

**Section 5**  
**Policy and Other Influences on the Supply of Tobacco Products**

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**Chapter 14**  
**Tobacco Tax Avoidance and Tax Evasion**

# Chapter 14

## Tobacco Tax Avoidance and Tax Evasion

Tax avoidance (licit) and tax evasion (illicit) undermine the effectiveness of tobacco control policies, particularly higher tobacco taxes. These activities range from legal actions such as purchasing tobacco products in lower tax jurisdictions, to illegal ones such as smuggling, illicit manufacturing, and counterfeiting. This chapter examines:

- Types of tax avoidance and tax evasion
- Measurement of tax avoidance and evasion
- Determinants of tax avoidance and evasion
- Measures to counteract tax evasion, including the World Health Organization Framework Convention on Tobacco Control Protocol to Eliminate the Illicit Trade in Tobacco Products.

The tobacco industry and others often argue that high tobacco product taxes lead to tax evasion. However, the evidence shows that non-tax factors including weak governance, high levels of corruption, poor government commitment to tackling illicit tobacco, ineffective customs and tax administration, and informal distribution channels for tobacco products are often of equal or greater importance. Addressing illicit trade requires concerted attention to these root causes.

## Chapter Contents

|  |     |
|--|-----|
| Introduction.....  | 507 |
| Means of Circumventing Taxes.....                                      | 507 |
| Measurement of Tobacco Tax Avoidance and Evasion.....                  | 511 |
| Expert Opinion.....  | 512 |
| Monitoring Trade.....  | 512 |
| Comparing Sales With Consumption.....                                  | 514 |
| Survey-Based Measures.....   | 514 |
| Econometric Modeling.....  | 516 |
| Observational Methods.....   | 517 |
| Determinants of Tax Avoidance and Evasion.....                         | 518 |
| The Impact of Tax and Price Differences.....                           | 518 |
| Weak Governance.....   | 523 |
| Tax and Customs Administration and Control of Illicit Trade.....       | 524 |
| National Efforts to Curb Illicit Cigarette Markets.....                | 526 |
| Duty-Free Shops and Free Trade Zones.....                              | 528 |
| The Tobacco Industry’s Involvement in Illicit Trade.....               | 529 |
| Illicit Trade Routes.....  | 531 |
| Measures to Tackle Illicit Activities: The Illicit Trade Protocol..... | 531 |
| Tracking and Tracing Regimes.....                                      | 532 |
| Licensing Tobacco Producers, Distributors, and Retailers.....          | 533 |
| Posting Bonds on Cigarette Shipments.....                              | 533 |
| Improved Enforcement and Application of Stronger Penalties.....        | 534 |
| Increased Resources and Stronger Cooperation.....                      | 534 |
| Ending Sales of All Duty-Free Tobacco Products.....                    | 535 |
| Public Awareness Campaigns.....  | 535 |
| Illicit Trade in Other Tobacco Products.....                           | 535 |
| Summary.....   | 536 |
| Research Needs.....  | 537 |
| Conclusions.....   | 537 |
| References.....  | 538 |

## Figures

|  |     |
|--|-----|
| Figure 14.1 Circumventing Taxes by Tax Avoidance and Evasion.....  | 510 |
| Figure 14.2 Winners and Losers in Tobacco Tax Avoidance and Evasion.....   | 511 |
| Figure 14.3 Global Cigarette Exports and Imports and the Trade Discrepancy Between Them,<br>1972–2012.....                               | 513 |
| Figure 14.4 Tax Avoidance by U.S. Smokers at Last Purchase, November 2002–June 2011.....   | 515 |
| Figure 14.5 Where Current Smokers Acquired Cigarettes in the Past 30 Days, by Country, 2010.....   | 516 |
| Figure 14.6 Taxation and Weighted Average Price on a Pack of 20 Cigarettes, in U.S. Dollars, in<br>Selected EU Countries, 2012–2013..... | 519 |
| Figure 14.7 Illicit Trade Versus Retail Price for the Most Popular Brands, by Country Income<br>Group, 2007.....                         | 521 |
| Figure 14.8 Share of Illicit Trade Versus Retail Prices of the Most Popular Brands, by Country,<br>2012.....                             | 522 |

|  |     |
|--|-----|
| Figure 14.9 Cigarette Taxes and Estimated Illicit Cigarette Market Share, United Kingdom, 1993–2010 .....                                | 523 |
| Figure 14.10 Share of Illicit Trade Versus Corruption, by Country, 2011 .....  | 525 |
| Figure 14.11 Illicit Cigarette Market Share and Percentage of Most Popular Price Category Accounted for by Taxes, Spain, 1991–2011 ..... | 527 |
| Figure 14.12 Illicit Cigarette Market Share and Percentage of Most Popular Price Category Accounted for by Taxes, Italy, 1991–2010 ..... | 528 |
| Figure 14.13 Hand-Rolling Tobacco Market in the United Kingdom—Duty-Paid Versus Non-Duty-Paid Sales, 1990–2012 .....                     | 536 |

## Introduction

Activities aimed at circumventing taxes for tobacco products through licit (tax avoidance) and illicit (tax evasion) channels undermine the effectiveness of tobacco control policies. Extensive tax avoidance and evasion diminish, but do not eliminate, the degree to which significantly higher tobacco taxes can reduce tobacco use and increase government revenues. Tax avoidance and evasion activities can weaken the impact of pictorial health warning labels and other pack markings, bans on the use of various product descriptors, and other forms of product regulation by increasing the availability of tobacco products not subject to these policies. Tax avoidance and evasion can also reduce the effectiveness of policies restricting youth access to tobacco products.

Individual tobacco users, small-scale operators, large crime syndicates, and, at times, the tobacco companies themselves have engaged in a variety of tax avoidance and tax evasion activities. Because these actors may have a stake in keeping their tax avoidance or tax evasion secret, it is often difficult to assess the extent to which these activities take place. Tobacco companies have argued that high tobacco taxes are the primary cause of tax avoidance and tax evasion and that governments that raise taxes will increase the level of tax avoidance and tax evasion, potentially decreasing revenues collected. However, research demonstrates that many factors besides tobacco taxes are of equal or greater importance in determining the level of tax evasion, and that governments can raise taxes and at the same time effectively decrease tax evasion.

Governments have adopted various strategies to limit tax avoidance and tax evasion and have strengthened enforcement efforts and increased penalties to curb tax evasion. While these efforts have had some success, considerable work remains to be done.

Article 15 of the World Health Organization (WHO) Framework Convention on Tobacco Control (WHO FCTC) obliges Parties to control illicit trade in tobacco products. As will be described in this chapter, illicit trade in tobacco products is now the subject of its own international treaty. The WHO FCTC Protocol to Eliminate the Illicit Trade in Tobacco Products (ITP), adopted in November 2012 and ratified by 24 countries (as of October 2016), aims to eliminate all forms of illicit trade in tobacco products by using a combination of national measures and international cooperation.<sup>1</sup>

## Means of Circumventing Taxes

Terms to describe tobacco tax avoidance and tax evasion activities are often used interchangeably, but all have specific and distinct meanings (see Box 14.1). Further information on terminology can be found in the following publications: *WHO Technical Manual on Tobacco Tax Administration*,<sup>2</sup> *Combating the Illicit Trade in Tobacco Products from a European Perspective* (WHO FCTC Regional Studies Series paper),<sup>3</sup> *Effectiveness of Tax and Price Policies for Tobacco Control* (International Agency for Research on Cancer handbook),<sup>4</sup> *Understanding and Measuring Cigarette Tax Avoidance and Evasion: A Methodological Guide* (Tobacconomics and the Economics of Tobacco Control Project),<sup>5</sup> *Understanding the U.S. Illicit Tobacco Market: Characteristics, Policy Context, and Lessons from International Experiences* (U.S. National Research Council [NRC] and Institute of Medicine [IOM]),<sup>6</sup> *Preventing and Reducing Illicit Tobacco Trade* (report by the Centers for Disease Control and Prevention [CDC], an agency of the U.S. Department of Health and Human Services),<sup>7</sup> and a book chapter by Merriman and colleagues.<sup>8</sup>

### Box 14.1: Tobacco Tax Avoidance and Tax Evasion Terminology

**Tax avoidance:** Legal methods of circumventing tobacco taxes, including tax-free purchases and the purchase of tobacco products in other jurisdictions in amounts allowable under customs regulations.

**Tax evasion:** Illegal methods of circumventing tobacco taxes, including the purchase of smuggled and illegally manufactured tobacco products.

**Illicit trade:** Any practice or conduct prohibited by law, which relates to production, shipment, receipt, possession, distribution, sale, or purchase, including any practice or conduct intended to facilitate such activity (as defined by Article 1 of the World Health Organization Framework Convention on Tobacco Control).

**Smuggling:** The illegal trading of products across borders.

**Large-scale organized smuggling:** The illegal transportation, distribution, and sale of large consignments of cigarettes and other tobacco products.

**Bootlegging:** The purchase, by individuals or small groups, of tobacco products in low-tax jurisdictions in amounts that exceed the limits set by customs regulations, for resale in high-tax jurisdictions.

**Ant smuggling:** The organized and frequent crossing of borders by a large number of individuals with relatively small amounts of low-taxed or untaxed tobacco products.

**Illicit manufacturing:** The production of tobacco products contrary to law. The laws in question may be taxation laws or other laws (such as licensing or monopoly-related laws) that restrict the manufacture of tobacco products.

**Counterfeit tobacco production:** A form of illicit manufacturing in which the manufactured products bear a trademark without the consent of the owner of the trademark. Illegally manufactured products may be sold on the domestic market or smuggled into another jurisdiction.

**Illicit whites** (also called “cheap whites”): Cigarettes manufactured by legitimate business enterprises, but for which a large share of production is sold illegally outside of the jurisdiction in which they are produced.

Circumventing taxes through illicit tobacco production and trade involves both genuine and counterfeit tobacco products. Illicit manufacturing of genuine tobacco products is more likely to be done by a legal tobacco company, which does not declare these products to tax authorities but diverts them through illegal channels to domestic and international black markets. Counterfeit products, on the other hand, are more likely to be produced by illegitimate tobacco companies. Due to the nature of counterfeiting, companies producing counterfeit products are less likely to keep records on these products or where they are produced.

Figure 14.1 depicts an organizational scheme for classifying the type, agent, venue, and scale of the activities involved in tax avoidance and tax evasion. This figure gives an idea of the complexity of these activities, which may be carried out by individuals acting alone, by small groups, or by organized criminal networks. It is not intended to reflect all licit and illicit activities, including legal sales that do not avoid or evade taxes.

Tax avoidance activities differ by the type or location of purchase, and individuals pay some taxes on purchases, except for those that are duty free. For example, when individuals residing in higher tax jurisdictions purchase tobacco products in nearby lower tax jurisdictions, they pay the tax levied in the

lower tax jurisdiction. This *cross-border shopping* can involve shopping across local, state, or national borders. Purchasing tobacco products in more distant low-tax jurisdictions during a visit is called *tourist shopping*. When individuals purchase their products in low-tax jurisdictions online, through the mail, or over the phone, this activity is referred to as *Internet and other direct shopping*. For these purchases, individuals pay the tax specified in the jurisdiction where the seller is located. Purchasing tobacco products on airlines or in tax-free areas of airports and other travel-related venues is called *duty-free shopping* and does not involve any tax payment.<sup>4</sup>

Tobacco companies can avoid taxes by stockpiling, reformulating, and/or repositioning their products so that their tax liability is reduced.<sup>9</sup> As will be described in this chapter, these activities are facilitated by weak tax administration, complex tax structures, and loopholes in tobacco tax systems.

In contrast to tax avoidance, tax evasion involves illegal methods of circumventing tobacco taxes. *Bootlegging*, often performed by individuals or small organized groups, takes place across different tax jurisdictions, such as U.S. states or European Union (EU) countries, where crossing borders is relatively easy.<sup>4,6</sup> In the case of *cross-border bootlegging*, the quantity purchased exceeds amounts specified by law or customs regulations, and purchases are intended for resale in a higher tax jurisdiction.<sup>10</sup> As with cross-border tax avoidance, bootleggers pay the taxes that apply in the low-tax jurisdiction where the products are purchased.<sup>4</sup>

Large-scale smuggling or illicit trade, where all taxes are generally circumvented, is a much more serious issue because it typically involves transport of large quantities of cigarettes, usually internationally known brands, over longer distances, and distribution by large organized crime networks.<sup>11</sup> Large-scale smuggling provides revenue to criminal networks, generating additional costs associated with violence or law enforcement.<sup>2</sup> Large-scale illicit trade often targets exported cigarettes because they are rarely taxed in the exporting country. In some cases, large-scale smuggling occurs when products are destined for one country but are illegally distributed to other countries along the transit route. In other cases, domestic tobacco manufacturers produce tobacco products and identify them as intended for export, but then divert these cigarettes into the domestic market.<sup>12</sup>

Tobacco tax avoidance and evasion have stakeholders who are affected positively or negatively by these activities (Figure 14.2). Public health, society, and many governments are the losers in both cases. For example, Joossens and colleagues<sup>10</sup> estimated that illicit cigarettes accounted for 11.6% of cigarette consumption in 84 countries in 2007. The authors further estimated that, if global illicit trade were eliminated, governments would immediately gain at least 31 billion U.S. dollars (US\$) in revenue, and beginning in 2030, more than 160,000 lives would be saved per year. Some governments, however, benefit insofar as local taxes are paid before products are smuggled out of their jurisdiction. Smokers who consume counterfeit or smuggled legitimate cigarette brands may appear to gain a short-term economic benefit from these products' relatively lower prices versus legally available brands, but they are also losers in terms of the economic and health consequences of smoking. Legitimate tobacco companies gain from smuggling their legitimate products because their sales increase, but they lose from counterfeiting because of the competition from counterfeit brands.

