacco products by duty-free shops, a huge loophole in the past, is no longer exempt from excise taxes. In addition, exporters pay the excise tax upon removal of the goods from their premises and claim the excise tax credit or refund later upon presentation of proof that the goods were exported out of the country.

The tax reform in the Philippines was a huge success, both in terms of revenue and public health gains. The prevalence of cigarette use dropped sharply (from 28.3% in 2009 to 22.7% in 2015)

(CTFK, 2017) and the higher-than-expected revenues from tobacco taxes disproved industry predictions that the government would lose revenue to illicit trade (Figure 12).

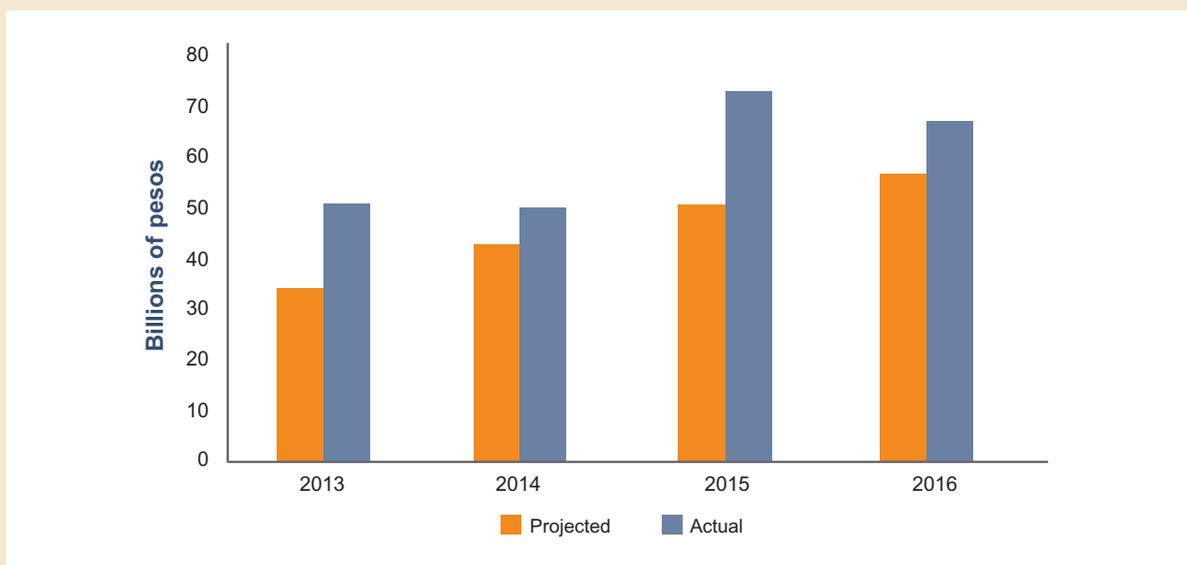
The industry suggested that by 2014 the illicit cigarette market share in the Philippines would increase to 19.4%, with the majority of these cigarettes coming from domestic illicit production. However, the World Bank estimated that illicit cigarette consumption was about 5% (Kaiser et al., 2016). This estimate was based on the rate of compliance with the new tax stamp regime introduced in early 2015 (Figure 13). By September 2015, holographic tax stamps were on over 95% of packs in the retail space, and by March 2016, 99.6% of packs in the retail space exhibited the tax stamp (Kaiser et al., 2016).

Discussion

The examples of the UK, Turkey, and the Philippines demonstrate that countries can effectively manage or reduce illicit trade while undergoing tax reforms and increasing tobacco tax

Figure 12

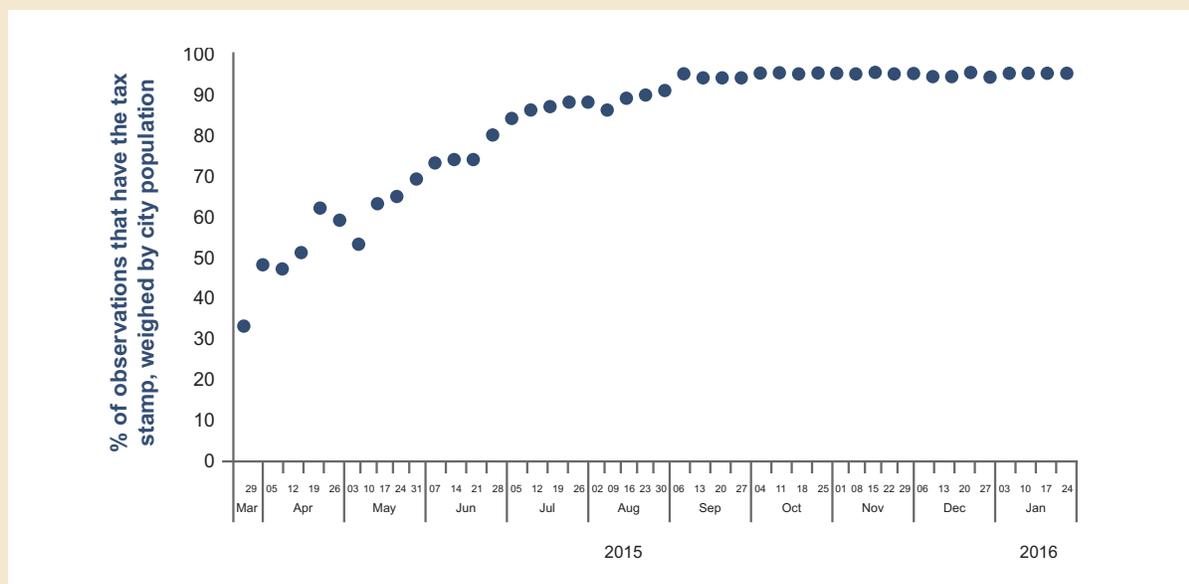
Projected and actual incremental revenue after the 2013 tax reform