Figure 14.1 Circumventing Taxes by Tax Avoidance and Evasion

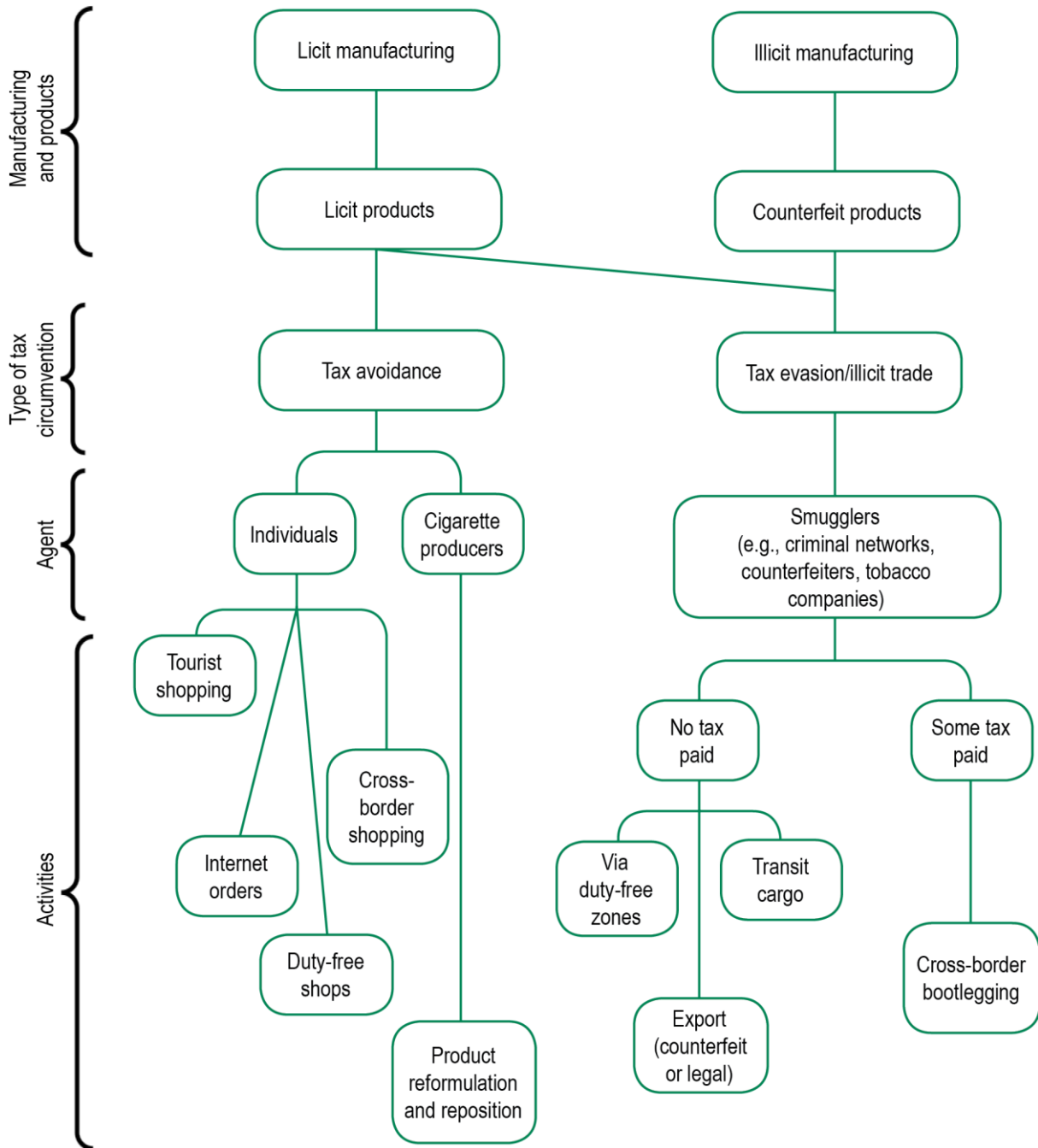
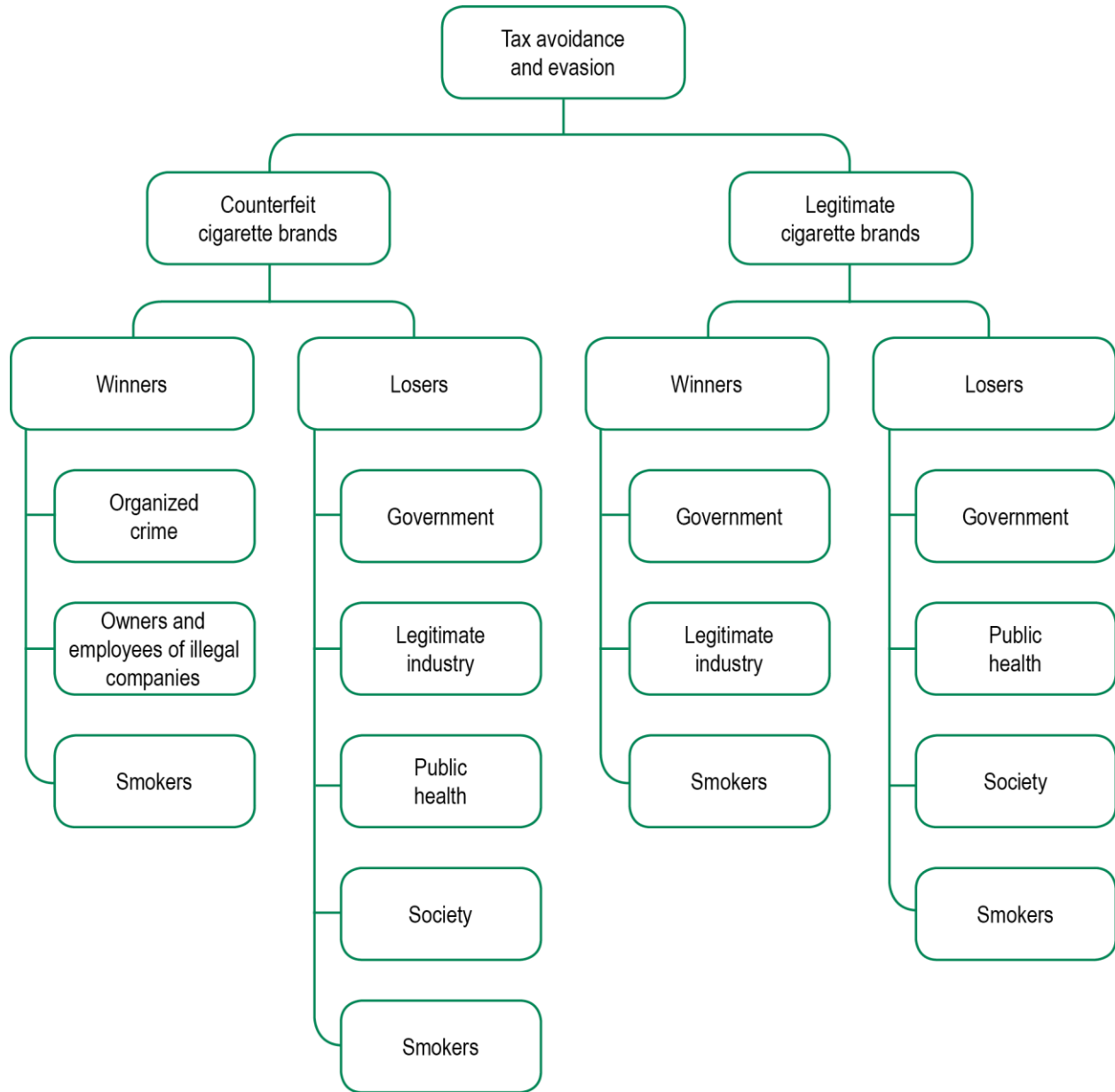




Figure 14.2 Winners and Losers in Tobacco Tax Avoidance and Evasion



### Measurement of Tobacco Tax Avoidance and Evasion

It is a challenge to understand the nature of tobacco tax avoidance and evasion that goes on at the country, regional, or global level and estimate the extent of these practices. Studies of tax avoidance and evasion have used several approaches, including relying on expert opinion, monitoring tobacco trade, comparing sales with consumption, as well as survey-based methods, econometric modeling of the determinants of tobacco demand, and observational methods such as assessing littered cigarette pack collections.<sup>4-6</sup> Each method has its limitations, but applying multiple approaches will enhance an estimates' reliability.<sup>4,6,13</sup> Producing reliable measures of the extent of tax avoidance and evasion can help governments design effective countermeasures that enhance the effectiveness of tobacco control policies, protect tax revenues, and decrease the threat of criminal activity.

### Expert Opinion

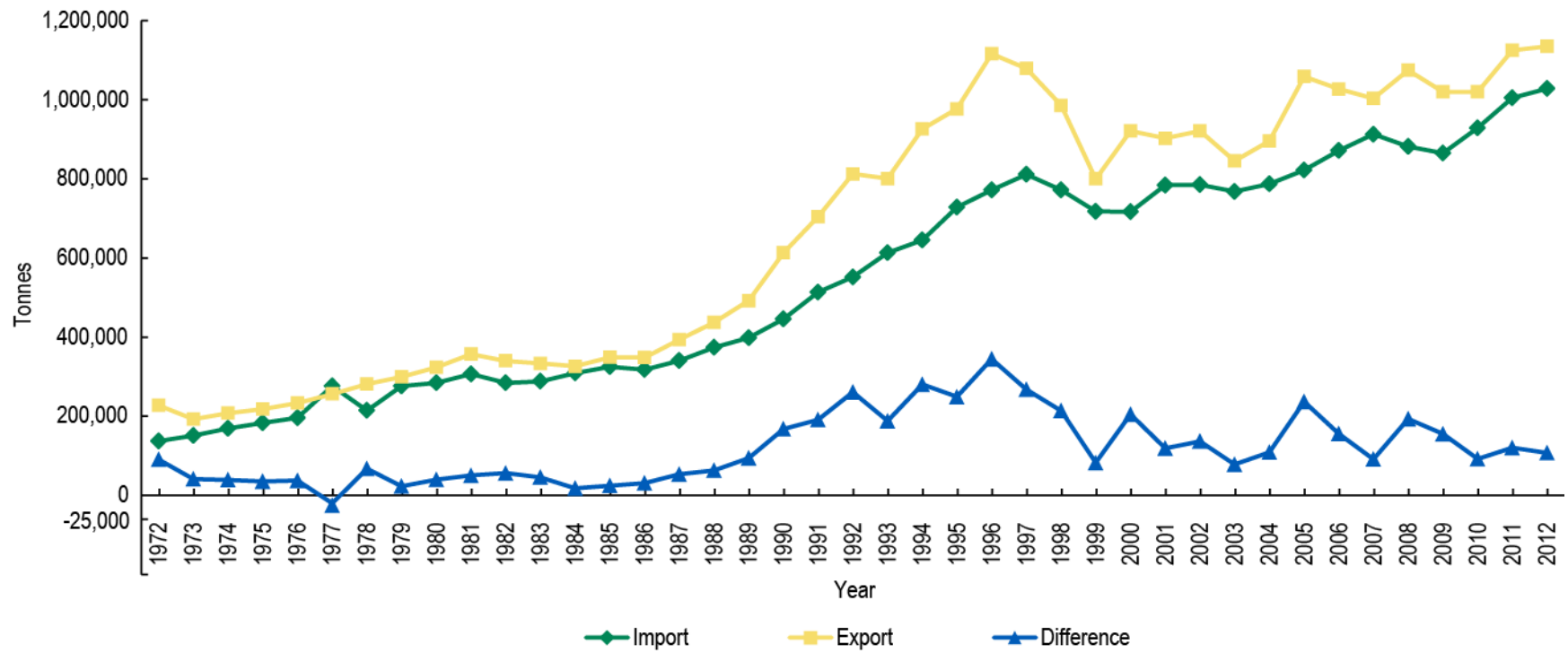
Use of expert opinion is a common method for quantifying the level of tax evasion and avoidance, especially for estimates reported in trade and government publications.<sup>4</sup> Consultants commonly called on include tobacco industry representatives, tobacco control advocates, academics, and policy and/or customs officials who are familiar with local market conditions and may have knowledge of a particular situation. One limitation of this method is that the opinions may be biased, given the expert respondent's position. Additionally, opinions based on seizures of illicit goods will be inaccurate if the seizures are not representative of the entire market, and may not be meaningful for comparisons over time or between countries because of differences in investigative techniques, reporting procedures, and enforcement. Despite these limitations, measures based on expert opinion are generally consistent with those derived from other approaches.<sup>6,13</sup>

### Monitoring Trade

Trade in tobacco products is monitored to measure global, regional, and (to some degree) country-level illicit trade. At the global and regional levels, this approach compares reported tobacco exports and imports and assumes that discrepancies between exports and imports reflect illicit trade. At the country level, this approach compares exports destined for a country to the destination country's reported imports. However, this method does not capture illicit trade of counterfeit products and illicit production of genuine products, and some discrepancies between exports and imports may be explained by other factors, such as errors in commodity classification, time lags between exports and imports, misallocation of imports by country, and over-invoicing of exports. Nonetheless, persistent discrepancies not explained by other factors can provide some estimate of the level of illicit trade.<sup>5,6</sup>

Merriman and colleagues<sup>8</sup> compared recorded cigarette imports and exports from the mid-1970s through the mid-1990s. They found that the ratio of exports to imports ranged from 1.14 to 1.57 during this period and concluded that about 6% of global cigarette consumption might be illicit.<sup>8</sup> Figure 14.3 shows the total global cigarette exports and imports, and the discrepancy between the two from 1972 to 2012. The discrepancy between exports and imports rose sharply in the early 1990s, peaking in 1996.<sup>14</sup> The subsequent drop, albeit uneven, suggests that diversion of exported cigarettes has since become a less important source of illicit cigarettes.

Figure 14.3 Global Cigarette Exports and Imports and the Trade Discrepancy Between Them, 1972–2012



Source: FAOSTAT 1972–2012.<sup>14</sup>

### Comparing Sales With Consumption

Comparing tax-paid sales with consumption levels estimated from nationally representative consumer behavior surveys, called a tax gap analysis, makes it possible to estimate the taxes that would have been collected for the estimated level of consumption and compares the result with the amount of taxes actually collected. The difference between these two values is an indicator of the level of tax avoidance and evasion. Several sources of reporting bias are possible when applying this methodology.<sup>12</sup> Survey respondents may understate their actual cigarette consumption, creating uncertainty about the extent of tax avoidance and evasion.<sup>4</sup> For example, a 2010 report of the U.S. Department of Treasury found that the U.S. National Survey on Drug Use and Health and the National Health Interview Survey indicate that consumption is roughly 30–40% lower than what tax-paid sales data indicate.<sup>15</sup> A second problem is that tax-paid sales data generally reflect shipments at the producer or distributor level and not actual consumption.<sup>16</sup>

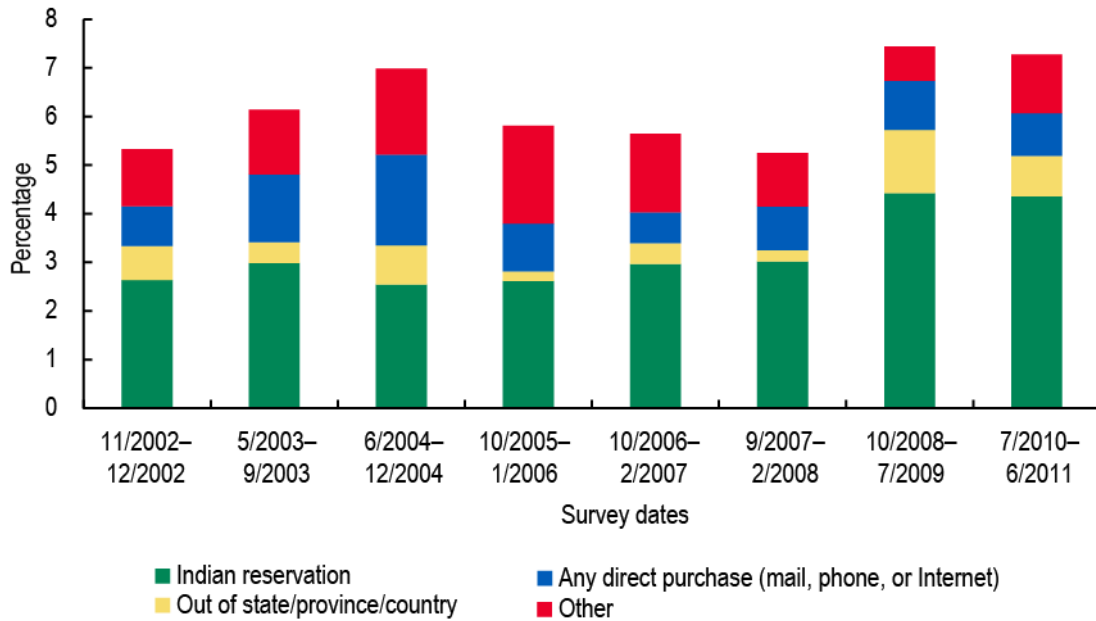
This methodology has been widely used despite the questions it raises. For example, the U.S. Department of the Treasury suggested that federal-level tax avoidance could exceed US\$ 2 billion, depending on the degree of under-reporting of consumption in surveys.<sup>15</sup> In the United Kingdom of Great Britain and Northern Ireland, Her Majesty's Revenue and Customs estimated that the share of untaxed cigarettes in the United Kingdom market reached nearly 20% in 1999/2000 but fell to 13% in 2006/2007, while the estimated illicit share of hand-rolling tobacco was 53% in 2006/2007.<sup>17,18</sup>

The NRC and the IOM estimated that between 8.5% and 21% of the total cigarette market in the United States is accounted for by illicit sales, representing between US\$ 2.95 billion and US\$ 6.92 billion in lost gross state and local tax revenues. The lower end of this estimate was based on a comparison of self-reported consumption to tax-paid sales data; the upper end was based on a national littered pack study.<sup>6</sup>

### Survey-Based Measures

Information collected from surveys of smokers' purchasing behaviors can be used to assess tax avoidance and evasion based on location and purchase price. This approach mainly detects tax avoidance rather than tax evasion, given that smokers may buy smuggled or bootlegged cigarettes from legitimate retailers unaware that taxes have not been paid on these cigarettes.<sup>13</sup>

Guindon and colleagues<sup>19</sup> reported data from the International Tobacco Control Policy Evaluation (ITC) Project surveys of representative samples of smokers in 16 low-, middle-, and high-income countries conducted between 2002 and 2011. These surveys asked questions on cross-border, duty-free, Internet, and other direct purchases, as well as purchases on Indian reservations and other options that could reflect untaxed or low-tax purchases, such as buying from street vendors. The authors found relatively low rates of tax avoidance and evasion in some countries (e.g., Australia, Mexico, and Uruguay), but higher rates in others (e.g., the United Kingdom, France, and Canada), with different trends and predominant types of behaviors in each country. In the United States, tax avoidance increased from about 5% in 2002 to about 7% in 2011, mainly because of increased purchases from Indian reservations (Figure 14.4).

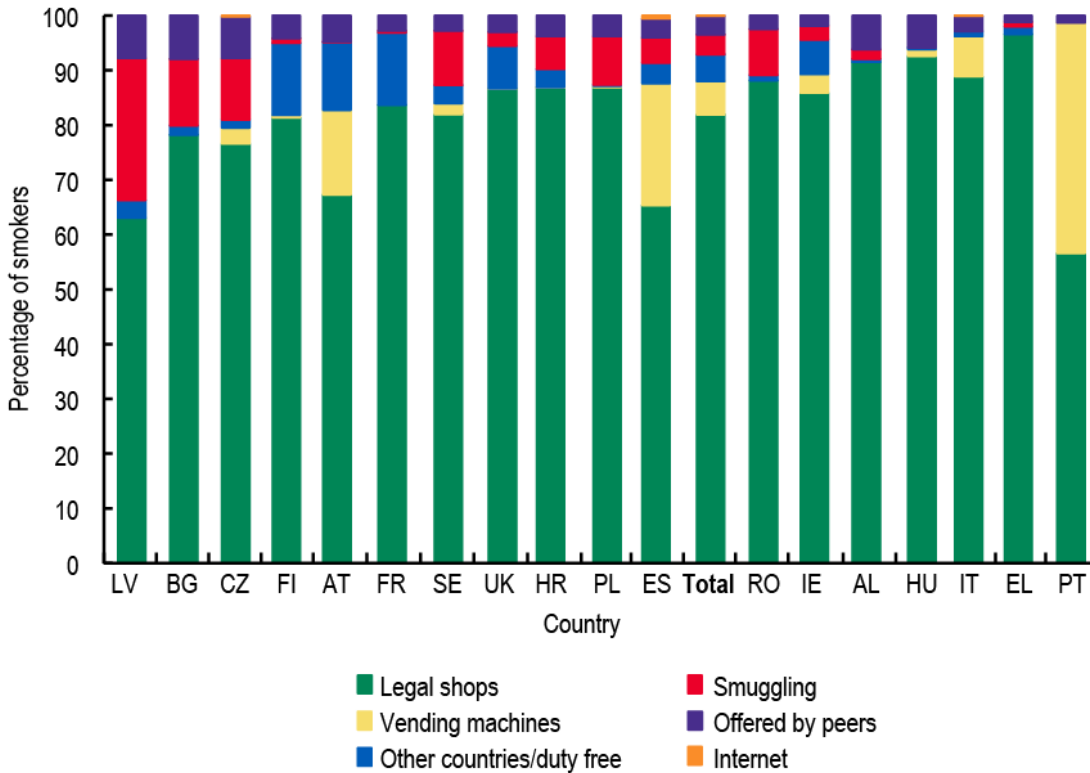
**Figure 14.4 Tax Avoidance by U.S. Smokers at Last Purchase, November 2002–June 2011**


Source: Guindon et al. 2014.<sup>19</sup>

An annual survey conducted in Italy between 2005 and 2008 on purchase behaviors, with results validated using annual seizures of cigarettes by the Guardia di Finanza (Financial Guard under the Minister of Economy and Finance), found that most smokers (91%) purchased cigarettes from tobacco shops. Only 7% purchased cigarettes from vending machines, less than 1% reported purchasing from smugglers, and none reported buying cigarettes online.<sup>20</sup>

Another example of estimating tax avoidance and evasion using survey data about consumption is the Pricing Policies and Control of Tobacco in Europe (PPACTE) project conducted in 2010 in 18 European countries.<sup>21</sup> Using computer-assisted personal interviews, this survey asked adults age 15 years and older where they purchased their cigarettes in the last month. Although the majority of respondents reported that they had purchased their cigarettes through legal shops, a substantial number of current smokers in Latvia (25.9%), Bulgaria (12.2%), the Czech Republic (11.2%), Sweden (9.9%), Poland (8.8%), and Romania (8.4%) had purchased smuggled cigarettes in the past month. This study found that purchases via the Internet were insignificant, but duty-free purchases from other countries were common, especially in Finland, France, Austria, and to some extent in the United Kingdom (Figure 14.5).

Figure 14.5 Where Current Smokers Acquired Cigarettes in the Past 30 Days, by Country, 2010



Country Abbreviations: LV = Latvia, BG = Bulgaria, CZ = Czech Republic, SE = Sweden, PL = Poland, RO = Romania, HR = Croatia, ES = Spain, UK = England, IE = Ireland, AL = Albania, FI = Finland, EL = Greece, FR = France, AT = Austria, HU = Hungary, IT = Italy, PT = Portugal.  
 Note: Countries are sorted by legal shops, including vending machines, in ascending order.  
 Source: Gallus et al. 2012.<sup>21</sup> Reprinted with permission.

### Econometric Modeling

Several studies use econometric analyses of cigarette demand, employing tax-paid cigarette sales data as a proxy for cigarette consumption and including measures of opportunities and/or incentives for tax avoidance and evasion that attempt to account for the differences between sales and consumption. Most cigarette demand studies that examine tax avoidance and evasion have come from the United States<sup>22–30</sup> with one study from Western European countries<sup>8</sup> and one global analysis.<sup>31</sup> In these studies, the variables that reflect tax avoidance and evasion are constructed on the assumption that these activities occur because of differences in prices and strength of governance between jurisdictions. These studies account for the distribution of population living near borders, tourist travel, distances between high- and low-tax jurisdictions, Internet penetration, exports, and other factors reflecting access to lower tax/price jurisdictions, as well as corruption and other measures reflecting strength of governance.<sup>8,30–32</sup> Estimates from the econometric models are used to predict sales with and without the tax avoidance/evasion measures, and the difference between predicted sales and actual sales reflects the extent of tax avoidance and evasion.

For example, Thursby and Thursby<sup>28</sup> and Yürekli and Zhang<sup>29</sup> used annual data from U.S. states and associated changes in sales with changes in tax differences over time, estimating that the extent of cross-border shopping and bootlegging varied over time but accounted for less than 10% of overall consumption. Similarly, Stehr<sup>30</sup> compared survey data from the U.S. Behavioral Risk Factor

Surveillance System with tax-paid cigarette sales data, and found that the tax avoidance response to tax changes accounted for as much as 9.6% of cigarette sales between 1985 and 2001.

Merriman and colleagues<sup>8</sup> applied the demand analysis approach to data from 23 European countries from 1989 to 1995, concluding that a tax increase that raises incentives for home country citizens to purchase cigarettes abroad will significantly reduce domestic sales. Yürekli and Sayginsoy<sup>31</sup> used data from 110 countries in 1999 and constructed a large-scale illicit trade variable based on the assumption that part of exports to neighboring countries or trade partners is camouflaged and smuggled while in transit. They estimated that, globally, 3.4% of cigarettes consumed in 1999 had been acquired through large-scale illicit trade.