Source: Philippine Bureau of Internal Revenue

Figure 13

Percentage of cigarette packs observed in retail with tax stamp, March 2015-January 2016



Source: Premise as presented in Kaiser, Bredenkamp and Iglesias (2016)

rates. Furthermore, tax increases and reforms of tax structures generate additional tax revenue that can be invested in tax administration and enforcement measures, and further enhance the effectiveness of tobacco tax policy in terms of both fiscal and public health benefits.

More recently, several countries have responded to the illicit trade in tobacco products by focusing on technological solutions, such as implementation of track and trace systems. Those countries include Brazil (see previous discussion), Turkey, and the Philippines. While the UK did not have a track and trace system, it is currently implementing one for cigarettes and roll-your-own tobacco along with other EU countries as per the EU Tobacco Products' Directive.

Since track and trace systems are designed based on specific country conditions and their budgets, their effectiveness varies by country. Even an elaborate system is generally non-intrusive and requires only minor adjustments to production lines. One targeted criticism by the tobacco

industry is the costs related to their implementation. The main factors affecting the direct costs of these systems are the size of the market, product mix, scope of domestic manufacturing, imports and exports, operational complexity, comprehensiveness and length of the contract with a system provider, level of industry concentration, implementation strategy, functionalities (e.g., integration with existing operational systems, required data analysis), and financial factors (e.g., financing arrangement and the degree of customization).

A cost estimate for the European Union that included tracking and tracing with security markers, was about 0.0090 Euro per pack (Eurogroup Consulting and Sovereign Border Solutions, 2015), while the most comprehensive country-level solution costs around \$US 0.02 per pack/mark (Wahome, 2012; Agcaoli, 2010). It is important to bear in mind that the cost of a comprehensive solution could be lower compared to a simple tax stamp solution (Ross, 2017).

Manufacturers usually bear the costs of the system, while financing arrangements with the system's provider can cover the upfront investment (Colledge, 2012; Ross, 2017). Given the relatively low unit cost of a track and trace solution and the financing options, even low-income countries can implement it.

The indirect costs of track and trace systems are related to the establishment of a legal/regulatory framework (e.g., enforcement costs and public information costs) and to stakeholders' resistance (SICPA, 2012).

A few countries, such as Canada and Sweden, have tried to solve their illicit trade problem by reducing excise taxes on cigarettes, with highly negative consequences for both consumption and revenues (NCI, 2016). Recently, Pakistan introduced a new, lower tobacco tax tier to address its vast tobacco excise evasion. This resulted in a tax loss of Rs 15 billion (\$US 130 million) in the following year (Junaidi, 2018), and about a 30% cigarette price cut (CTFK, 2018). It can be expected that these lower prices will lead to higher cigarette consumption, which is associated with negative public health outcomes.

Globally, the Protocol to Eliminate Illicit Trade in Tobacco Products (ITP), adopted at the 5th Conference of the Parties in November 2012, outlines three main strategies of measures to reduce and prevent illicit trade in tobacco products:

1. Controlling the supply chain of tobacco products (Articles 6-13);
2. Addressing unlawful conduct and criminal offenses through enforcement (Articles 14-19); and
3. Promoting international cooperation through information sharing, mutual administrative and legal assistance, and extradition (Articles 20-31) (Ross et al., 2015).

The ITP stresses the importance of controlling the entire supply chain from the fields where tobacco leaves are grown, to the port of entry, to the final purchase by the individual consumer (Moreno-Dodson and Marquez, 2017). It sets out clear

mandatory requirements on ITP Parties to license the manufacturing, importing, and exporting of tobacco products and manufacturing equipment. Other activities, such as retailing tobacco products, growing and transporting tobacco, wholesaling, brokering, warehousing, or distributing tobacco products or manufacturing equipment, should be licensed where possible, given national circumstances. These measures will increase the difficulty for unlicensed persons to access essential ingredients or machinery used for tobacco product manufacturing.