### Observational Methods

Tax avoidance and evasion information can also be captured by collecting littered cigarette packs, examining smokers' cigarette packs in face-to-face surveys, swapping packs, and similar approaches. Observational methods have a number of sources of potential bias. Asking to see cigarette packs during surveys may lead to under-reporting if respondents do not want to acknowledge that they purchase smuggled cigarettes or if they remove foreign tax stamps on smuggled cigarettes, given fears of prosecution, confiscation, or embarrassment.<sup>4-6</sup> Depending on where littered packs are collected, littered pack collection can overestimate the extent of tax avoidance and evasion because they may reflect tourism or commuting patterns. Street intercept methods may not result in a representative sample of the population. Lastly, interviewers may have limited expertise and ability to distinguish counterfeit cigarettes or examine product constituents. Observational data collection is, however, a useful method for capturing some aspects of tax avoidance and evasion.<sup>13</sup>

Observational approaches have been used in several countries.<sup>5,6</sup> For example, Ciecierski<sup>33</sup> used a cross-sectional consumer survey to estimate the extent of tax avoidance and evasion in Poland between 2004 and 2006. Trained interviewers asked to examine respondents' cigarette packs for tax stamps, health warnings, and other pack markings; cigarette packs that did not have a Polish tax stamp and/or had health warnings in languages other than Polish were assumed to reflect tax avoidance and evasion. The study found that on average, 11% of cigarettes brought to sale in Poland during this period were not legally permitted. Another examination of health warnings and tax stamps on respondents' cigarette packs—the 2010 PPACTE survey—led to estimated rates of tax avoidance and evasion similar to those based on respondents' purchase behaviors.<sup>21</sup>

Lakhdar<sup>34</sup> examined a random sample of cigarette packs from a waste collection center to identify the countries of origin of foreign cigarettes entering France. Foreign cigarettes accounted for 18.6% of the sample in 2005 and 15.5% in 2006. This study determined that the contraband market for tobacco products was modest, and the main problem was cross-border shopping. In the United States, Merriman<sup>35</sup> collected littered cigarette packs around Chicago to assess the extent of avoidance and evasion of the local Cook County and Chicago cigarette taxes. He found that about 75% of packs collected in Chicago did not have the Chicago tax stamp. This figure, however, may overestimate the level of tax avoidance and evasion, considering the large number of commuters to Chicago from other jurisdictions, as well as the large number of tourists in the city who may discard packs purchased where they reside. Stoklosa and Ross<sup>36</sup> estimated that 15.6% of cigarette packs gathered from 30 districts in Warsaw, Poland, had been smuggled because they had foreign tax stamps.

Fix and colleagues<sup>37</sup> conducted a pack return survey in the United States using the 2009 and 2010 ITC survey samples. Eligible participants were invited to mail back an unopened pack of their usual brand of cigarettes and were paid US\$ 25 if they did. Tax stamps were assessed to determine whether the returned pack was taxed in the respondents' state of residence. About one in five (20% in 2009 and 21% in 2010) packs did not have the appropriate tax stamp.

## Determinants of Tax Avoidance and Evasion

Price and tax differences between countries or jurisdictions may create financial incentives to avoid or evade taxes. However, the enabling environment also determines the level of profitability of this tax evasion or avoidance, which reflects the probability of being caught and associated costs. Yürekli and Sayginsoy<sup>31</sup> argue that relative price disparities increase the financial incentive to smuggle, but smuggling is also influenced by the willingness to attempt to smuggle and the ability of the government to interdict smuggling.<sup>38</sup> Willingness to smuggle reflects the smuggler's *perceived* probability of being caught, which in turn is influenced primarily by the *actual* level of law enforcement.

## The Impact of Tax and Price Differences

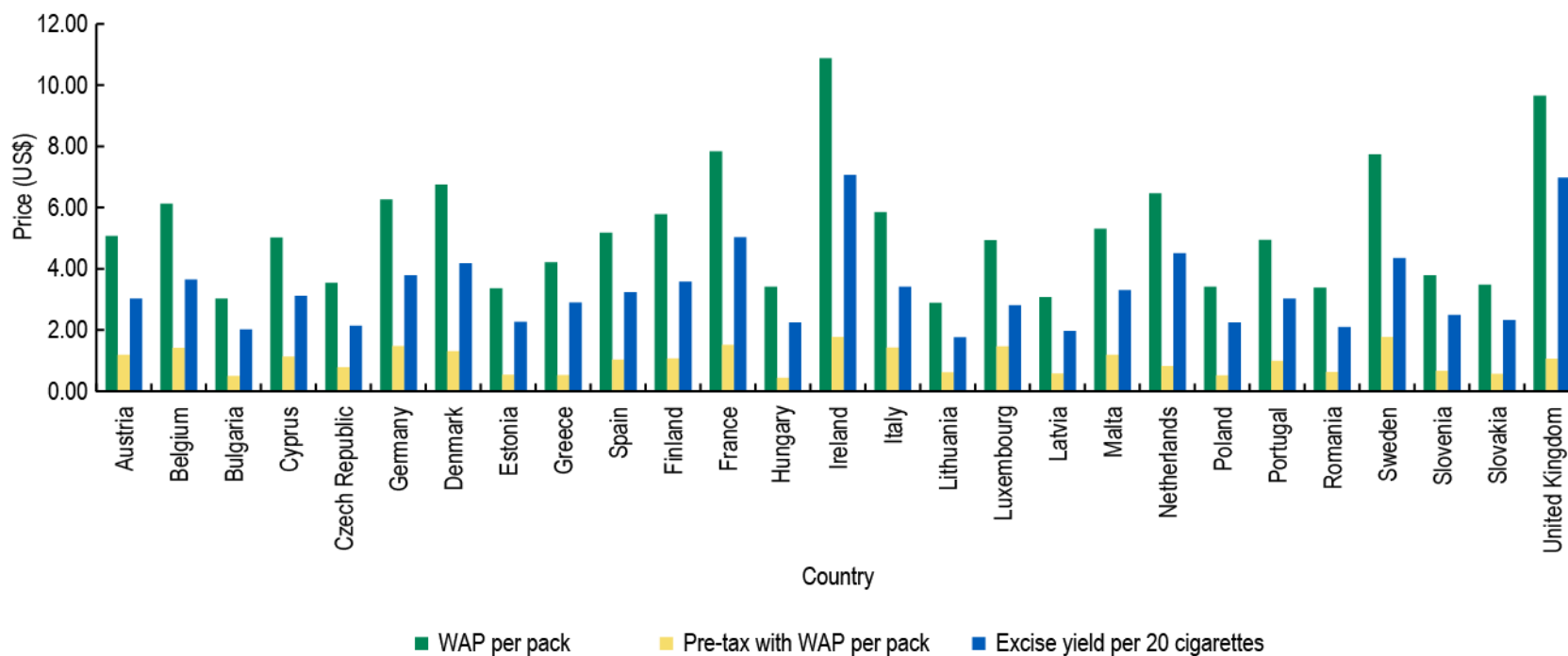
The impact of tax and price differences on type and level of illicit trade activities has been examined extensively by economists. For example, price differences between adjacent geographical areas motivate bootlegging and legal cross-border shopping, according to studies conducted in the United States,<sup>22,25,29,39-41</sup> multiple European countries,<sup>8,42</sup> Estonia,<sup>43</sup> the United Kingdom,<sup>44,45</sup> France,<sup>34</sup> and many other countries.

Studies in the United States indicate that the large tax differentials between neighboring high-tax to low-tax jurisdictions provide incentives for tax avoidance and bootlegging, while greater distance from low-tax jurisdictions reduces the incentive. Baltagi and Levin,<sup>39</sup> for example, found that an increase in price in a higher tax neighboring state increased taxed sales in a low-tax state, with the effect larger in the long term than in the short term. Similarly, Yürekli and Zhang<sup>29</sup> found that revenue loss from short-distance cross-border sales is sensitive to differences in excise tax rates between neighboring states. DeCicca and colleagues<sup>41</sup> found that a 1% price increase in a state will increase the likelihood of a smoker purchasing cigarettes in a neighboring state by 3.1%.

Cross-border shopping has been a concern in many European countries because of fairly substantial differences in retail prices and the relative ease of transit between countries. Prices vary between countries because of differing taxation (e.g., differences in tax structures and the tax share in price) but also because of industry pricing strategies and exchange rate fluctuations. Pre-tax price differentials may also influence levels of tax avoidance and tax evasion.<sup>4</sup> In spite of the harmonization of tobacco tax structure in the EU, final prices still vary among member countries (Figure 14.6).



**Figure 14.6 Taxation and Weighted Average Price on a Pack of 20 Cigarettes, in U.S. Dollars, in Selected EU Countries, 2012-2013**



Note: WAP = weighted average price. Price per pack shown in 2012 U.S. dollars.  
 Sources: European Commission 2012-2013<sup>72</sup> and World Health Organization 2013.<sup>50</sup>

Several studies have examined bootlegging and cross-border shopping in the EU. For example, assessing frequency-of-travel data and other data from 18 European countries between 1989 and 1995, Merriman and colleagues<sup>8</sup> found that a cigarette tax increase significantly reduced domestic tax-paid sales due to both a reduction in cigarette consumption and an increase in cross-border purchases and bootlegging. Similarly, Taal and colleagues<sup>43</sup> analyzed tax avoidance and evasion in Estonia between 1995 and 1999 and found that illegal purchases of cigarettes—for example, cigarettes on which Estonian taxes were not paid—were made primarily by tourists and foreign visitors to Estonia, while half of legal cigarette purchases in Estonia were made by visitors, especially by Finnish and Swedish tourists. This is consistent with reports from Finnish authorities indicating that legal cross-border cigarette shopping by Finnish travelers amounted to 12% of total national sales in 1996.<sup>46</sup> Likewise, tobacco taxes increased substantially in France in 2003 and 2004, followed by a rise in cross-border purchases of tobacco products, both legal and illegal.<sup>34</sup>

In contrast, the evidence is mixed when examining illicit activities, particularly larger scale organized smuggling. This is important because the volume of bootlegged tobacco products is much smaller than the volume of large-scale smuggling,<sup>47</sup> hence the impact of large-scale smuggling on regional economies and public health is much greater.

For example, Joossens and Raw<sup>48</sup> report that less cigarette smuggling took place in Northern European countries with relatively higher incomes, taxes, and prices than in Southern European countries with relatively lower incomes, taxes, and prices. Merriman and colleagues<sup>8</sup> reported no significant association between experts' estimates of large-scale smuggling from 33 European countries and average cigarette prices. Joossens and colleagues<sup>10</sup> examined the worldwide illicit market using 2007 data from 84 countries, and reported that the illicit market share was much higher in low-income countries with the lowest cigarette prices, compared to high-income countries with higher prices (Figure 14.7). Conversely, Ramos<sup>49</sup> examined the illicit cigarette market in Argentina, Brazil, Paraguay, and Uruguay between 2007 and 2008 and concluded that price was the main determinant of the illicit market because of the large number of price-sensitive low-income smokers in this region.

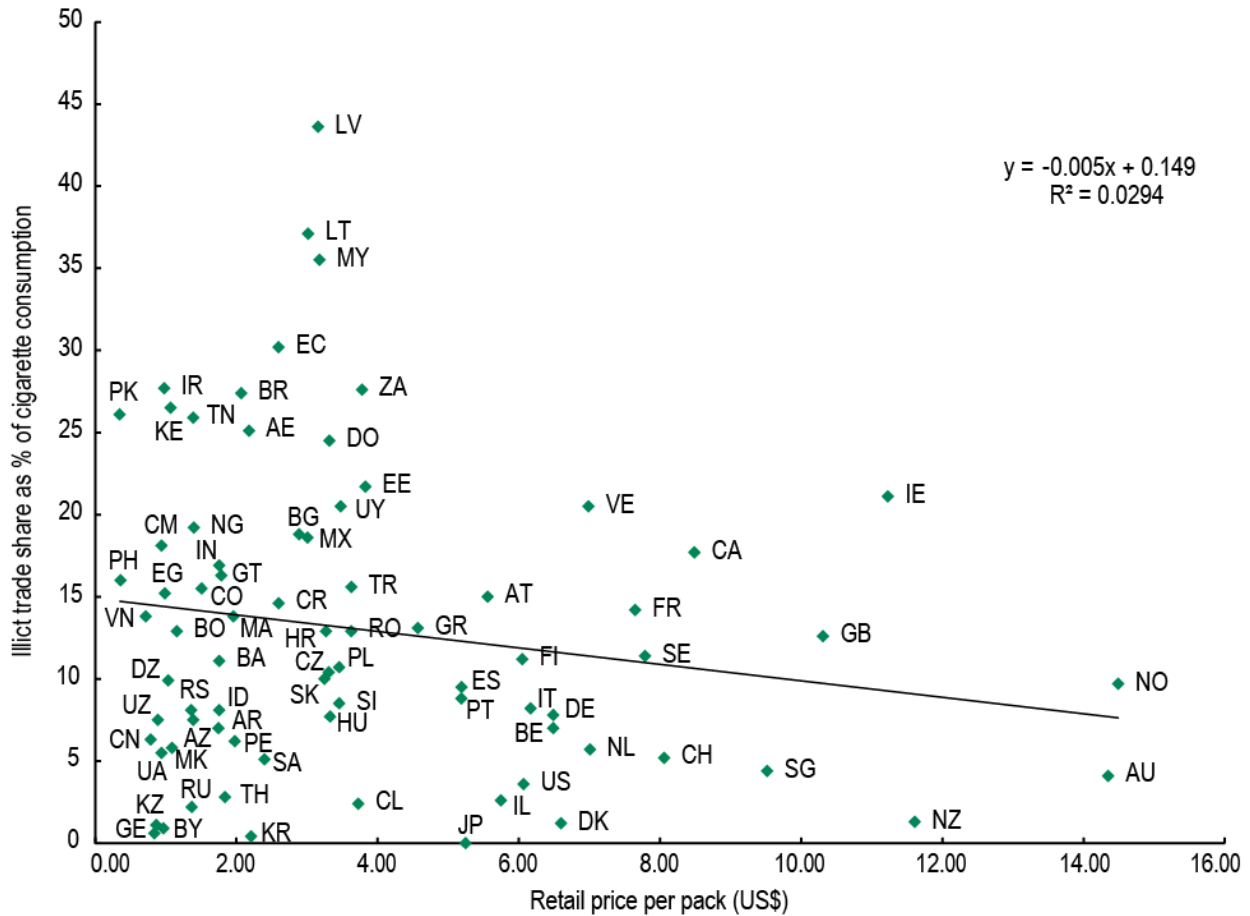
**Figure 14.7 Illicit Trade Versus Retail Price for the Most Popular Brands, by Country Income Group, 2007**


Source: Joossens et al. 2009.<sup>10</sup>

The lack of a strong positive association between average cigarette prices and share of the market accounted for by illicit cigarettes is further illustrated in Figure 14.8.<sup>50,51</sup> This figure shows country-level data from WHO on the retail price of the most popular cigarette brand along with Euromonitor International estimates of illicit cigarette market share for 78 countries. In contrast to the hypothesis that higher cigarette taxes and prices will lead to increased illicit trade, the data suggest the opposite, with illicit market share generally falling as cigarette prices rise.

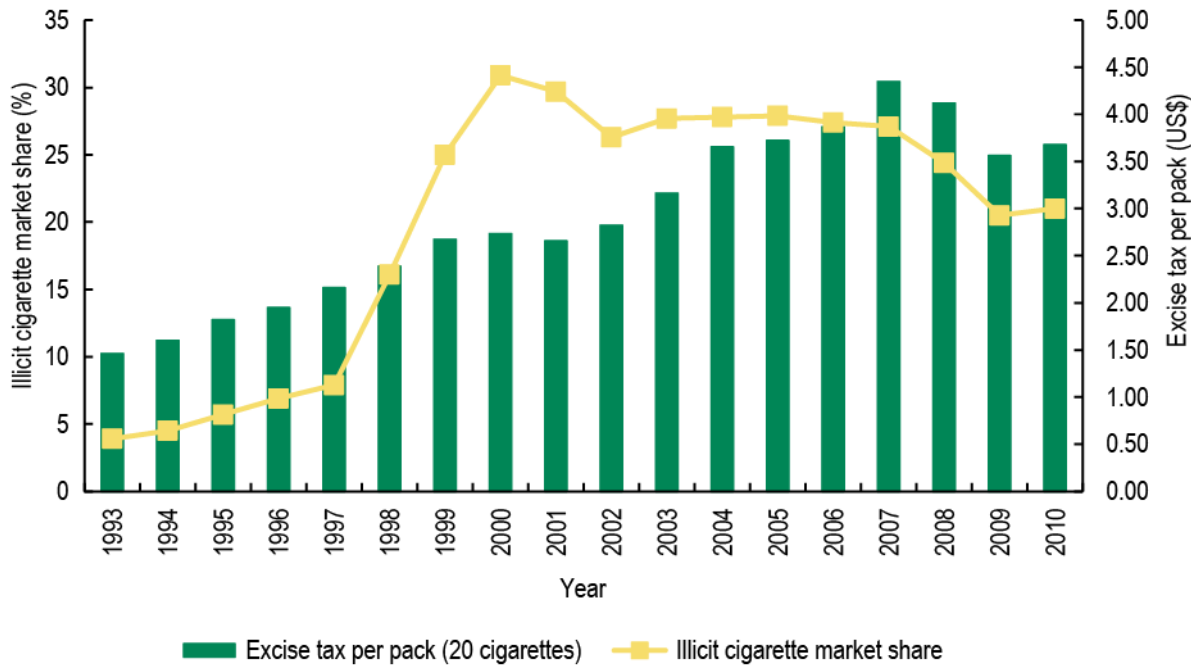
Cigarette taxes and estimated illicit cigarette trade levels in the United Kingdom from 1993 through 2010 are shown in Figure 14.9. Cigarette taxes and the market share for illicit cigarettes both rose in the 1990s, but between 2000 and 2010 cigarette taxes continued to rise, while the share of illicit cigarettes fell from 30.9% in 2000 to 21.0% in 2010<sup>52</sup> in part because of significant efforts by the government of the United Kingdom to curb illicit tobacco trade.<sup>53</sup> These opposing trends have contributed to both reduced smoking prevalence and increased tobacco tax revenues in the United Kingdom.<sup>54</sup>

Figure 14.8 Share of Illicit Trade Versus Retail Prices of the Most Popular Brands, by Country, 2012



Country Abbreviations: AE = United Arab Emirates, AR = Argentina, AT = Austria, AU = Australia, AZ = Azerbaijan, BA = Bosnia and Herzegovina, BE = Belgium, BG = Bulgaria, BO = Bolivia, BR = Brazil, BY = Belarus, CA = Canada, CH = Switzerland, CL = Chile, CM = Cameroon, CN = China, CO = Colombia, CR = Costa Rica, CZ = Czech Republic, DE = Germany, DK = Denmark, DO = Dominican Republic, DZ = Algeria, EC = Ecuador, EE = Estonia, EG = Egypt, ES = Spain, FI = Finland, FR = France, GB = United Kingdom, GE = Georgia, GR = Greece, GT = Guatemala, HR = Croatia, HU = Hungary, ID = Indonesia, IE = Ireland, IL = Israel, IN = India, IR = Iran, IT = Italy, JP = Japan, KE = Kenya, KR = Republic of Korea, KZ = Kazakhstan, LT = Lithuania, LV = Latvia, MA = Morocco, MK = Macedonia, MX = Mexico, MY = Malaysia, NG = Nigeria, NL = Netherlands, NO = Norway, NZ = New Zealand, PE = Peru, PH = Philippines, PK = Pakistan, PL = Poland, PT = Portugal, RO = Romania, RS = Serbia, RU = Russian Federation, SA = Saudi Arabia, SE = Sweden, SG = Singapore, SI = Slovenia, SK = Slovakia, TH = Thailand, TN = Tunisia, TR = Turkey, UA = Ukraine, US = United States, UY = Uruguay, UZ = Uzbekistan, VE = Venezuela, VN = Viet Nam, ZA = South Africa.

Sources: World Health Organization 2013<sup>50</sup> and Euromonitor International 2012.<sup>51</sup>

**Figure 14.9 Cigarette Taxes and Estimated Illicit Cigarette Market Share, United Kingdom, 1993–2010**


Note: Prices were converted to U.S. dollars.

Sources: Her Majesty's Customs and Excise 2015<sup>107</sup> and ERC Group 2011.<sup>52</sup>

### Weak Governance

Large-scale illicit trade activities, including illicit trade in tobacco products, are generally conducted by criminal networks, which operate more easily in countries where governance is weak, corruption is high, and the control of authorities is lax.<sup>55,56</sup> Illicit trade in cigarettes often co-exists with illicit trade in other products in environments where smuggling is tolerated by governments and the citizenry.<sup>6</sup> Besides organized criminal networks, terrorist organizations have also engaged in cigarette smuggling. A report from the U.S. Congressional Research Service notes that “the production, smuggling, and sale of tobacco products, including genuine and counterfeit cigarettes, is a lucrative form of financing for organized crime as well as terrorist groups”<sup>57,p.11</sup> and “cigarette smuggling schemes as a means for financing terrorists have been discovered in a range of countries and regions, including the United States, Europe, Turkey, the Middle East and North Africa, and Iraq.”<sup>57,p.12</sup>

Titeca and colleagues<sup>58</sup> examined cigarette smuggling in central and eastern Africa using qualitative field research and secondary data from nongovernmental organizations, academic literature, multilateral organizations, and the press. These authors identified a number of reasons for smuggling in this region, including weak state capacity to monitor borders and high levels of corruption (specifically, corrupt government officials who allowed large-scale smugglers to operate). Significantly, rebel groups operating in the eastern part of the Democratic Republic of Congo engage in cigarette smuggling to finance their activities. This study concludes that these factors explain the high levels of smuggling, despite the low cigarette prices in the region.

Hajdinjak<sup>59</sup> analyzed the connection between armed conflicts following the dissolution of the former Yugoslavia and the growth of trans-border crime in the region, including smuggling and corruption. The author argues that political elites, security forces, and organized crime cooperated with one another to

foster the development of a regional smuggling network, which extended to neighboring countries including Albania, Bulgaria, Macedonia, and Romania. Although smuggling channels were initially focused on arms and oil, they expanded to include consumer goods, including cigarettes. According to this study, “the region became one of the most important links in the European cigarette smuggling business.”<sup>59,p.70</sup>

Economists have examined the impact of governance or corruption on the size of illicit trade. Merriman and colleagues<sup>8</sup> studied the relationship between weak governance and illicit trade using data from 33 countries. As their measure of governance, the authors used Transparency International’s Corruption Perceptions Index (1998),<sup>60</sup> which measures perceptions of the degree of corruption based on surveys of business people, risk analysts, and the general public. Merriman and colleagues found a significant association between corruption and illicit tobacco trade, with more corrupt countries having higher levels of illicit trade, and less corrupt countries having lower levels. Yürekli and Sayginsoy<sup>31</sup> used 1999 data from 110 countries to examine the relationship between average retail prices of cigarettes and anti-smuggling law enforcement, using the World Bank’s control of corruption indicator as a proxy for enforcement of anti-smuggling laws. Their simulation study found that “increasing cigarette taxes and improving anti-smuggling law-enforcement would significantly increase government revenues while decreasing global cigarette consumption and smuggling activities.”<sup>31,p.559</sup>

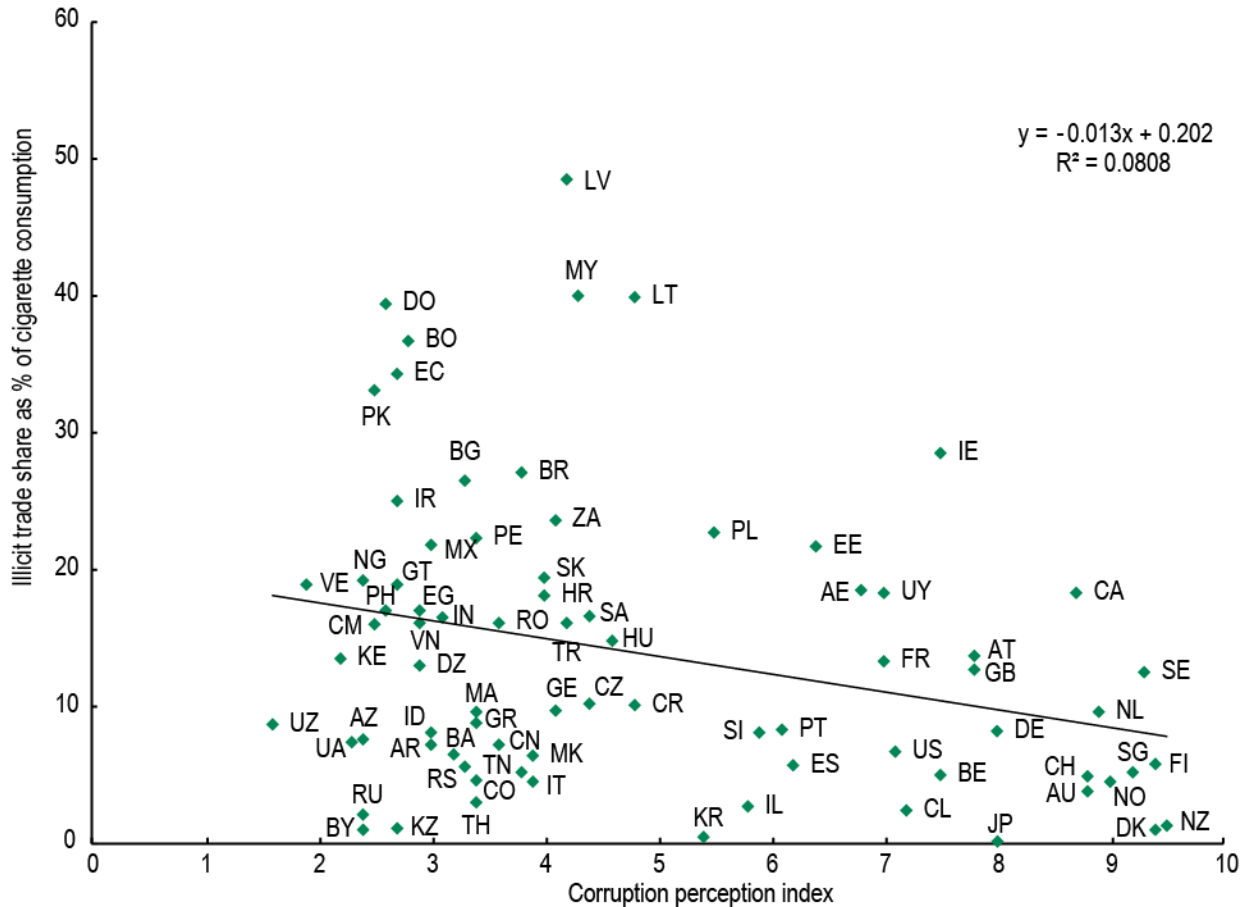
Figure 14.10 illustrates the association between corruption and illicit trade using the Transparency International Corruption Perception Index (2011)<sup>61</sup> and Euromonitor International’s estimated market share for illicit cigarettes in 2011.<sup>51</sup> Consistent with evidence from the studies described above, illicit trade is higher in more corrupt countries, and lower in less corrupt countries.