The licensing of inputs into the supply chain has been recently (January 2018) applied in Ontario, Canada, in response to the presence of unlicensed factories. The regulation provides better control over "chemical acetate tow," an integral ingredient in the manufacture of cigarette filters, by restricting its import and possession to registered manufacturers (Province of Ontario, 2017). The goal of this regulation is to reduce untaxed and unregulated tobacco products in Ontario, which undermines health and fiscal objectives (Office of Premier, Province of Ontario, 2017).

As of 2018, the UK requires a license for tobacco manufacturing machinery in addition to a license to manufacture tobacco products. Tobacco manufacturing machines discovered without a valid license will be subject to seizure and enhanced controls to prevent the manufacture of illicit tobacco products (HMRC, 2018b).

Countries can also license and control cigarette papers due to a small number of producers. The existence of a unique harmonized tariff code for this product would facilitate its control (NRC and IOM, 2015).

Further, the ITP calls on parties to implement effective controls of free trade zones and duty-free sales since they facilitate the transit, manufacture, and sale of illicit tobacco products. The implementation of such controls will require international negotiation and collaboration (Holden, 2017).

Any enforcement mechanism envisioned under the ITP would be subject to the basic principles of domestic law. Therefore, the enforcement

measures will vary greatly across countries. It is expected that adopting strategies outlined in the ITP will enhance global capacity to reduce illicit trade in tobacco products (Ross et al., 2015).

Conclusion

This paper focused on five key messages related to illicit tobacco:

1. The tobacco industry uses illicit trade to oppose tax increases, specifically arguing that increases in tobacco taxes will lead to increases in illicit trade, which, in turn, will undermine public health and fiscal policy objectives.
2. The tobacco industry exaggerates the scale and extent of illicit trade as a means of advocating against tobacco tax increases.
3. Taxes and prices are not the key driver and determinant of illicit trade; many other factors are more likely to be causal in the levels of illicit trade.
4. Even in the presence of illicit trade, experience from a wide range of countries find that increases in tobacco taxes have consistently produced significant fiscal and health benefits through increases revenue and reduced tobacco use.
5. If governments are concerned about the levels and/or extent of illicit trade, there are many policy, administrative, and enforcement measures they can undertake to reduce illicit trade, even while increasing tobacco taxes.

This paper has shown that in regard to the first message, tobacco companies have frequently used illicit trade to oppose tobacco tax increases and other policy measures. While they have argued that higher taxes and prices and other tobacco control measures will motivate smokers to purchase illicit cigarettes, research has demonstrated that the opposite is true, as higher taxes have led to lower consumption and higher revenues, even in the presence of illicit trade. The industry arguments are further undermined by frequently increasing prices by more than the tax increase.

While nearly 12% of the global market is occupied by illicit cigarettes, message two has shown that independent data consistently shows lower levels of illicit trade than industry data and that industry data is generally not a reliable indicator of illicit trade. Furthermore, given the challenges in measuring illicit trade, innovative methods are required to estimate levels and trends. Additionally, most countries will need to collect baseline data on the size of the illicit tobacco product market and the nature of the illicit trade.

Contrary to tobacco industry narratives, taxes and prices only have a weak association with the illicit cigarette market at the country level, as shown in message three. Studies indicate that the illicit market is higher in countries with low taxes and prices, while relatively smaller in countries with higher taxes and prices. Generally, countries with higher levels of illicit trade have weak tax administration and enforcement systems.

Evidence supporting message four shows that even in the presence of illicit trade, the goals of reducing the health consequences of tobacco use and increasing revenues are very likely to be met as a result of tobacco tax increases. Generally, the revenue loss due to tobacco tax evasion/avoidance is small, both in absolute (the total amount to be recovered) and relative (in comparison to tax evasion/avoidance on other taxable items) terms.

Message five highlights case studies of countries that took deliberate actions to reduce the levels of illicit trade through improved tax administration and enforcement, including the implementation of technological solutions like track and trace systems. It shows the need to set up a surveillance system to monitor the market over time and evaluate the impact of various control measures and other factors. Such a surveillance system should also collect data on the tobacco industry's efforts to undermine the governments' actions to control illicit trade, including industry interference with the implementation of the ITP.

The effective control of illicit trade in tobacco products will require an implementation of ongoing surveillance and data analyses to provide timely feedback to decision makers. Globally, as

well at the country level, it will be important to study tobacco product supply chains in order to design effective measures to control it. Countries should also assess the effectiveness of their tax structure and tax administration to better understand tax avoidance and tax evasion schemes and to address them.

Finally, countries should document their efforts to control illicit trade in tobacco products, including any investments made into improving tax administration so that the effectiveness of the various approaches can be studied, including the return on those investments.

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