### Tax and Customs Administration and Control of Illicit Trade

Illicit tobacco trade circumvents many kinds of laws in many countries, including internal laws, criminal laws, and tobacco control laws, which are enforced by customs administrations, the military, and local or federal government agencies. Dealing with illicit trade is the responsibility of customs and tax administrators in many countries, but research has shown that many factors hamper administrators’ ability to effectively tackle illicit trade.<sup>6</sup> Mechanisms for improving agencies’ effectiveness in combating illicit trade include appropriate human resources measures and technologies, supportive judicial systems, and increased collaboration and coordination between customs and enforcement agencies within and between countries.<sup>6,7</sup>

Many countries have extensive sea and land borders that are unsupervised for various reasons. Political unrest, geographic conditions, and the presence of traditional trade routes along borders increase the risks and costs to customs agencies of monitoring these areas. Traditional trade routes that cut across formal borders can be found in many parts of the world; given their vast number, it may not be economically viable to control traditional routes, especially when activities across them involve small amounts of trade.

Figure 14.10 Share of Illicit Trade Versus Corruption, by Country, 2011



**Country Abbreviations:** AE = United Arab Emirates, AR = Argentina, AT = Austria, AU = Australia, AZ = Azerbaijan, BE = Belgium, BG = Bulgaria, BO = Bolivia, BQ = Bosnia and Herzegovina, BR = Brazil, BY = Belarus, CA = Canada, CH = Switzerland, CL = Chile, CM = Cameroon, CN = China, CO = Colombia, CR = Costa Rica, CZ = Czech Republic, DE = Germany, DK = Denmark, DO = Dominican Republic, DZ = Algeria, EC = Ecuador, EE = Estonia, EG = Egypt, ES = Spain, FI = Finland, FR = France, GB = United Kingdom, GE = Georgia, GR = Greece, GT = Guatemala, HR = Croatia, HU = Hungary, ID = Indonesia, IE = Ireland, IL = Israel, IN = India, IR = Iran, IT = Italy, JP = Japan, KE = Kenya, KR = Republic of Korea, KZ = Kazakhstan, LT = Lithuania, LV = Latvia, MA = Morocco, MO = Macedonia, MX = Mexico, MY = Malaysia, NG = Nigeria, NL = Netherlands, NO = Norway, NZ = New Zealand, PE = Peru, PH = Philippines, PK = Pakistan, PL = Poland, PT = Portugal, RO = Romania, RS = Serbia, RU = Russian Federation, SA = Saudi Arabia, SE = Sweden, SG = Singapore, SI = Slovenia, TJ = Thailand, TN = Tunisia, TR = Turkey, UA = Ukraine, US = United States, UY = Uruguay, UZ = Uzbekistan, VE = Venezuela, VN = Viet Nam, ZA = South Africa.

**Note:** Lower scores on the corruption perception index indicate higher levels of corruption.

**Sources:** Euromonitor International 2011<sup>51</sup> and Transparency International 2011.<sup>51</sup>

Investments in technology play an increasingly important role in controlling illegal trade in tobacco products. X-ray scanners have been found highly effective in detecting smuggled goods,<sup>62</sup> but despite the effectiveness of these devices, customs agencies may be unable to scan all cargo entering their countries. Because of heavy traffic at borders, scanners may only be used on cargo deemed suspicious, based on information the customs agency receives or identifies from its own databases. Therefore, investments in technology require support from intelligence networks and coordination and communication within customs. Additionally, close collaboration between customs and enforcement agencies within countries as well as between different countries helps reduce illicit cigarette trade.<sup>6,7</sup> Such collaborations are, however, relatively rare.

Examples of successful collaboration to reduce illicit trade can be seen in the EU. A number of EU countries worked together to reduce smuggling from Andorra, an independent country located between Spain and France, in the 1990s. Authorities in Spain, France, Britain, Ireland, and Andorra, as well as the European Anti-Fraud Office (OLAF) collaborated to seal the Andorran border, deploying civil guard brigades in the valleys and hills to make smuggling more difficult. Political pressure was applied to the Andorran government to enact new legislation making it illegal to smuggle tobacco into neighboring countries.<sup>6,63</sup> These measures reduced the supply of cigarettes smuggled from Andorra.

### *National Efforts to Curb Illicit Cigarette Markets*

Countries have dealt with the illicit trade in cigarettes in different ways. Some try to reduce the size of the illicit cigarette market by reducing tobacco taxes or avoiding raising them. Others have increased taxes and at the same time have taken more aggressive actions to curb illicit trade. As will be discussed later in this chapter, litigation has also been employed by countries to curb smuggling.

The CDC has concluded that:

Governments that have adopted and implemented some combination of enhanced coordination, enforcement, and penalties; track-and-trace systems; licensing; high-tech tax stamps; tribal tobacco sales policies; public education efforts; and tax harmonization have been successful in curbing illicit tobacco trade. The more comprehensive and coordinated approaches have been more effective in addressing this problem. A collaborative, comprehensive approach at the federal, state, local, and tribal levels could similarly reduce the U.S. illicit tobacco trade problem and strengthen existing and future comprehensive tobacco prevention and control work.<sup>7,p.6</sup>

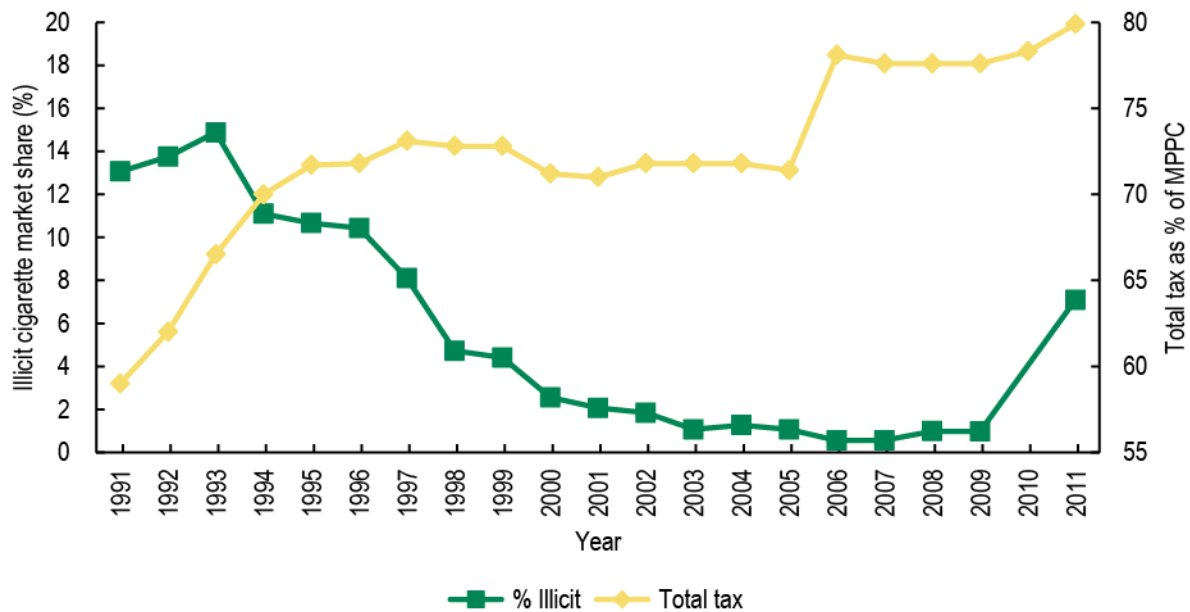
In Canada, cigarette smuggling accelerated after cigarette taxes were increased by 500% between 1982 and 1992.<sup>64</sup> The high taxes resulted in considerably higher cigarette prices in Canada than in the United States.<sup>65</sup> Canadian cigarettes were exported to the United States and taken back into Canada illegally via Native American reservations located on the Canadian/U.S. border.<sup>66</sup> To address their smuggling problem, in 1994 the Canadian government reduced the federal excise tax dramatically,<sup>64</sup> which resulted in a reduction in cigarette tax revenues and an increase in smoking rates among both youth and adults.<sup>12,67</sup> However, after allegations that tobacco companies were complicit in the smuggling of the early 1990s, the government again increased federal excise taxes, and this tax increase plus higher prices led to reductions in smoking and increases in federal tax revenues.<sup>68-70</sup> Canada also negotiated settlements with the tobacco industry to curb smuggling, and put in place a contraband tobacco enforcement strategy which included coordination between Canadian and U.S. law enforcement agencies.<sup>6</sup>

Sweden took a similar path. In 1996 Sweden implemented the EU tax system, which is a mixture of specific and *ad valorem* rates, and the Swedish government increased taxes twice in 1997, raising the excise tax from 72.1% to 75.6% of retail price. However, in 1998, because of perceptions of increased smuggling, excise taxes were reduced to 70.8% of retail prices, reducing excise tax revenues while increasing tax-paid cigarette sales.<sup>52,63</sup> A steady rise in cigarette consumption over the next few years proved difficult to reverse until tax rates were increased. As in Canada, when tax rates were increased again, cigarette tax revenues increased despite falling cigarette sales.<sup>71</sup>



Other countries have committed to curbing smuggling and at the same time raising cigarette taxes and prices, resulting in higher tax revenues and reduced smoking. Spain is one example. Despite having relatively low taxes on cigarettes, Spain faced substantial cigarette smuggling in the mid-1990s, with the illicit cigarette market share reaching 14.9% in 1993<sup>52</sup> (Figure 14.11). In addition to a number of tax increases, Spain introduced strong measures against illicit trade, such as reducing the transporting of illicit cigarettes into the country at the “container level” through intelligence, customs activity, improved technology, and national and European cooperation, which helped to strictly control illicit trade in Andorra and Gibraltar.<sup>47</sup> As a result, the illicit market shrank to less than 1% of the total market by 2006, while the total tax on the most popular price category (MPPC) rose from 59% of price in 1991 to 78% in 2006<sup>52</sup> (Figure 14.11). Thus Spain stands as a powerful counter-example to two myths about taxation and illicit trade: It had very high rates of illicit trade when its taxes were low, and it successfully reduced illicit trade as taxes increased.

**Figure 14.11 Illicit Cigarette Market Share and Percentage of Most Popular Price Category Accounted for by Taxes, Spain, 1991–2011**



Note: Percentage of contraband data is not available for 2010. MPPC = most popular price category of cigarettes.

Source: ERC Group 2011.<sup>52</sup>

Italy’s experience in countering cigarette smuggling was similar to Spain’s. The market share for illicit cigarettes in Italy was estimated at 13% in 1992<sup>52</sup> when the total tax share of the MPPC was 72%<sup>72</sup> (Figure 14.12). To combat smuggling, the Italian government implemented several measures, including introducing barcodes on cigarette packs to help detect illicit cigarettes; adopting legislation treating tobacco smuggling like other serious crimes; and increased control over the Italian coast and additional surveillance by enforcement authorities, which were given increased powers and logistic and technical support.<sup>73</sup> The Italian government also strengthened its cooperation with the EU. These efforts paved the way for law enforcement and judicial authorities to tackle the issue of tobacco smuggling efficiently and effectively. By 2010, both specific and *ad valorem* excise taxes increased such that the total tax share in the retail price of the most popular price category increased to 75.2%, and at the same time, the share of illicit cigarettes on the market declined to 3.2%.<sup>52</sup>

**Figure 14.12 Illicit Cigarette Market Share and Percentage of Most Popular Price Category Accounted for by Taxes, Italy, 1991–2010**



Note: MPPC = most popular price category of cigarettes.

Sources: European Commission 1991–2002<sup>72</sup> and ERC Group 2011.<sup>52</sup>

The government of Turkey increased taxes on all tobacco products, which resulted in significantly increased tax revenues despite illicit market penetration. Between 2005 and 2011 the Turkish government increased the specific excise floor by 141.7% and raised the *ad valorem* rate from 58% to 65% of the retail price, nearly tripling the average price of cigarettes.<sup>74</sup> During that time, cigarette tax revenues rose by 124%<sup>74</sup> while the illicit cigarette market share fluctuated between 14.3% and 17.5%.<sup>51</sup>

Brazil successfully reduced tax evasion from illegal manufacturing through implementation of a combination of policies (control and monitoring system, licensing of manufacturers, and enforcement).<sup>4</sup> During the mid-1990s, Brazil struggled with the illicit activities of domestic manufacturers who exported cigarettes to neighboring countries, especially Paraguay; these exported cigarettes then re-entered Brazil via illegal routes as contraband. To combat this practice, the Brazilian government levied a 150% tax on cigarettes exported to other countries in Latin America and the Caribbean.<sup>75</sup> In response, domestic companies changed their tactics to under-reporting production and distributing untaxed cigarettes in the local market. This led Brazil to adopt state-of-the-art monitoring technology for domestic producers, coupled with licensing of all manufacturers and applying a digital tax stamp on cigarette packs. This new system led to the closure of several non-compliant manufacturers and near elimination of Brazil's problem of illegal manufacturing.<sup>4</sup>

### Duty-Free Shops and Free Trade Zones

Some evidence indicates that the availability of duty-free sales of tobacco products has facilitated illicit trade in tobacco products in many countries, with cigarettes destined for duty-free shops diverted into the black market. This evidence comes from previously internal tobacco industry documents and information provided by customs and tax officials.<sup>2,76,77</sup> In Romania, for example, customs officials and border police state that duty-free shops are the source of much of the cigarettes smuggled into the

country, an opinion also held by police in other countries, including Bulgaria.<sup>78</sup> Duty-free tobacco product sales have since been banned in Romania.<sup>79</sup> Bulgaria reduced the duty-free import limit for travelers from non-EU countries (except at airports) from 200 to 40 cigarettes in order to combat illicit trade.<sup>80</sup>

Many governments use tax-free zones (TFZs) or free trade zones (FTZs) to promote trade, but these zones also facilitate illicit trade in tobacco products.<sup>4</sup> They provide a free-trading environment; only a minimal level of regulation governs the companies approved to operate in these zones. Goods that are stored in TFZs are exempted from taxes, including import tariffs, value-added taxes, and excises, where applicable. Goods are subject to tax at their final destination if sold out of the country, and are subject to domestic taxes if sold within the country.<sup>81,82</sup>

### The Tobacco Industry's Involvement in Illicit Trade

Evidence for direct or indirect involvement of the cigarette industry in illicit trade comes from previously internal tobacco industry documents and litigation against the companies, as well as from investigative journalism, government investigations, and other sources.<sup>6,83</sup> Research shows that organized illicit cigarette trade has sometimes occurred with the knowledge and/or participation of tobacco companies themselves and in some cases would not have occurred without their compliance.<sup>6,83</sup>

Based on studies of previously internal tobacco industry documents and analysis of legal investigations and agreements, the NRC and the IOM concluded that “tobacco companies at a global level have promoted and facilitated the smuggling of legally manufactured cigarettes”<sup>6,p.62</sup> and that “in the recent past the tobacco industry was complicit in the illicit trade in Asia, Eastern Europe and the former Soviet Union, Canada, Latin America, and the European Union.”<sup>6,p.62</sup> Further, the NRC and the IOM stated that “the decline in the illicit market following litigation (or threats of litigation) underscores the industry’s role in facilitating the illicit trade.”<sup>6,p.63</sup> However, the NRC and the IOM reported that no evidence indicated that the tobacco industry participated in illicit trade in the United States as of 2015, although there may be lag time between illicit activity and detection.

As the NRC and the IOM and others have noted, a number of potential economic incentives could motivate tobacco companies to engage in illicit trade, including the possibility of expanding their brands to new markets, gaining a competitive advantage over rival international tobacco companies, and deterring governments from increasing taxes.<sup>6</sup> Additionally, smuggling helps tobacco companies sell their brands in countries otherwise closed to them because of import bans or because of higher duties and taxes on legal imports, which make the international companies’ brands more expensive than domestic brands. By helping to keep the average market price low, illicit trade also increases total sales. Research indicates that the main economic motives of international tobacco manufacturers are both to increase their profits in the short run and to gain long-term benefits by influencing countries’ tax policies. For example, tobacco companies have used potential or ongoing illicit trade to persuade governments to reduce cigarette tax rates or duty fees, or not to increase them.<sup>83</sup>

Another study that linked tobacco companies to smuggling was the work of Lee and Collin,<sup>84</sup> who reported that previously internal British American Tobacco (BAT) documents from the early 1990s to 2003 revealed that contraband tobacco was both highly profitable and integral to BAT operations in the People’s Republic of China over the past two decades. Although BAT initially used smuggling as a means of gaining access to the highly restricted Chinese market, the company continued the practice in

order to build market presence. The authors of this study noted that “public statements by BAT have portrayed smuggling as ‘inimical to our long-term business interests,’ [but] internal documents illustrate how the company’s strategy in China ... centred on the supply, oversight, and control of the illicit trade.”<sup>84,p.1086</sup>

Similarly, Collin and colleagues<sup>76</sup> produced a detailed case study of BAT’s involvement in smuggling across Asia, using previously internal company documents that show that BAT’s corporate strategy for Asia relied heavily on illicit trade, which produced large profits, gave the company access to closed markets, and created pressures for opening markets. The documents also show that BAT saw its strategic challenge as the need to “maintain both careful management of illicit trade and sufficient separation from it to ensure deniability.”<sup>76,p.ii108</sup> Gilmore and McKee<sup>85</sup> also used previously internal BAT documents to identify the company’s initial strategies to enter the Soviet Union following its collapse in 1991. They found that BAT used a staged approach to market penetration, and the company’s tactics included large-scale involvement in smuggling to establish imports.

Skafida and colleagues<sup>86</sup> focused on the role of tobacco industry lobbying and smuggling in Bulgaria. These authors reported that previously internal tobacco industry documents, supplemented by other materials, suggest that transnational tobacco companies were involved in cigarette smuggling to and through Bulgaria for decades beginning as early as the mid-1970s. They found that the companies exaggerated the extent of illicit trade and worked to convince authorities that tax increases lead to cigarette smuggling.

According to LeGresley and colleagues,<sup>87</sup> previously internal tobacco industry documents from BAT show that the company engaged in cigarette smuggling to gain access to emerging markets in Africa. Specifically, BAT used illicit trade to “gain leverage in negotiating with governments for tax concessions, compete with other transnational tobacco companies, circumvent local import restrictions and unstable political and economic conditions, and gain a market presence.”<sup>87,p.339</sup> Nakkash and Lee<sup>88</sup> examined BAT’s involvement in cigarette smuggling in Lebanon, a country strategically located in the Middle East, and found evidence in previously internal company documents that smuggling was an important component of BAT’s market entry strategy in Lebanon and neighboring countries.

The involvement of major multinational tobacco companies in illicit trade has been the subject of litigation in a number of countries, including Canada, Colombia, and Ecuador, as well as the EU.<sup>83</sup> In these cases, multinational tobacco companies were accused of supplying illicit cigarettes or of being aware of the illegal destination of their products.<sup>2,83</sup> Since 1997, three BAT employees—two managers from Canada and one executive from China, Hong Kong Special Administrative Region (SAR)—have either pled guilty to or been convicted of charges relating to tobacco smuggling.<sup>89</sup> In a Canadian case in 2008, Imperial Tobacco Canada and Rothmans, Benson & Hedges pled guilty to helping people sell or possess illegal cigarettes during the 1990s. The defendants paid a total of 1.15 billion Canadian dollars (US\$ 1.12 billion) in fines and settlements to the federal and provincial governments.<sup>90</sup>

In 2000, the European Commission took several tobacco companies to court, accusing them of involvement in cigarette smuggling among other things.<sup>2</sup> In 2001, ten European countries, led by Italy, joined the litigation. The resulting settlements required Philip Morris International to make payments that were initially estimated to be up to US\$ 1.25 billion over the course of 12 years.<sup>91</sup> Similar settlements were subsequently reached with Japan Tobacco International (2007), BAT (2010), and Imperial Tobacco (2010).<sup>92</sup>

## Illicit Trade Routes

Trade routes for illicit cigarettes are often convoluted and take advantage of the factors described above: FTZs, weak controls over distribution of in-transit products, ineffective customs authorities, and corruption. These trade routes are constantly changing in response to efforts to curb illicit trade.

Many studies have focused on trade routes for illicit cigarettes in various world regions. Joossens and Raw<sup>48</sup> described trade routes for cigarette smuggling in Europe, identifying a major trade route into Eastern Europe and a major route into the former Soviet Union, and noting that smuggling in the region primarily involves well-known international brands. LeGresley and colleagues<sup>87</sup> analyzed previously internal BAT documents related to Africa and found that “distributors offered BAT detailed knowledge of major entry points to the African continent,”<sup>87,p.341</sup> and that these appeared to be historically successful entry points for contraband. The authors concluded that “contraband tobacco trade is exceedingly dynamic in terms of supply routes and modes of transport. It is not a consequence of price differentials.”<sup>87,p.343</sup>

Nakkash and Lee<sup>88</sup> examined smuggling in Lebanon. These authors learned from previously internal BAT documents that, in addition to being a target market for transnational tobacco companies, Lebanon is a key point for cigarette smuggling in the Middle East and Africa. One previously internal BAT document described Lebanon, Cyprus, Syria, and Jordan as “an intertwined group of markets with very fluid and changing channels of distribution.”<sup>88,p.327</sup> Shafey and colleagues<sup>75</sup> investigated cigarette smuggling in Brazil and concluded that the main source for contraband cigarettes coming into that country is Paraguay. Ramos<sup>49</sup> examined illicit trade in tobacco in the four Southern Common Market (Mercosur) countries (Argentina, Brazil, Paraguay, and Uruguay) and delineated the trade routes emanating from Panama, the largest illegal cigarette supplier in the region. Ramos concluded that illegal trade in tobacco in the Mercosur countries primarily involves low-priced, little-known brands, and that cultural and governmental acceptance of smuggling contributes to the region’s problem. This study concluded that “handling illicit merchandise is socially accepted” and that “governments may also be ambiguous in their view as to whether to intensify the fight against illegal commerce.”<sup>49,p.12</sup>

Yürekli and Sayginsoy<sup>31</sup> summarized information from various studies and sources to produce a comprehensive global diagram of smuggling routes. These authors also conducted a simulation analysis to identify policy options to achieve the objectives of public health agencies and governments, concluding that “increasing cigarette taxes and improving anti-smuggling law enforcement would significantly increase government revenues while decreasing global cigarette consumption and smuggling activities” and that “if a tax increase is not accompanied by an improvement in law enforcement, then the level of global smuggling would increase, but governments would still enjoy increased tax revenues.”<sup>31,p.559</sup>

## Measures to Tackle Illicit Activities: The Illicit Trade Protocol

Article 15 of the WHO FCTC obliges Parties to control illicit tobacco trade. During the second session of the Conference of Parties (COP) to the WHO FCTC in 2007, an Intergovernmental Negotiating Body was established to draft and negotiate a protocol on illicit trade of tobacco products, which would use, build on, and complement Article 15. The Protocol to Eliminate the Illicit Trade in Tobacco Products was adopted at the fifth COP in November 2012 and was opened for signature by the Parties to the WHO FCTC on January 10, 2013.<sup>93</sup> Ratification, acceptance, approval, accession, or formal

confirmation or approval by 40 countries is required for the ITP to enter into force. Twenty-four countries have ratified the protocol as of October 2016.<sup>1</sup>

The ITP aims to eliminate all forms of illicit trade in tobacco products by using a combination of national measures and international cooperation. Among other things, the ITP recognizes that illicit trade in tobacco products:

- “is contributing to the spread of the tobacco epidemic”<sup>93,p.3</sup>
- “undermines price and tax measures designed to strengthen tobacco control and thereby increases the accessibility and affordability of tobacco products”<sup>93,p.3</sup>
- “undermines the economies of Parties and adversely affects their stability and security”<sup>93,p.4</sup>
- “generates financial profits that are used to fund transnational criminal activity, which interferes with government objectives.”<sup>93,p.4</sup>

The ITP will oblige Parties to implement national measures that would strengthen control over the supply chain, including:

- Implementing a tracking and tracing system, as defined in the next section, for all tobacco products that are manufactured in or imported into a country
- Licensing of those involved in tobacco product manufacturing or distribution as well as those involved in manufacturing or distribution of the machinery used to produce tobacco products
- Strengthening control measures in free zones and for tobacco products in international transit, and strengthening enforcement efforts and penalties for those found to have engaged in illicit trade.

The ITP also obliges cooperation among Parties. This may involve working closely with one another on investigations of illicit trade, providing mutual legal assistance and allowing extradition, and sharing information and technical assistance.<sup>93</sup> As explained in the treaty, all relevant provisions of the ITP apply to duty-free sales.

### Tracking and Tracing Regimes

An effective tracking and tracing regime would secure the distribution system and facilitate the investigation of illicit trade. *Tracking* refers to the ability of competent authorities to systematically monitor the movement of tobacco products from the place of manufacture, through the distribution chain, to the intended market of retail sale, making sure all relevant duties and taxes have been paid. *Tracing* refers to the ability of competent authorities, on the occasion of an audit or a seizure of a genuine product, to recreate the route taken by a tobacco product from the place of manufacture, through the distribution chain, to the point where the product has been diverted into illegal trade channels.<sup>94</sup> The ITP obligates each Party to establish a national and/or regional tracking and tracing system for all tobacco products manufactured in or imported into its territory, and these national systems would be part of a global tracking and tracing system.<sup>93</sup>

Turkey and Brazil were among the earliest countries to adopt high-tech tax stamps (which contain encrypted codes and information that can be read with portable scanners, making them very difficult to counterfeit) and related monitoring systems.<sup>6,95</sup> Other countries have followed, including Canada in July



2012, and the Philippines, which implemented the stamps on cigarettes in August 2014 after its 2012 sin tax reform legislation.<sup>6</sup>

In the United States, the 2009 Family Smoking Prevention and Tobacco Control Act requires the Food and Drug Administration, an agency of the U.S. Department of Health and Human Services, to issue regulations regarding the establishment and maintenance of records that will be used to track and assist in the investigation of illicit trade, smuggling, or counterfeiting of tobacco products. The statute does not set a deadline by which this regulation must be issued.<sup>96</sup> In 2005, California became the first U.S. state to adopt high-tech tax stamps<sup>6</sup>; the state's experience with the new stamp, its licensing requirements, and enforcement activities have been very positive, generating nearly US\$ 153 million in annual state tax revenues in 2008.<sup>6</sup> As of 2013, encrypted cigarette tax stamps were also in place in Massachusetts and approved for use in New Jersey and Michigan.<sup>6</sup>

### Licensing Tobacco Producers, Distributors, and Retailers

A licensing system and the exercise of due diligence by businesses are key measures for securing the tobacco products supply chain in order to prevent counterfeiting and evasion of taxes on sales; both are called for in the ITP. Secure business practices are cost-effective, sustainable tools for controlling smuggling. Approaches to securing business transactions include strict control of the production and distribution chain through licensing, improved market surveillance, and safer production processes.<sup>93</sup>

Licensing allows authorities to control the supply chain by identifying and monitoring individuals and businesses involved in the tobacco trade. Licensing of retailers may be challenging where there are a large number of street vendors selling tobacco products. Similarly, licensing growers of tobacco may be difficult in jurisdictions with many small-scale farmers. However, licensing enables enforcement officials to establish a database of tobacco-related businesses, facilitating inspections and law enforcement.<sup>93</sup> An effective licensing regime would allow a license to be revoked if the licensee is convicted of tobacco-related illegal activity.

Licensing systems are in place in most European countries, although only a few countries license participants in each stage of the chain of legal tobacco trade.<sup>97</sup> In 2007, the IOM recommended that all U.S. states license retail sales outlets that sell tobacco products<sup>98</sup>; as of 2015, only a few states and localities required licenses, and their requirements varied greatly.<sup>6</sup>

### Posting Bonds on Cigarette Shipments

To deter the diversion of cigarettes to the black market, WHO has proposed that Parties could use bonds to hold tobacco exporters accountable for their exports.<sup>99</sup> To secure the movement of cigarettes between excise regimes, an exporter would be required to put up a financial guarantee prior to export, and would forfeit the bond if the product fails to arrive at its declared destination with all its applicable taxes paid. If properly implemented, this measure would create an incentive for manufacturers to ensure legal distribution of their products because they would assume a financial risk for products that end up as contraband. The existing guarantee system used to control movements between European Community states, the Community transit guarantee,<sup>100</sup> may serve as a model for developing a global export bond regime.

### Improved Enforcement and Application of Stronger Penalties

Globalization of trade over the past few decades has been accompanied by significant increases in the volume and speed of goods moving internationally, and by changes in the roles played by customs agencies, including border security. The traditional function of customs agencies has been to collect duties on imported goods, which contributes to government revenues. Over time, the role of customs offices has evolved to include protecting society and securing the international trade supply chain, which can involve fighting organized crime and terrorism and facilitating trade in addition to revenue collection. Combating commercial fraud has always been challenging for customs administrations, primarily because the financial rewards for perpetrators who commit revenue-related fraud can be considerable, but penalties are comparatively low.<sup>6</sup>

Because of its impact on both public health and criminal activity, addressing large-scale smuggling takes a higher priority than addressing small-scale smuggling. Combating smuggling requires improved detection and enforcement and stronger penalties—all of which raise the risks for people involved in this criminal activity. To improve detection, major threats and high-risk areas must be identified and dealt with. To step up enforcement, it is important to increase the penalties for people caught smuggling, seize the assets of criminals, and impose custodial sentences for major smugglers. Stronger penalties applied to owners of premises where illegal tobacco products are sold would increase the owners' expected costs and reduce their likelihood of engaging in illicit trade. To tackle large-scale smuggling, security in port areas is much more important than along shorelines. Undervaluation, tariff misclassification, and exemption fraud are very often much more significant threats than individuals bringing small quantities through uncontrolled paths along land borders, especially in low- and middle-income countries.

### Increased Resources and Stronger Cooperation

Providing sufficient intelligence resources for customs and excise administrations, both directly and through cooperation with other agencies, will increase the frequency of contraband detection and seizures. Investment is needed in both human resources—such as increasing the number of excise officers, especially those operating at crossing points—and in capital resources, such as scanners, fixed installations at high-risk borders and inland locations, and transportable equipment for use elsewhere.

Investment in technology is critical to the fight against illegal trade in tobacco products. Many customs agencies have identified the need for technological tools, which were successfully introduced, for example, in Italy when incidents of tobacco smuggling became increasingly serious.<sup>73</sup> Other nonintrusive methods such as the use of sniffing dogs have also proven to be efficient.

At the national level, it is important to enlist the aid of other governmental agencies such as the border patrol and coast guard. Formal memoranda of understanding between these agencies help to define their respective roles in countering illicit activities in the tobacco market. Cooperation between different enforcement agencies at a national level results in efficiencies, as specific local experiences show.<sup>101,102</sup>

Successfully counteracting illicit measures at the national level requires international cooperation, which involves information sharing between countries as well as between international agencies such as Interpol, the World Customs Organization, Europol, and OLAF. The worldwide exchange of data needs improvement. Only a thorough knowledge of illicit activities makes it possible to undertake effective and efficient intelligence strategies. Effective international cooperation may also include sending



officers abroad, the value of which is illustrated by the positive results obtained by the United Kingdom's Revenue and Customs network of overseas officers and intelligence-led investigations.<sup>62</sup>

### Ending Sales of All Duty-Free Tobacco Products

A number of countries have banned or substantially restricted duty-free sales of tobacco products. For example, travelers in the EU have not been able to purchase duty-free tobacco products since 1999. All duty-free tobacco product sales were banned in Nepal in 2008 and in Romania in 2010, and Bulgaria banned these sales at its land borders with non-EU countries. Beginning in 2001, Canada levied a federal tax on tobacco products sold in duty-free shops.<sup>2</sup>

### Public Awareness Campaigns

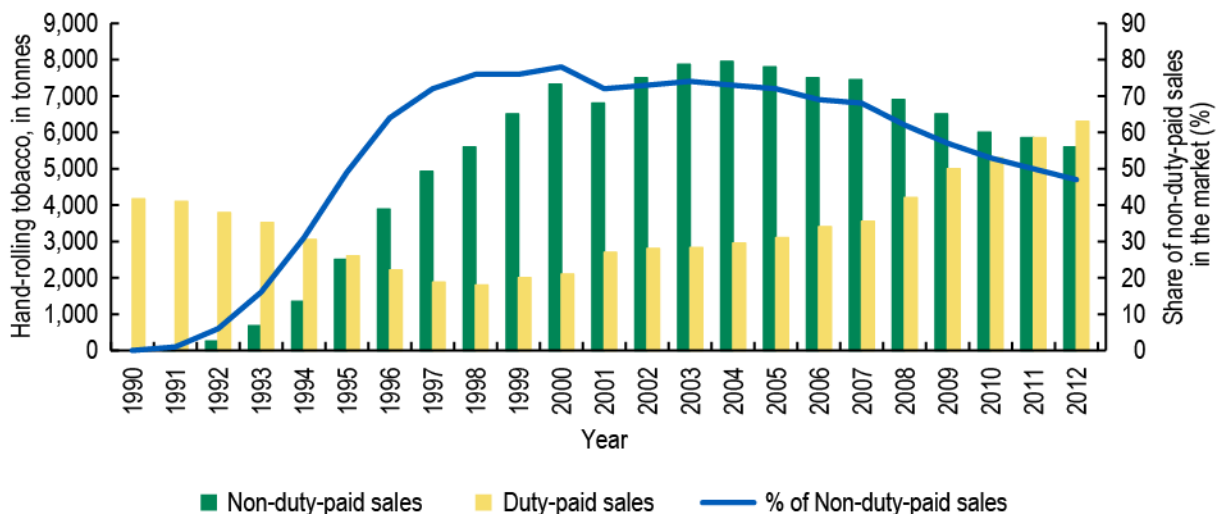
Informing the public about the criminal nature of illegal trade and production—what the law is, and the consequences of being caught in such illegal activities—is another potential strategy for curbing illicit trade. This information is particularly relevant for low-income and poorly educated populations which may be more likely to purchase smuggled cigarettes.<sup>49</sup> The NRC and the IOM documented campaigns against illicit trade in Canada; China, Hong Kong SAR; Ireland; Singapore; the United Kingdom; and the United States (Chicago).<sup>6</sup> The United Kingdom's effort, "The North of England Tackling Illicit Tobacco for Better Health Programme," was a social marketing media-based program with two key messages: one concerning the role of illicit tobacco in uptake of tobacco use by young people, and the other on the crime brought to communities by illicit trade. Research shows that this program was effective in raising awareness of the consequences of illicit tobacco trade and in increasing calls to telephone hotlines reporting on illicit tobacco. Research also indicates that this program was an important component of the comprehensive approach the United Kingdom took to successfully reduce illicit trade in the 2000s.<sup>103</sup>

### Illicit Trade in Other Tobacco Products

While most of the research and policy attention centers on illicit trade in cigarettes, evidence suggests that other tobacco products, such as smokeless and roll-your-own tobacco, are also smuggled. For example, studies show that many smokeless tobacco products in Bangladesh, Sri Lanka, and Nepal are smuggled from India.<sup>104,105</sup>

Tobacco meant to be hand-rolled into products for personal use (roll-your-own, or hand-rolling tobacco) is also smuggled in Europe, especially in the United Kingdom. According to Her Majesty's Revenue and Customs,<sup>45</sup> the United Kingdom seized 2,700 tonnes of hand-rolling tobacco between 2000 and 2011. Latest United Kingdom estimates are that smuggling of hand-rolling tobacco costs 2.2 billion pounds in lost revenue per year.<sup>45</sup> Figure 14.13 shows that the market share of smuggled hand-rolling tobacco in the United Kingdom reached almost 80% in 2000 but declined to less than 50% in 2012.<sup>106</sup>

**Figure 14.13 Hand-Rolling Tobacco Market in the United Kingdom—Duty-Paid Versus Non-Duty-Paid Sales, 1990–2012**



Source: Tobacco Manufacturer's Association 2014.<sup>106</sup>

## Summary

Circumventing taxes on tobacco products through licit means (tax avoidance) and through illicit means (tax evasion) undermines the ability of tobacco control policies to reduce tobacco use. The most serious challenge is posed by large-scale smuggling, because it involves large quantities of tobacco products, has a greater impact on public health and regional economies, and frequently provides revenue for organized criminal networks and terrorist organizations. Previously internal tobacco industry documents, investigative reporting, and litigation show that tobacco companies at the global level have promoted and facilitated cigarette smuggling.

A variety of methods have been used to estimate the extent of tax avoidance and evasion, including consulting expert opinion, comparing tobacco product exports and imports, comparing tax-paid sales with consumption, surveying consumers' purchasing behaviors, comparing taxed sales with estimated consumption using demand analysis, and observational methods. Estimating the extent of tax avoidance and tax evasion is difficult, given that those involved may have a stake in keeping their involvement in these activities secret.

Large tax differences between jurisdictions create incentives for tax avoidance (e.g., cross-border shopping) and tax evasion (e.g., bootlegging). These incentives diminish as the distance between jurisdictions increases. In contrast, the evidence linking price to the level of large-scale illicit trade is mixed, indicating that factors other than price are equally or more important determinants. Large-scale illicit trade, generally conducted by criminal networks, flourishes in countries and regions with weak governance, high levels of corruption, and lax law enforcement, and where smuggling of other commodities is also common. Illicit trade routes are constantly evolving in response to governments' efforts to curb illicit trade.

Experience from many countries demonstrates that illicit trade can be successfully addressed, even when tobacco taxes and prices are raised, and curbing illicit trade results in increased tax revenues and reduced tobacco use rates. Government commitment to combating illicit trade is essential. Successful

strategies include implementing tracking and tracing systems; controlling the supply chain by licensing all parties involved in tobacco product manufacturing and distribution; implementing appropriate policies, stronger enforcement, and enhanced penalties; and international cooperation in investigation and prosecution of participants in illicit trade.

The ITP, the first protocol of the WHO FCTC, was adopted in November 2012. The ITP recognizes that illicit trade increases the accessibility and affordability of tobacco products, fuels the tobacco epidemic, undermines tobacco control policies, reduces government revenues, and helps to fund transnational criminal activities. Once in force, the ITP will oblige Parties to implement a variety of measures, with special emphasis on those that strengthen control over the supply chain of tobacco products, and to cooperate in global efforts to eliminate illicit trade in tobacco products.

## Research Needs

Research is needed to better understand the extent of tax avoidance and evasion, and the effectiveness of interventions to curb them. Generating adequate data on the extent of tax avoidance and evasion is challenging when illicit activities are involved. Developing reliable measures to determine the magnitude of the problem is essential, particularly in low- and middle-income countries, given that much of the existing data on tax avoidance and evasion come from North America and Europe. There is also a need to understand transfer pricing activities of multinational tobacco companies. A better understanding of the determinants of illicit trade—including the supply of illicit tobacco products—is needed in order to maximize the effectiveness of interventions to limit illicit trade. Systematic evaluations that examine the effectiveness of interventions to reduce illicit trade would contribute to the evidence base. Lastly, while much of the research to date has focused on cigarettes, illicit trade in other tobacco products is an area that would benefit from further research.

## Conclusions

1. Tax avoidance and tax evasion, especially large-scale smuggling of tobacco products, undermine the effectiveness of tobacco control policies and reduce the health and economic benefits that result from these policies.
2. In many countries, factors such as high levels of corruption, lack of commitment to addressing illicit trade, and ineffective customs and tax administration, have an equal or greater role in explaining tax evasion than do product tax and price differentials.
3. Illicit trade has sometimes included the involvement of tobacco companies themselves.
4. Experience from many countries demonstrates that illicit trade can be successfully addressed, even when tobacco taxes and prices are raised, resulting in increased tax revenues and reduced tobacco use.
5. Implementing and enforcing strong measures to control illicit tobacco trade would enhance the effectiveness of significantly increased tobacco taxes and prices and strong tobacco control policies in reducing tobacco use and its health and economic consequences.

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